# INSIDE THE BLACK (LIST) BOX:
# MONEY LAUNDERING, LAX FINANCIAL REGULATION, NON COOPERATIVE COUNTRIES

# A LAW & ECONOMICS APPROACH

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## 1. MONEY LAUNDERING, OFF-SHORE (LAX) COUNTRIES, FINANCIAL REGULATION: A RELATIONAL APPROACH

The role of Lax Financial Regulation (LFR) countries in international money laundering schemes has long attracted the attention of policy makers. Virtually all initiatives aimed at combating money laundering, both at the domestic and international level, tackle the issue. In the aftermath of "September 11th," growing attention has been paid to the role of LFR countries in ensuring terrorist financing, adding new perspectives to the debate concerning the initiatives to be taken against such countries.

Policy makers concentrate their attention on the negative effects of money laundering[1] and on the possibility that LFR centers might facilitate the task of criminal organizations. Concerns are raised by regulation adopted in LFR centers, that may greatly contribute to launder money of illicit origins. Alternatively, it is argued, such countries may work as conduit for flows of capitals to terrorist organizations.

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[1] Policy makers are mainly concerned with two sources of costs stemming from money laundering. Firstly, the possibility of laundering proceeds of crime affects the incentive of a potential criminal. In a world where money of illicit origins cannot be laundered the possibility of linking the capital to the crime reduces the *ex ante* incentive of the criminal to commit the crime in the first place. At the margin, more crimes will be committed if money laundering is possible. From this perspective, combating money laundering is equal, in the aggregate, to combating predicate offences. Secondly, capitals that are laundered return to the legal financial sector generating serious negative effects: Competition is distorted; the allocative efficiency of the market is undermined.

Two intertwined postulates commonly feature in the debate concerning the international market for money laundering services: a) money laundering is facilitated by lax financial regulation; b) countries that do not cooperate in the international effort aimed at combating money laundering adopt lax financial regulation. The ensuing observation is that non-cooperative countries contribute to the functioning of the international market for money laundering. For example, the Financial Action Task Force for the prevention of money laundering, has endeavored in an initiative aimed at identifying countries that do not cooperate in the global fight against money laundering; in so doing, the Fatf has identified criteria for defining Non Cooperative Countries and Territories (NCCTs), which are largely based on the notion of inadequate financial regulation[2].

Discussions concerning these issues, however, take often as a *given* the existence of some countries that offer financial services to organized crime, via the adoption of Lax Financial Regulation. In other words, the supply of money laundering services is treated as an *exogenous variable*.

This paper builds on previous work by the same authors,[3] taking a different perspective. We start from the assumption that financial regulation may be a strategic variable for countries that aim at maximizing revenues produced by money laundering. A country may find profitable the adoption of a of a financial regulation that attracts capitals of illicit orgins. We define such countries LFR countries. We argue that LFR countries are structurally different from other countries. More specifically, we will argue that:

1. the utility function of countries that favor money laundering is positively correlated to the existence of criminal activities abroad;
2. the utility function of such countries is not influenced by the negative effects of criminal activity, i.e., they do not bear the negative consequences of that criminal activity.

Our view is that there may be features of a given country that will naturally support the decision to adopt financial regulation that may in fact facilitate money laundering. In so doing, we take a relational approach, on the assumption that it takes two to tango: We treat regulation that can affect the ease with which money of dirty origins is laundered as a product. Within this framework, we focus on the relationship that is established between a given off-shore country and its customers, i.e. criminal organizations. We are less concerned with the main product offered by off-shore to potential launderers (i.e., for example, a strict banking regime) and more concerned with the features of the off-shore that help to support the exchange between off-shore centers and criminal organizations. These features may be of various nature. Particular attention will be paid, however, to the economic and institutional environment, loosely defined.[4] We look for features in the legal system as well as for specific rules that help to sustain the relation that off-shore and criminal organizations establish, thus determining the ultimate success of some LFR centers over others. Looking at the determinants of success in the competition among LFR countries, it is hoped, will help identify which countries are actively involved in money laundering. This might in turn allow to draw a line between centers that are merely aiming at offering better quality financial services and other centers that aim at attracting capitals of illicit origin, thus imposing significant costs over other countries. Grasping the factors that determine the success of some countries in the race to the bottom might also prove useful for policy makers in devising the most appropriate countermeasures[5].

[2] See paragraph 7.

[3] Masciandaro and Portolano. (2001)

[4] For example, as defined in NORTH, (1990) institutions include both formal and explicit rules and less formal rules such as norms.

[5] Our attention focuses on countries that try to attract proceeds of crime through the offer of financial services to criminal organizations abroad. We leave aside the broader question of the possible role of off-shore centers in

In examining the factors that may put a given country in an advantageous position over other countries we take an evolutionist perspective.[6] These factors need not necessarily be the result of a "conscious" choice of the country. Rather, they need to prove useful in the competition with other countries. The competitive advantage of a country might also be ascribed to the accidents of history, to geographical factors, or even to sheer chance. For example, the language spoken in the country might obviously play a role in the choice made by criminal organizations. An evolutionist approach implies that while we expect a great degree of functional convergence, different countries may choose different strategies to the same end. Solutions are likely to be diverse.

In discussing the possibility that some countries may act in order to maximize profits stemming from money laundering, we make a simplifying assumption, in that we treat single LFR country as a unitary decision agent. The assumption, albeit naïve, is coherent with the goal of the paper, that is to say, an evaluation of the dynamics of competition among off-shore centers, via the identification of "typical" features of LFR countries.[7]

Finally, we wish to stress that we are indebted towards a body of literature that we deem to be strictly, although indirectly, related to the subject matter of our research, i.e. the literature on the competition for corporate charters among the American States that compose the Union. More specifically, we apply the models developed by authors that have tackled the issue in the "transaction cost economics" tradition.[8]

The paper proceeds as follows. In the first part (paragraphs 2-5) we explore, from the theorethical point of view the possible determinants of success of a given country in the market for money laundering. In other words, we try to examine the conditions under which becoming a LFR country can be "convenient" for a given country: what are the geographical, institutional, and economic features that increase the probability that a given country become an LFR country? The

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generating and facilitating international financial crises. The latter issue has obviously attracted the attention of policy makers. This interest has also been spurred by the ever increasing integration of financial markets, which has increased the threat to financial stability posed by off-shore centers. See ERRICO and MUSALEM, (1999) FINANCIAL STABILITY FORUM. (2000)

[6] As defined in ALCHIAN, (1950) and BECKER. (1962)

[7] However, we will sometimes try to shed some light on the black box, in order to look at the possible role of interest groups within the off-shore center. Further research may try to write a thorough "public choice" history of the confrontation that we expect to take place in the political arena within each off-shore country

[8] See ROMANO, (1985), (1993). (1999). To be sure, the situation we examine is not directly comparable with the one examined by American corporate law scholars. The most obvious difference is that competition among the fifty American states takes place under the eye of Federal authorities, namely the Federal Government and the Supreme Court. Especially the latter has shown remarkable attention to the need to reduce the externalities produced by the states. On the other hand the results of a lively debate - dating almost 30 years – allow us to grab fundamental insights even in the context we deal with. The results of such a strand of literature help to develop a theoretical framework of analysis whose application to the subject with which we are concerned appears promising. The circumstance that competition among states takes place in completely different environments – be it the United States, the European Union, or the international market for money laundering services – does not obliterate the idea that competition is likely to respond to the same logic.

Indeed, what started out in the mid 1970s as a purely theoretical debate, evolved over the years into a feast of empirical studies. Measuring the impact of competition on the value of listed companies allows testing the validity of the theoretical conclusions. Despite the sometimes mixed evidence, that literature has gained a solid hold on the dynamics of competition among jurisdictions. More specifically, there appears to be a certain degree of consensus on when and why competition will evolve into a race to the bottom or to the top. We expect empirical research on competition among off-shore countries to be extremely difficult. Obvious factors predict an almost complete lack of information: Parties to money laundering schemes do not publish reports on the success of their operations. By contrast, listed companies supply a goldmine of data for financial economists to measure the impact of the different actions taken by the actors involved. The precision reached by event or accounting data studies does not appear duplicable in the context of the competition among off-shore centers. We therefore have at our disposal an analytical framework whose reliability has been thoroughly tested on the field.

second part of the paper (paragraph 6) provides a formal analysis and description of the possible dynamics that govern the decision to enter the market for money laundering. In the third part (paragraph 7) we empirically verify wether the theorethical features of a LFR country are consistent with those of the countries in the Fatf's list of NCCTs. The empirical evidence – as we shall see – is consistent, but not decisively so, with the hypothesis. However, we may be facing both Type I and Type II errors. On the one hand, there may be *de facto* LFR countries that are not included in the list; on the other hand, the evidence shows that the NCCTs included in the list are not entirely homogeneous. Both observations appear to be important for an overall assessment of the adequacy of the international response.

## 2. MONEY LAUNDERING SUPPLY AND LAX FINANCIAL REGULATION

As already noted, we treat regulation that can affect money laundering as a product, with a demand and supply schedule. But whose demand schedule is driving the system?

Assume that the policy maker in a given country has not yet decided the direction that it will impose on its financial regulation, with specific regard to money laundering. The policy maker may thus decide to implement a regulation that creates serious obstacles to money laundering, or it can decide to make the opposite choice, devising a regulation that facilitates money laundering.

Money laundering generates costs as well as benefits for the parties involved. The costs for society depend on the circumstance that more predicate offences will be committed if money laundering is possible and on the possible negative impact that money laundering will have on the financial system. The benefits of money laundering accrue, first of all, to criminal organizations, that can employ the proceeds of crime avoiding the threat of being prosecuted for predicate offences. On the other side of the transaction, money laundering offers to the launderer the possibility to earn a commission in exchange for its services. Four different categories of actors potentially interested in the regulation can be identified: a) the policy maker; b) criminal organizations, deriving utility from the possibility of laundering money of illicit origins; c) those who bear the costs of money laundering; d) the financial community. Starting with the latter, it does not appear easy to predict which side will the financial community take. For the sake of simplicity, we can think that the utility function of financial intermediaries does not appear to be affected by whether profits stem from legal or illegal financial activities, thus probably making them disinterested in the choice taken by the policy maker. The interests of b) and c) are obviously incompatible, as the gains of the former depend on the loss of the latter; a) appears to be caught in the middle, having to decide which demand schedule to follow.

Note that we are not assuming that b) and c) are necessarily based *outside* the country where the policy maker we are concerned with is based. This is not an assumption, but rather the consequence of our line of argument. As with all policy issues, as long as the costs and benefits of a decision fall within the boundaries of the area of influence of the policy maker, we expect to have an efficient decision. Policy makers in countries where crime is pervasive will tend to bear at least some of the costs associated with a decision to favor money laundering.

Countries where organized crime is pervasive appear to play a minor role in the offer of financial services at the international level. This might be so because the widespread presence of organized crime in the country increases for the policy maker the costs of a regulation that favors money laundering.[9]

[9] We are here leaving aside the possibility of corruption or even mere lobbying by groups interested in having a regulation favorable to money laundering. Through corruption, organized crime might be able to urge the adoption of legislation that facilitates money laundering. We believe this possibility to be less important than it may appear at first glance. For reasons that are developed *infra* in paragraph 3, a corrupted state will find it difficult to make a credible commitment not to expropriate the assets of illicit origins.

Citizens will bear the costs of the decision and will hold the policy maker responsible. Entering the international market for money laundering services has a greater potential for countries that are immune from criminal activities. Such countries will almost by definition be able to externalize the costs associated with the increase of predicate offences.[10] A negative correlation between crime rate in the country and the role played in the offer of money laundering services appears likely. At the same time, states that have fewer resources are potentially less attractive to criminals and will therefore be less vulnerable to the threats posed by money laundering. Such countries will thus be more likely to offer financial services to organized crime.

As a result of this process, some countries which do not bear the costs associated with money laundering become predisposed to adopt a regulation that facilitates money laundering. The other side of the coin is that both criminal organizations and those who bear the costs stemming from money laundering will "naturally" tend to be situated in countries other than the one where the regulation is adopted.

We have thus limited our attention to policy makers that are based in countries other than the ones in which the other actors potentially interested in the regulation are based. From this starting point, the confrontation between those who benefit from money laundering and those who suffer from money laundering is almost a "win win" game for criminal organizations. Organized crime experiences huge asymmetrical organizational advantages over those who bear the costs of money laundering. A small and powerful group faces a large and dispersed group, thus making the outcome predictable.[11] Even assuming that organized crime 1) commits the predicate offences in a given country, 2) launders the proceeds abroad, and 3) then lets the capital flow back into the first country, the costs are spread throughout the society.

However, the costs can be spread even further. Predicate offences can thus be committed in the country where organized crime is based, while the capitals can be introduced, once laundered, into a different country. The overall costs of money laundering will therefore fall on an even larger community, spread over (at least) two countries, thus exacerbating the collective action problem faced by those who bear the costs of money laundering. A single citizen will bear an even smaller fraction of the costs, thus creating the scope for enormous free riding problems that prevent a reaction from the public.

To be sure, money laundering regulation could be opposed, and is indeed opposed, by the political authorities that represent the public interest. The dispersion of the costs, however, makes money laundering a low salience issue for the public, and consequently quite low on the political agenda. The man on the street simply does not feel the bite of money laundering, and political actors will act consequently.

The above described line of argument helps to shed light on the theorethical explanations for the casual observation that LFR countries tend to be small, most often they also tend to be islands. In explaining the determinants of the size of "political units", economic historians have focused on the pressure that are generated by the need to internalize costs associated with economic activities. For example, North and Thomas explained the growth of nation states in the middle age with the need for "political units" that may internalize the costs required to support the expansion of trade.[12] In the competition among "political units", only those that were able to grow were able to exploit the opportunities from the expansion of trade. A converse effect appear

[10] These countries will still be exposed to the other source of costs above identified, i.e. the distortion of the functioning of the financial market. This source of costs, however, can be controlled through "ring fencing" practices, on which see *infra*, in the this paragraph.

[11] See OLSON, (1965) for a classical exposition of the dynamics of collective action.

[12] "The countries that altered their fundamental institutional arrangements to exploit these opportunities grew, but it was not inevitable that this would occur. For as trade was expanding a need was created for larger political units to define, protect, and enforce property rights over greater areas (thus internalizing some of the costs of long-distance commerce)", North and Thomas, 1973, at 94.

to be at work when we come to LFR countries. The need to externalize costs associated with money laundering generates pressures that tend to select countries that are better equipped for the job, countries that may keep organized crime – and the costs associated to it – outside of the country. Insularity thus becomes a tool in the competition with other countries, making it more difficult for organized crime to penetrate the country. Money laundering usually represents – it should not be forgotten – the financial flipside of criminal activities that may represent a great threat to society. Other things being equal, a "small" state may suffer *less* from the diffusion of criminal activities than a large state. By being a small island, for example, an LFR country will be able to keep the costs associated with money laundering outside the country. Of course, the possibility to eat the cake and have it too, to partecipate in the market for money laundering while externalizing the costs of such partecipation is largely made possible by information technologies, that make it possible to be fully integrated in international financial markets without any need for phishical links of any sort and without the need to show a relevant size

## 3. OPPORTUNISM, COMMITMENT, AND MONEY LAUNDERING

The paragraph above shows that some countries will be able to externalize the costs associated with money laundering, thus being in an advantageous position *vis-à-vis* their competitors. This advantage, however, does not resolve all problems faced by a potential LFR country.

A closer look at the exchange reveals the problems that need to be solved by both parties. For sake of simplicity, we will juxtapose two parties, Criminal and Off-shore. Consider a single money laundering operation: It is not a simultaneous game. Parties do not exchange at arm's length a service for a price or a good for a price. It is rather a game in which one party moves first and the other one moves second. That is to say, Criminal has to move first, deciding whether to put the assets of illicit origin into the hands of Off-shore or not. Criminal is, therefore, a particularly vulnerable consumers of Off-shore's products. Assume that Criminal decides to move. Once the capitals are in the domain of Off-shore, the latter moves. The agreement is to the effect that Off-shore will launder the assets, keep a commission for this services, and then return the laundered assets to Criminal. By so doing, Criminal will earn the commission, a fraction of the overall amount of the assets. Off-shore, however, may choose another strategy. It can decide not to cooperate and rather to appropriate the assets. By definition, this strategy implies that the pay off to Off-shore will be bigger than if it decided to cooperate.[13] In game theoretical jargon, the strategy of non cooperation is a strictly dominant strategy: Off-shore will always decide to appropriate.[14]

There is, in short, the threat of *ex post* opportunistic switches by off-shore centers. In the context of the relation among off-shore centers and criminal organizations, appropriation might take several forms, running the full gamut from outright taking to merely not responding to the need of keeping financial regulation up to date.

The threat of opportunistic behavior feeds back into the incentive structure of Criminal. *Ex ante* the exchange, Criminal perceives the possibility that Off-shore will appropriate the assets; this result unravels thus implying that Criminal will not put the assets in the hands of Off-shore in the first place, in order to avoid a sure loss. The threat of *ex post* opportunistic behavior by Off-shore translates into the lack of any exchange. Note that this is a negative result for both parties to the (potential) exchange. Had they been able to cooperate and to realize the exchange they would have both gained, Criminal from the laundering of the proceeds, and Off-shore from the price charged for the service. Despite the potential for a mutually beneficial exchange, the non-

[13] That is to say that the pay-off to Off-shore will be represented by the *whole* amount of the assets and not by a mere commission.

[14] For a classical account of an *ex post* opportunistic breach by a state see GRANDY. (1989)

simultaneous nature of the game will result in a Pareto move non being made. Unless Criminal will be assured that Off-shore will not behave opportunistically, the exchange will not take place. In other words, the problem is one of transforming a non-cooperative game into a cooperative one.

The problem is exacerbated by the environment in which the relation between Criminal and Off-shore takes place. As it is well known,[15] the existence of a state providing an efficient contract law and an efficient enforcement system might manage to help the party to cooperate. Off-shore and Criminal, however, bargain in the absence of a superior authority that might perform such function. The threat of opportunistic behavior is further exacerbated by the circumstance that one of the parties, i.e. Off-shore, plays also the role of the enforcer.

But this is not the end of the story. To be sure, Criminal perceives the threat of *ex post* opportunistic behavior by Off- shore and will act consequently, but also Off-shore perceives that Criminal will not accept the exchange. Solving the problem is in the interest of both parties: In the absence of a superior authority this becomes the province of endogenous mechanisms of governance.[16] More specifically, the parties will have two different but interrelated lines of action, that are capable of transforming a non-cooperative game into a cooperative one.

On the one hand, a non-cooperative game may become a cooperative game if repeated over time.[17] We expect Off-shore and Criminal to develop a relational contract, a relation between parties that lasts over a long period of time.[18] Rather than playing single money laundering games with different counterparts, parties will have an incentive to play repeatedly with the same opponent. From this point of view, the regulation adopted by Off-shore can be regarded as the contractual framework which will govern the relationship as events unfold.[19]

The second and interrelated line of action aims at reinforcing the relationship. If the main difficulty for Off-shore is gaining Criminal's confidence that it will not renege on the agreement, then the issue becomes one of devising a credible commitment not to behave opportunistically. The competition for attracting the capital of illicit origins will be won by countries that will be able to credibly resolve the commitment problem.

On its face, this observation explains why do not find "corrupted" or "criminal" countries on the supply side of the market for criminal financial services. A Banana Republic, for example, would face immense difficulties in making a credible commitment not to switch course in the middle of the contract. The mere threat that a *coup d'état* may at any moment overthrow the current regime makes the commitment not credible. Successful states will tend to show a stable political situation.[20]

Extreme cases of political instability aside, however, the way FLR country can commit not to behave opportunistically *ex post* the exchange depends on its ability to invest in what Williamson terms "transaction specific assets,"[21] i.e. assets that have a much higher value when used in a specific transaction rather than in different uses. Transaction specific assets cannot profitably be redeployed outside the original relation. Once a party has invested in such assets, therefore, it has an incentive to continue the relationship, lest it will lose the value of the

[15] See, for example, COOTER et al. (1999)
[16] WILLIAMSON, (1985). (1996)
[17] This is only true, however, leaving aside end game problems, i.e. problems that arise when it comes the last period and the parties know that they will not play together anymore. See COOTER et al., (1999) AXELROD. (1984)
[18] The literature on relational contracting is immense; leading contributions are WILLIAMSON, (1979), (1985); (1996) MACNEIL. (1978)
[19] Of course, bounded rationality implies that this contract cannot be complete, i.e. it cannot foresee all contingencies. As we shall see in the next paragraph, this limitation has fundamental consequences for the governance of the relationship, mandating the adoption of some form of *ex post* governance structure.
[20] Which does not imply that they will tend to be democracies.
[21] WILLIAMSON, (1985). (1996)

investment. In other words, Off-shore will need to post a hostage,[22] i.e. an asset whose value will be lost in case the relationship breaks down due to an opportunistic switch by FLC country itself.

The most obvious hostage, commonly used in such settings, is reputation. Reputation is often of one and only one use, thus making investments in such asset sunk. Asset specificity is a common feature of reputation. However, reputation for offering efficient money laundering services, free from the risk of *ex post* opportunistic behavior, appears to show an extreme degree of asset specificity. Such reputation requires an intricate set of rules and mechanisms. More specifically, regulation of the financial sector will need to be tuned to reach this goal: The rules concerning banking secrecy, incorporation of business entities, cooperation with supervisory authorities abroad, the duties to report suspicious transactions, to identify and register customers, all these rules will need to be shaped according to the goal of providing an efficient money laundering service.[23] Investments need to be made in order to gain a reputation for providing such an efficient service.

Paradoxically, the value of these investments in the closest use is probably negative, rather than being merely zero or little more. A country that has chosen to invest into the financial technology necessary to build a solid reputation as a supplier of first class money laundering services will experience immense difficulties in converting such investments into the next best use. Potential partners of the financial sector situated abroad may be rather skeptical about the credibility of the change in strategy by the LFR country. Should these LFR countries decide to switch course and convert their financial system to lawful uses, they may well start from a negative point rather than merely from zero. Investments will be needed in order to nullify the reputation as a supplier of criminal financial services; once this goal is reached, further investments will be required in order to build from scratch a new reputation, as a supplier of lawful financial services.

So far we have examined reputation as a pre-committing device. LFR country however, may use another means to the same results. LFR countries tend to rely on income generated by their financial activity; therefore a change in the policy would be extremely costly for them. This is so because they would experience a severe damage to their level of income.

This observation helps to explain why we can image to find among LFR countries that experience a low level of income: They need to continuously offer financial services to criminal organizations because they want to preserve their level of income or maybe increase it. It is of no help, however, in explaining why countries that have a high level of income do not enter the market for money laundering services. There are great chances of generating huge flows of income through money laundering. Why is it that countries that are already rich from other sources do not engage *also* in money laundering? On the one hand, such countries are potentially more attractive to criminals as a possible market for their predicate offences. Such countries would thus bear the costs of a policy sympathetic to money laundering. Money laundering will thus be a more profitable game for countries that are not attractive to criminal organizations.

Furthermore, dependence on income generated by money laundering is yet another committing device.[24] A country whose level of income is dependent on the supply of criminal financial services will be committed to offer those services. Such a country might need to fight vigorously in order to preserve its level of income. Countermeasures taken by the international community may urge it to aggressively defend its position. Compare this case with the one of a country whose level of income stems from several sources. The loss generated by the repeal of a

[22] WILLIAMSON. (1983)

[23] Of course for some of the subjects mentioned in the text the efficient rule, from the reputational point of view, will be simply no rule, as it is the case with duties to report suspicious transaction reports.

[24] ROMANO, (1993) interprets Delaware's dependence on income generated by franchise taxes as a pre-committing device.

policy that attracts capitals of illicit origins will be equal to a fraction of the overall income generated by the state. The incidence of the loss is thus, by definition, less severe.

Dependence on revenues produced by money laundering makes an off-shore a hostage to its own success. In turn, this hostagelike dependence reinforces the bilateral relationship between criminal organizations and LFR countries. The former is exposed to the threat of opportunistic behavior, but the second is exposed to the risk of losing reputation and revenues should it behave opportunistically. Both parties gain from preserving their relationship.

## 4. GAPS

The contractual relation between LFC countries and Criminal is governed, in the first place by the regulation put in place by LFR country. In a world of bounded rationality, however, contracts are hopelessly incomplete. The implicit contract stipulated by LFC country and Criminal is no exception. The regulation cannot specify *ex ante* all future contingencies. Gaps in contracts are always inescapable, but in the setting we are concerned with the problem appears to be exacerbated by the possibility that one party to the exchange might not reveal all relevant information to the other. The illicit origin of the capitals involved appears to create an incentive for Criminal to hide some information to LFR country. In fact, there may well be instances in which Criminal will have a clear incentive to disclose false information to LFR country. Beyond the ordinary incompleteness deriving from the costs necessary to write contract clauses,[25] there is an increased risk that the contract will suffer from "strategic incompleteness."[26]

Be it the result of transaction costs or of strategic behavior, less information translates into more gaps in the contract. The need arises for gap filling devices that allow the party to work out contingencies that were not provided for at the outset.

A country that will be able to offer gap filling devices of superior quality will be in an advantageous position. This shifts the focus of attention towards those features of the legal system that come under severe pressure when it comes to the *ex post* governance of unspecified contingencies.

We focus on one specific feature that supports the exchange, i.e. the judicial system. The regulation adopted by LFR country fills gaps *ex ante*, up to the point where the marginal cost and benefit of an added rule are equalized. Remaining gaps will be filled*, ex post*, by judges. To be sure, the probabilities that a given dispute between criminal organizations and their counterpart inside the LFR center will go to court might appear low, and indeed it seems reasonable to assume so. At the same time, however, the huge amounts of capitals at stake implies that even with a low probability of a dispute actually going to court, an efficient judiciary might still entail for the parties a high present value. An efficient judiciary works as a last resort mechanism, capable of generating positive externalities on ongoing relations, regardless of whether they actually go to court.

Keeping the quality of regulation constant, therefore, the package that will include the most efficient judicial system will tend to prevail in the competition.

The importance of the judicial power in ensuring the success of an off-shore center appears underscored also from a different perspective. The need to fill gaps *ex post* does not necessarily imply that the gap filling function *has* to be entrusted to judges. At a purely theoretical level, LFR countries could chose to allocate the gap filling function in the same decisional center responsible for the adoption of the regulation. This solution would probably be infeasible for very practical reasons. When the decision making agent that has written the regulation in the first place is a collective body, say a parliament, entrusting in it the gap filling function would be very

[25] On which see WILLIAMSON. (1985)
[26] Strategic incompleteness is explored in AYRES and GARTNER. (1989)

impractical.[27] But assume *arguendo* that the *ex ante* and *ex post* gap filling functions are joined. Problems of opportunism aside, this might imply greater familiarity with the issues involved and therefore a higher probability that gaps will be filled in a way consistent with the interest of both parties. By contrast, this advantage is partially lost if the function to decide *ex post* what the parties involved would have wanted is shifted to a third party.

Putting the threat of opportunistic behavior back in the picture, however, reveals another advantage of an efficient judiciary. An increased role of judges in filling gaps can also be thought of as one more tool in the "pre-committing" package that a country offers to potential customers. Assigning the task to fill the gaps in the incomplete contract to a judge might also serve another function: *À la* Madison,[28] fragmenting the powers among many decision making agents helps to ensure that none of them will be able to abuse those powers. An opportunistic switch by the legislative body is likely to require validation by the judiciary. The country that strictly separates the *ex ante* from the *ex post* gap filling function will make its commitment more credible.[29]

## 5. THE DEVELOPMENT OF THE INSTITUTIONAL ENVIRONMENT

Some natural features of certain countries appear to be capable of putting them in an advantageous position in comparison with other countries. The reference to the "natural" character of such features should be intended to imply that they are not the result of a specific choice of the off-shore center. It is rather the other way around. These features are sometimes the result of the accidents of history; in some cases they have even been imposed on the LFR center. Take the adoption of a given legal system, which is virtually always the result of the colonization of the country by another country that adopted that system. The "natural" features of a winning LFR country will show a sort of "macro" aspect: A low crime rate, the lack of natural resources, the adoption of a common law regime, for example.[30]

However, once these features have put the LFR country down the path of competition with other off-shore centers, a demand will arise for institutions that help the LFR country to compete more vigorously. Competitive pressure will urge the adoption of tools that prove useful in the struggle for survival. Starting from the initial positions, a process of refinement through the adoption of newer institutions seems likely. As this process unravels, "micro" institutional devices will be put in place. Interest groups inside the FLR center will lobby for complementary institutions that increase the value of the existing ones. The institutional environment inside the LFR country will thus be driven, domino-like, by a chain of linked complementary institutions,[31] that will add to the survival value of the overall package.

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[27] Every dispute should be examined by a structure whose decision making costs are high, especially if compared with those borne by a single decision making agent, say a judge. The latter can ensure a much higher speed of response, thus being able to handle more issues than the former. Quite obviously, the mere circumstance that in the real world the task to resolve disputes *ex post* the exchange is indeed entrusted in third parties shows that different solutions would be impracticable.

[28] See the famous *The Federalist n. 10*, MADISON. (1787)

[29] This observation obviously paves the way for questions concerning the procedures with which judges are appointed and the possible effects of the procedure on the incentive structure of the judge. For example, life tenure is likely to produce different results from a three year term with the possibility of being appointed again.

[30] Of course the distinction between "macro" and "micro" institutional devices should not be regarded as one of "quality" but rather of "quantity," and we use it for mere sake of exposition. With the former we refer to more general and profound institutional features, that tend to characterize a given country with respect to another. By "micro" institutional devices, by contrast, we mean rules that have a more detailed character.

[31] The observations in the text are based on GILSON. (2000)

The task of newer institutions appears to be twofold. First, they need to contribute to the overall efficiency of the regulation offered to customers of the off-shore. For example, a strict banking secrecy regime, or rules that protects the anonymity of beneficial owners of accounts.

Far more interesting for the subject of this paper appears to be, however, the second function of these "micro" institutional devices: Over time, institutional devices that buttress the commitment by the LFR center are likely to materialize.

How will these pre-committing devices look like? Anything that limits the ability of the LFR country to renege on the agreement with the criminal organizations will do the job. The process of differential survival will select the solutions that serve the pre-committing function. While we expect to observe functional convergence, we also expect to observe a diversity within these devices, whose spectrum is likely to range from a formal and explicit set of rules, for example constitutional rules, to mere norms.

The most obvious example is a supermajority requirement for the repeal of certain pieces of legislation. A rule that states that banking secrecy regulation can be repealed only upon the vote of, say, two thirds of the legislative body makes it more difficult for the LFR country to switch course after Criminal has moved.[32] A second device could be a provision to the effect that repeal or modification of a given piece of regulation requires prior approval by organizations representing interests that benefit from regulation sympathetic to money laundering. For example, the need to obtain the consensus of the bankers' association or the bar will make it more difficult for LFR country to renege on the agreement. Financial institutions, lawyers, and any other group that makes a business out of the supply of financial services within an international money laundering scheme will fiercely lobby against any initiative that undermines the credibility of the commitment. Even a mere customary norm that requires consultations with the interest groups involved will do, as long as it increases for LFR country the costs of changing course of action and behaving opportunistically.

To be sure, none of these devices is, in itself, a showstopper. Any rule that aims at making the procedure more cumbersome might be repealed thus allowing for the subsequent repeal of the pro-money laundering rule. Take a procedural rule that requires consultations to be held before any modification of rules concerning the financial system may be approved. In anticipation that the financial sector will oppose a change in the regulation that would imply an opportunistic switch, the legislative might first vote to repeal the procedural requirement, and then move on to approve the modification of the regulation. Yet, such a procedure is on its face cumbersome itself. The rule still reaches the goal of increasing the costs of an *ex post* opportunistic switch, thus helping to fortify the credibility of the commitment.

[32] See ROMANO (1993), for the description of a similar provision in Delaware.

## 6. MONEY LAUNDERING SUPPLY AND LAX FINANCIAL REGULATION: A SIMPLE MODEL

In defining the optimal characteristics of financial regulation aimed at promoting an influx of funds for laundering into a given country, we focus on the actions of a national policymaker in what we shall call a Lax Financial Regulation (LFR) country.

Let us assume that this Authority is aware that a potential demand for money laundering exists on the part of one or more criminal or illegal organizations for a total amount equal to *W*. The Authority can decide to launder an amount of cash equal to *Y,* where of course 0<Y<W.

Calling *U* the utility function of the Authority, it is obvious that the expected utility from unlaundered profits is zero, whatever their amount:

$$U(W - Y) = 0 \qquad (1)$$

On the other hand, every dollar laundered has a positive expected value for the Authority, since the LFR country derives benefits from offering financial services that facilitate money laundering. In the preceding paragraphs we showed how a country can derive economic advantages from favoring money laundering. In particular, one might hypothesize that the *lower* the national income and the *higher* the proportion of that income that depends on the financial industry, the greater will be the propensity to offer money laundering services, all other things being equal. Let us define those expected benefits as *national money-laundering benefits*.

Then the fact that the laundered cash, which we shall indicate with *Y*, has a positive expected profitability for the Authority may be grasped by imagining that the monetary value *B* of this benefit is equal to:

$$B = (1 + r)Y = mY \qquad (2)$$

where *r* is the mean expected rate of return on the money laundering services offered.

If, now, the decision to launder were cost-free, indicating with *Y* the amount of illegal funds for which the Authority institutes the money-laundering service, it is a simple matter to see that we shall have *Y* = *W*. But things are not that simple.

In the first place, an LFR country may be subject to *national reputation costs*. In the preceding paragraphs we stressed that to be more attractive to criminal organizations, a country must make legislative and regulatory choices that increase its credibility as an LFR country. These choices may carry a reputation cost, however, since it cannot be excluded that being an LFR country can cause negative kickbacks, whether in relations with capital, intermediaries and companies sensitive to integrity or with international relations in general.

Secondly, an LFR country must consider that laundering money means strengthening organized crime, i.e. there may be *national crime costs*. The Authority must first consider the possibility that domestic social damage may derive from the fact that the country is a possible growth engine for criminal organizations. It is obvious, on the other hand, that the less the LFR country registers the actual or potential presence of criminal organizations internally, the lower the costs of crime will be perceived.

The cost $C$ of offering money laundering for an LFR country will therefore consist of two parts. First, let us assume that the reputation cost is proportional—according to a parameter c >0—to the amount of cash it is asked to launder. Secondly, there will be a crime cost whose expected value rises as the laundered money increases, for a multiple of the parameter ⇳>0. Let us assume, that is, that for political-electoral reasons the Authority of the LFR country, all other things being equal, is more sensitive to the crime cost, which can weigh directly on the country's citizens, than to the reputation cost, whose effect on the citizens-voters is probably less perceptible and direct. We therefore have:

$$C = cY + \gamma^2 Y \qquad (3)$$

Lastly, we must consider, as pointed out earlier, that being an LFR country is an increasing source of economic, political and social risk for the international community. Therefore, when a country decides whether and to what extent to institute a regulatory design that will in essence offer money laundering services, it must consider that this activity is risky, since we assume that the international community might consider it a censurable policy, perhaps even prohibited, and as such subject to sanctions and punitive countermeasures.

Let us assume, therefore, that offering money laundering services brings with it an international sanction, whose equivalent monetary value is $T$, and a probability $p$ that this conduct will be discovered by the international community and thus sanctioned. Let us call these risks the *national cost of international sanctions*.

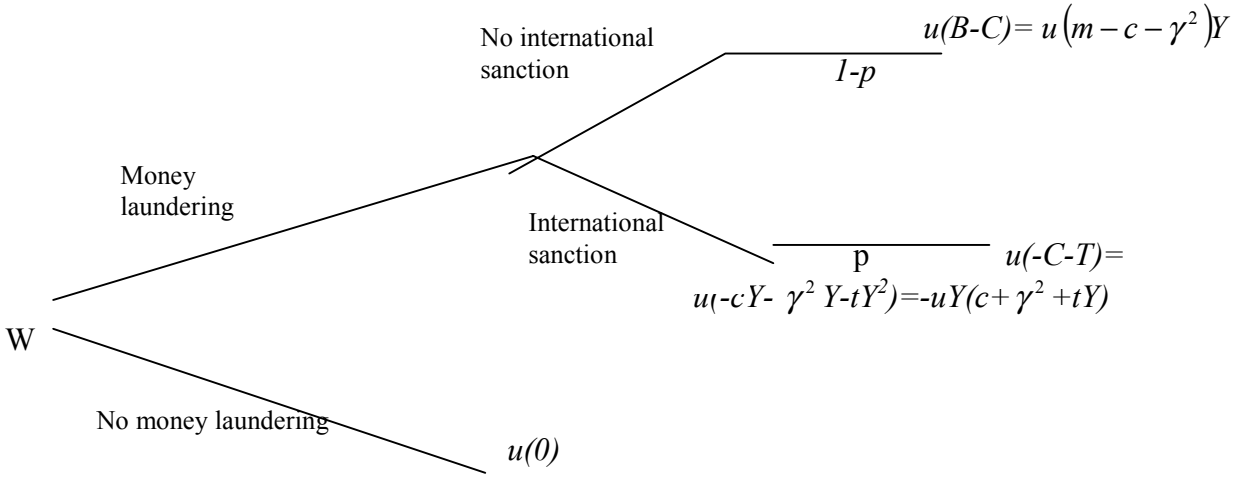
The monetary value of the damage from sanctions $T$ against the money-laundering must be at least equal to the value $Y$ of the laundered money. In reality, the damage from a sanction is certainly a multiple, because of the value of the intangible damages related to such a sanction. So we can assume that the amount of the international sanction is a multiple of the “laundry” volume, equal, for simplicity of computation, to the square of that sum.

And we should also consider that once the crime is discovered, the international community would apply the sanction with a varying degree of efficiency and/or severity. The rapidity and procedure for applying the punishment may be variable, affected by national or international structural variables; this *severity* (or, on the contrary, the leniency) with which the sanction is applied can be expressed by variations in the parameter $t$:

$$S = tY^2 \qquad (4)$$

Thus the dilemma of choice facing the Authority is the following: if I design regulations that favor the offering of money laundering, and the international community does not sanction it, the benefit for the LFR country is positive, net of the expected cost associated with reputation and crime risks. If, on the other hand, the LFR country is hit by an international sanction, it will not only sustain the expected costs but will also be damaged by the international sanction

Graphically:




Having defined the terms of the problem, the Authority is thus faced with the problem of deciding whether and how much to launder. The Authority's expected utility *E* can now be better specified as:

$$E(U) = u\left[(1-p)(B-C) - p(C+T)\right] \qquad (1)$$

But since we have stipulated $B = (1+r)Y$ and $C = c\,Y + \gamma^2\,Y$ then 1) becomes:

$$E(U) = u(1-p)\left\{(1+r)Y - cY - \gamma^2 Y\right\} - up\left(cY + \gamma^2 Y + tY^2\right)$$

The linear specification of the function of Authority utility tells us that it is a neutral risk subject. This utility function is consistent with the opportune economic characteristics in this situation. In fact:

$$\frac{\partial E}{\partial p} = u\left[-(1+r)Y + cY + \gamma^2 Y - \left(cY + tY^2 + \gamma^2 Y\right)\right] = uY(-tY - 1 - r) = uY(-tY - m) = -uY(tY + m) < 0$$

$$\frac{\partial E}{\partial t} = -upY^2 < 0$$

$$\frac{\partial E}{\partial m} = u(1-p)Y > 0$$

In other words, we find that the utility for the Authority, and therefore for the FLR country, declines as the probability of an international sanction and its severity increase, while it increases as the expected return on the money laundering activity increases.

The Authority must now determine the optimal level $Y^*$ of money to launder, bearing in mind that the maximum resources available to him, given the potential demand expressed by the criminal organizations, amounts to $W$. Deriving (4.5) twice for that variable subject to the Authority's decision—to observe the conditions necessary and sufficient for a maximum—we find that:

$$\frac{\partial E}{\partial Y} = u\left[(1-p)\left(m-c-\gamma^2\right)-pc-2tpY-p\gamma^2\right] = u\left[(1-p)m-c-\gamma^2+cp-cp-2tpY\right] =$$

$$-u\left(2ptY+c+\gamma^2-m(1-p)\right)$$

$$\frac{\partial^2 E}{\partial Y} = -2upt < 0$$

The function reaches its maximum at the point

$$\frac{\partial E}{\partial Y} = 0$$

i.e.:

$$\left(2ptY+c+\gamma^2-m(1-p)\right)= 0$$

which gives us:

$$Y^* = \frac{m(1-p)-c-\gamma^2}{2pt}$$

Let us observe that for $Y^* > 0$ it must be $m(1-p)-c-\gamma^2 > 0$ , i.e. the factor of expected benefit from the money-laundering activity, considering the probability of an international sanction, is greater than the sum of the reputation and crime cost factors. Let us define this condition as *leniency condition*.

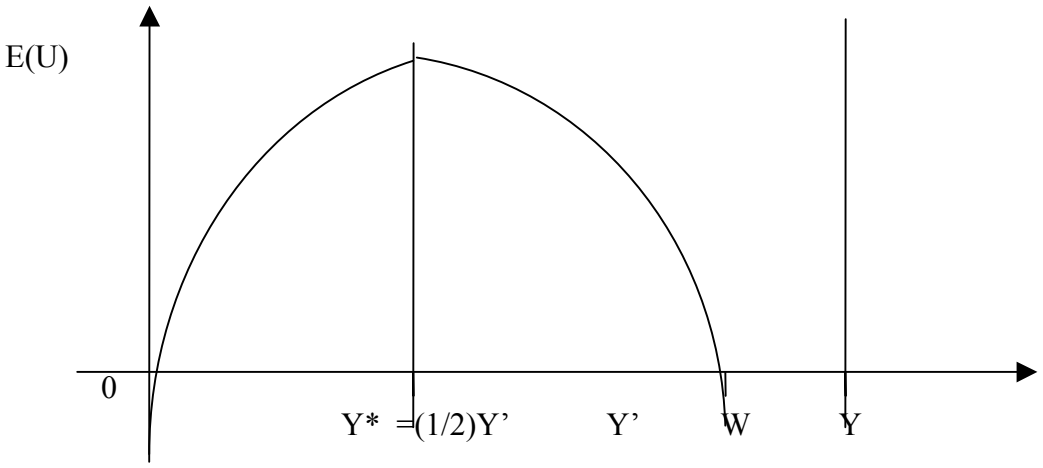



Figure 1

The critical value $Y'$ marks the limit beyond which it is definitely optimal for the Authority to abstain from offering money-laundering services. Over a certain amount the damage associated with the risk of being punished by the international community is so high that the expected utility is negative, so being an FLR country would not be beneficial. All other conditions being equal, this result depends on the fact that the amount of the sanction is a multiple of the cash to be laundered, so as this value rises the damage from detection of the crime rises more than proportionately.

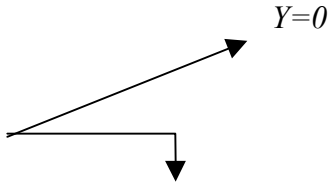
The critical value $Y'$ must, of course, be compared with the level of potential demand for resources to launder $W$. If $Y' < W$ (as in Figure 1), the amount of resources ($W$ - $Y'$) will be excluded *a priori* by any laundering decision. If, on the other hand, $Y' > W$, laundering is potentially advantageous for all the available illegal resources; we must then determine the actual optimal level $Y^*$.

Let us see to what value $Y'$ corresponds:

$$E(U) = u\left[(1-p)\left\{(1+r)Y - cY - \gamma^2 Y\right\} - p\left(cY + \gamma^2 Y + tY^2\right)\right]$$

$$E(U) = uY\left[(1-p)\left(m - c - \gamma^2\right) - cp - p\gamma^2 - tpY\right]$$

therefore $E(U) = 0$ when




$$Y' = \frac{\left[(1-p)\left(m - c - \gamma^2\right)\right] - cp - p\gamma^2}{tp} = \frac{(1-p)m - c - \gamma^2 + \gamma^2 p - \gamma^2 p + cp - cp}{tp} = \frac{(1-p)m - c - \gamma^2}{tp}$$

The critical value *Y'*—or, if we prefer, the propensity to launder (absolute or, if divided by W, relative)—will depend on the structural parameters of the model. In fact, if the condition of leniency prevails, from;

$$Y' = \frac{(1-p)m - c - \gamma^2}{tp}$$

we find:

$$\frac{\partial Y'}{\partial p} = \frac{-mpt - t\left[(1-p)m - c - \gamma^2\right]}{(pt)^2} = \frac{-mpt - tm + tpm + ct + t\gamma^2}{(pt)^2} = \frac{\left(c + \gamma^2 - m\right)t}{(pt)^2} = \frac{c + \gamma^2 - m}{p^2 t} < 0$$

$$\frac{\partial Y'}{\partial t} = \frac{-p\left[(1-p)m - c - \gamma^2\right]}{(pt)^2} = \frac{c + \gamma^2 - m(1-p)}{pt^2} < 0$$

$$\frac{\partial Y'}{\partial m} = \frac{(1-p)}{pt} > 0$$

$$\frac{\partial Y'}{\partial c} = \frac{-1}{pt} < 0$$

$$\frac{\partial Y'}{\partial \gamma} = \frac{-2\gamma}{pt} < 0$$

Regarding the reactivity of the propensity to money laundering with respect to the probability of international sanction and its severity, it is crucial to assume that the condition of leniency exists. In this case, policies that are more effective (increasing *p*) and/or more severe (increasing *t*) reduce the propensity to become an LFR country.

Conversely, an increase in profitability for the LFR country from money-laundering activity (by increasing *m*) increases the propensity of the Authority toward laxity; likewise, the reputation and criminal costs of the laundering operations (by decreasing *c* e ⇳) increase it.

As with the potential propensity toward laxity, we can also evidence the relationship with the structural variables of the model for the optimal offering of money laundering. Firstly, the optimal offering of money-laundering will be inversely proportional to the probability of international sanctions (Figure 2):

$$Y^* = \frac{m(1-p) - c - \gamma^2}{2pt} = \frac{1}{2}Y'$$

$$\frac{\partial Y^*}{\partial p} = \frac{-2mpt - 2t\left[(1-p)m - c - \gamma^2\right]}{(2pt)^2} = \frac{-2mpt - 2tm + 2ptm + 2ct + 2t\gamma^2}{(2pt)^2} = \frac{-2tm + 2ct + 2t\gamma^2}{(2pt)^2} =$$

$$= \frac{\left(c + \gamma^2 - m\right)}{2p^2t} < 0$$

$$\frac{\partial^2 Y^*}{\partial p} = \frac{-4pt\left(c + \gamma^2 - m\right)}{4p^4t^2} = \frac{m - c - \gamma^2}{p^3t} > 0$$

Therefore, since we have assumed $m > c + \gamma^2$, we find that the first derivative is negative, so the function decreases as the probability of detection increases and the concavity faces upward. i.e. the second derivative is greater than zero. This means that the optimal level of money laundered by the LFR country decreases as the probability of international sanction increases, but to a gradually lesser degree.

Y* (p) =0, i.e. it intersects the x-axis at point:

$Y^* = \frac{m(1-p) - c - \gamma^2}{2pt} = 0$ which means:

$$(1-p)m - c - \gamma^2 = 0 \quad \Rightarrow m - pm - c - \gamma^2 = 0 \Rightarrow p = \frac{m - c - \gamma^2}{m}$$

and we can also say that for

$p \to 0 \quad Y^* \to +\infty \qquad p \to 1 \quad Y^* \to \frac{-c - \gamma^2}{2t}$

As expected, when there are no costs for the LFR country related to its laxity (i.e. $c + \gamma^2 = 0$), that country will abstain from offering money-laundering services (Y*=0) only when the international sanction is absolutely certain (p=1).

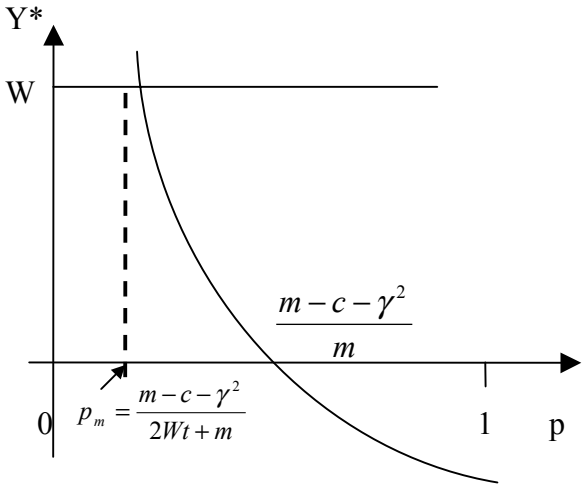



Figure 2

As p tends toward zero, the optimal level of money that it is beneficial for the Authority to launder tends to $Y^* \to +\infty$, but the Authority has available a maximum demand of W, so it must stop with the curve on the probability level at the point where $Y^* = W$.

Let us then find the minimum possible value $p$ can take ( $p_m$ ), i.e. at the point where $Y^* = W$:

$$Y^* = \frac{m(1-p_m)-c-\gamma^2}{2p_m t} = W$$

$$m - p_m m - c - \gamma^2 = 2Wp_m t \quad \Rightarrow 2Wp_m t + p_m m = m - c - \gamma^2 \quad \Rightarrow p_m(2Wt+m) = m - c - \gamma^2$$

$$\Rightarrow p_m = \frac{m-c-\gamma^2}{2Wt+m}$$

Secondly, the laxity of the LFR country is affected by the severity of the international community in applying the sanction (Fig. 3): the severer the authority, the more profitable it will be to attempt to launder dirty money.

$$Y^* = \frac{m(1-p)-c-\gamma^2}{2pt} =$$

$$\frac{\partial Y^*}{\partial t} = \frac{-2p\left[m(1-p)-c-\gamma^2\right]}{4p^2t^2} < 0$$

Therefore $Y^*$ decreases as $t$ increases. When $t$ tends to $+\infty$ the first derivative is nullified.

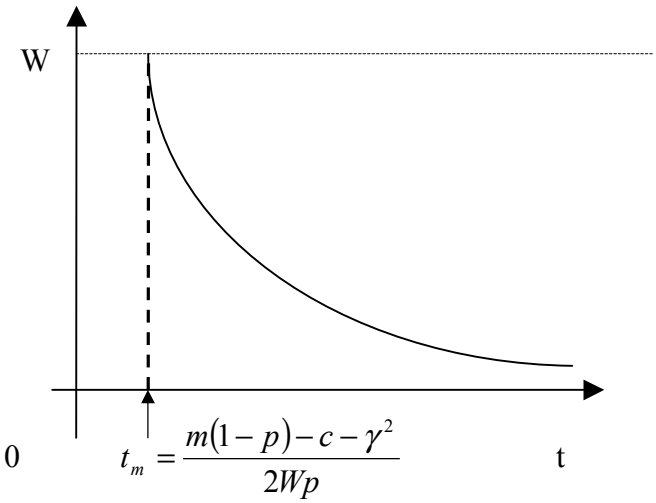



Figure 3

What we said about the case where $p = p_m$ also applies here. If, in fact, $t$ tends to zero, we see that $Y^*$ tends to $+\infty$. But this is not possible, because the maximum level of illegal funds potentially launderable available to the Authority is $W$. Therefore we must also find the minimum value of $t$ ($t_m$) at which $Y^* = W$;

$$Y^* = \frac{m(1-p)-c-\gamma^2}{2pt} = W$$

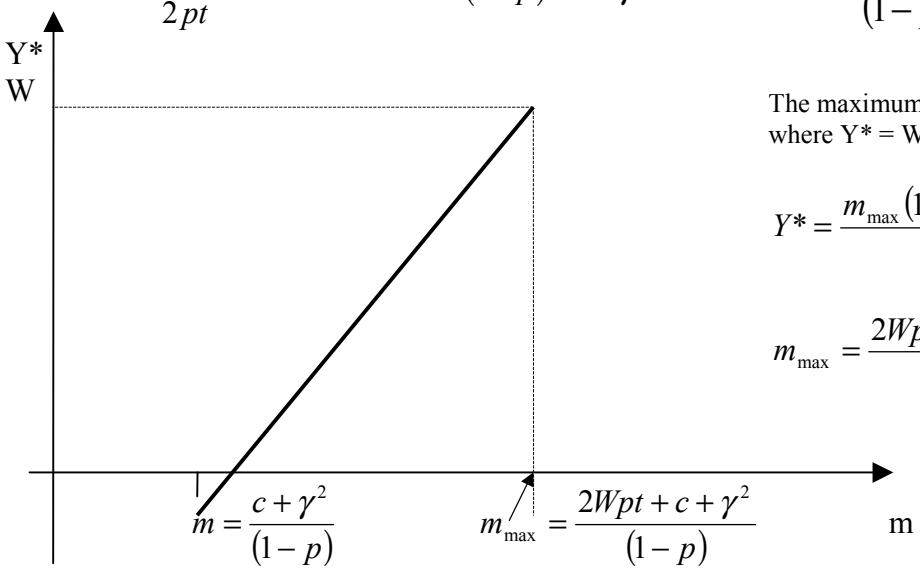
$$\frac{m(1-p)-c-\gamma^2}{2pt_m} = W \quad \Rightarrow m(1-p)-c-\gamma^2 = 2Wpt_m \qquad \Rightarrow t_m = \frac{m(1-p)-c-\gamma^2}{2Wp}$$

Lastly, the laxity of the LFR country will depend on the profitability of offering money-laundering services (Figure 4).

$Y^* = \frac{m(1-p)-c-\gamma^2}{2pt}$ It is a function of the type Y = a x + b where $a = \frac{1-p}{2pt}$ and $b = \frac{-c-\gamma^2}{2pt}$

$$\frac{\partial Y^*}{\partial m} = \frac{(1-p)}{2pt} > 0$$

$$Y^* = \frac{m(1-p)-c-\gamma^2}{2pt} = 0 \qquad \Rightarrow m(1-p)-c-\gamma^2 = 0 \qquad \Rightarrow m = \frac{c+\gamma^2}{(1-p)}$$




The maximum value $m_{max}$ can assume is where Y* = W.

$$Y^* = \frac{m_{max}(1-p)-c-\gamma^2}{2pt} = W$$

$$m_{max} = \frac{2Wpt+c+\gamma^2}{(1-p)}$$

Figure 4

The money-laundering will therefore be non-zero if the profitability lies in the range $]m_m, m_{max}]$.

We can then analyze the relationship between the reputation cost of money-laundering operations and the amount of money to be laundered (Figure 5). As we might expect, the relationship is inverse and equal to:

$$Y^* = \frac{m(1-p)-c-\gamma^2}{2pt}$$ Y*(c) is a straight line of the type Y = -ax+b

If the reputation cost is extremely high, then *Y* = 0.* Let us see for what value of *c*

$$Y^* = \frac{m(1-p)-c_{max}-\gamma^2}{2pt} = 0 \qquad \Rightarrow \frac{m(1-p)-c_{max}-\gamma^2}{2pt} = 0 \qquad \Rightarrow m(1-p)-c_{max}-\gamma^2 = 0$$

$$\Rightarrow c_{max} = m(1-p)-\gamma^2$$

$$\frac{\partial Y^*}{\partial c} = \frac{-1}{2pt} < 0$$

$$Y^* = \frac{m(1-p)-c-\gamma^2}{2pt} = W$$

$$\frac{m(1-p)-c_m-\gamma^2}{2pt}=W \qquad \Rightarrow m(1-p)-c_m-\gamma^2=2Wpt \qquad \Rightarrow c_m=m(1-p)-\gamma^2-2Wpt$$

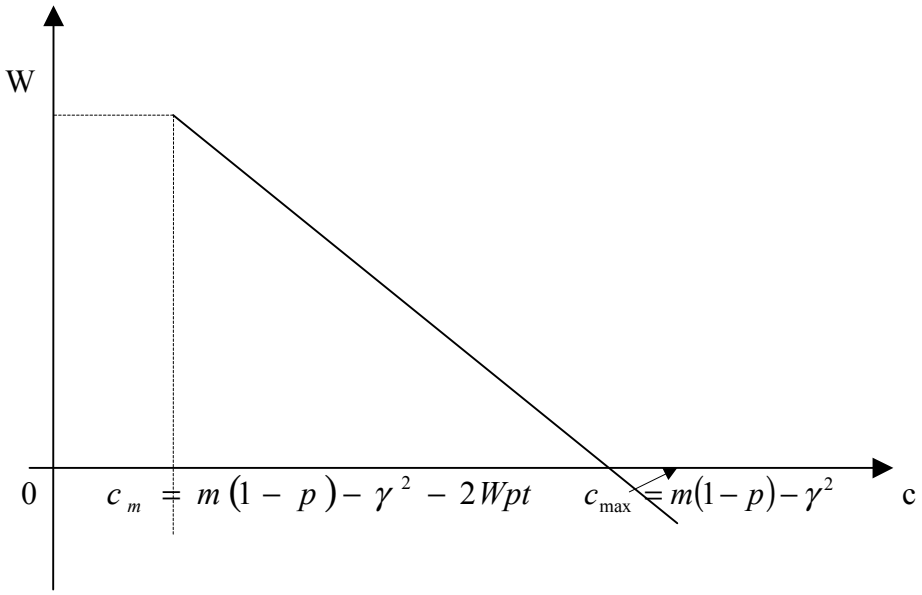



Figure 5

Lastly, the money-laundering activity of the LFR country will also depend on the expected crime costs, summarized by the parameter ⇳:

$$Y^*=\frac{m(1-p)-c-\gamma^2}{2pt} \qquad Y^*=\frac{m(1-p)-c-\gamma^2}{2pt}=0 \Rightarrow \gamma_{\max}=\sqrt{[m(1-p)-c]}$$

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

$$\frac{\partial^2 Y^*}{\partial \gamma}=\frac{-1}{pt}<0 \qquad \text{if } \gamma=0 \Rightarrow Y^*=\frac{m(1-p)-c}{2pt}$$

As the criminal costs for its citizens increase, the propensity of the FLR country to offer money-laundering services decreases. As usual, we can also determine the maximum and minimum values of the parameter⇳, to which the minimum and maximum of the optimal laundering activity instituted by the Authority correspond:

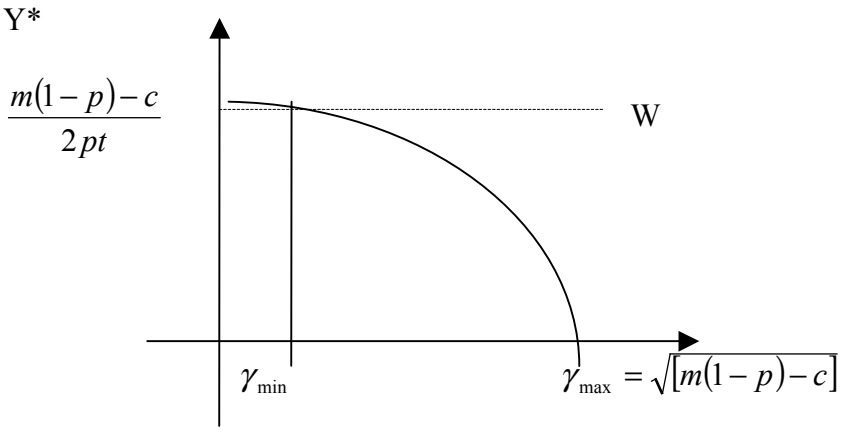



Figure 6

$$Y^* = \frac{m(1-p)-c-\gamma^2}{2pt} = W \Rightarrow m(1-p)-c-\gamma^2 = 2Wpt \Rightarrow \gamma^2 = m(1-p)-c-2Wpt$$

$$\Rightarrow \gamma_{\min} = \sqrt{[m(1-p)-c-2Wpt]}$$

## 7. INSIDE THE BLACK (LIST) BOX: ARE THE NON-COOPERATIVE COUNTRIES AND THE LAX FINANCIAL COUNTRIES THE SAME THING?

In the previous sections we theoretically analyzed the following hypothesis, also using a simple analytical model: a given country may find it advantageous to design its regulations, particularly the financial ones, to attract capital of illegal origin, essentially offering money-laundering services. We have designated these states as "LFR countries".
A country finds it advantageous to become an LFR country because, in defining its objective function, the economic benefits expected from offering money-laundering services are greater than the relative expected costs, associated with internal risk of the development of organized crime, the national risk of loss of reputation, and the possibility of a sanction by the international community.
Therefore, the greater the sensitivity of a country to the benefits of money laundering, and the lower its sensitivity to the cost of money laundering, the greater is the probability that it will become an LFR country.
The utility function assumed here must therefore meet these two fundamental requirements: insensitivity to the production of pollution and a strong sensitivity to the benefit of money laundering services supply.
But what are the economic and institutional characteristics that help define an LFR country? Based on our earlier reflections, we can apparently state that:

1. An LFR country will be one that, in terms of economic characteristics, has relatively scant physical resources to spend in international trade, and this is an initial channel of *national benefit* (*expected national laundering gain*) expected from money laundering;
2. At the same time, an LFR country has the potential for developing financial services, also useful for money-laundering purposes, and this is a second channel of *national benefit* expected from money laundering
3. How appealing the offering of money-laundering services by an LFR country is depends, all other things being equal, on its institutional and juridical characteristics, which make it more attractive to foreign capital of illegal origin (*law attractiveness*)
4. An LFR country also has geographical and social characteristics that shield it to some extent from the risks of crime, thus reducing the *expected cost* of money laundering (*expected national laundering costs*).

But, in reality, what category of countries are closest to the LFR country model? The answer is immediate, thinking of the activities of the FATF:
Formed in 1990 [(1989??], the Financial Action Task Force (TATF) is an intergovernmental body whose objective is to develop and promote policies to combat money laundering, a dangerous process aimed at concealing the illegal income generated by criminal activities.
The FATF currently has 29 member countries[33] and two international organizations[34]. Its membership therefore includes the principal financial centers of Europe, North and South America and Asia.
It is a multidisciplinary body, a fundamental condition for effectively combating money laundering, and possesses the knowledge of experts in legal, financial and economic questions.
The need to cover all the aspects of the war against money-laundering is reflected in the Forty Recommendations of the TATF, an instrument which the Task Force decided to adopt and which all countries are asked to follow.

[33] Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Iceland, Italy, Japan, Luxembourg, Mexico, Norway, New Zealand, Netherlands, Portugal, United Kingdom, Singapore, Spain, United States, Sweden, Switzerland and Turkey.
[34] The two international organizations are the European Commission and the Gulf Cooperation Council.

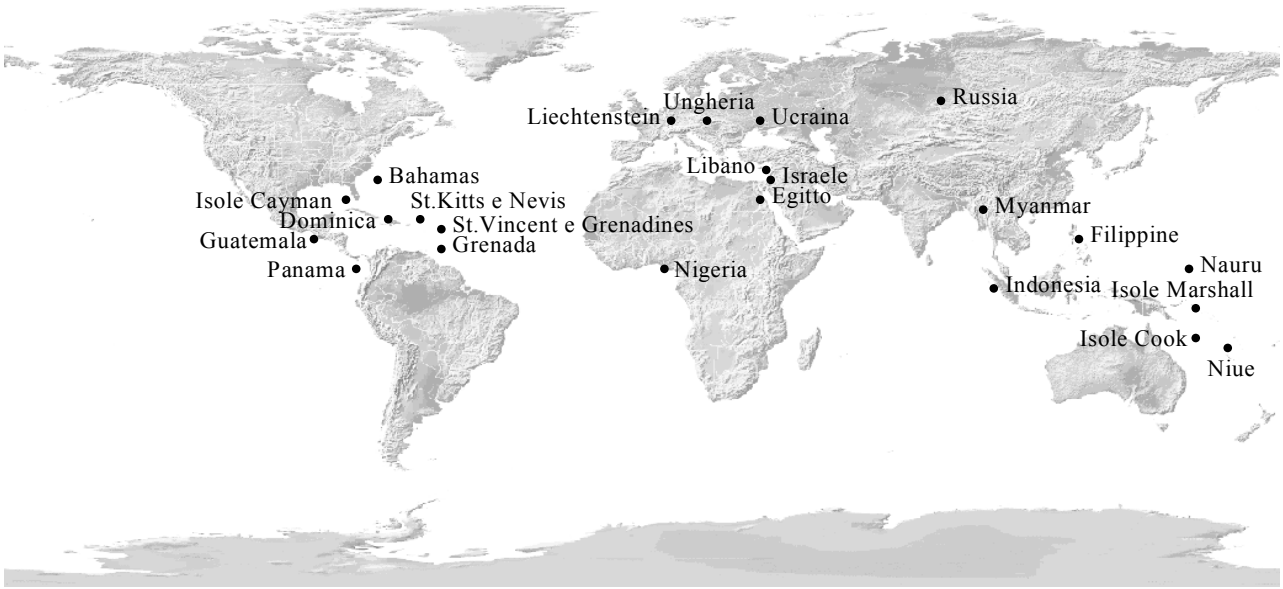
These Recommendations were drafted for the first time in 1990, and revised in 1996 to incorporate the experience gained in those six years and to reflect the evolution in money laundering. They form the working base for the Task Force and an essential framework of effectiveness in combating money laundering. In particular, since 22 June 2000, the TATF has been publishing a periodic report on non-cooperative countries and territories (NCCTs) in an international effort to combat money laundering: the black-list. The report lays down 25 criteria for each country that, if violated, identify the national rules that in each country are detrimental to international cooperation in the fight against money laundering. These criteria are consistent with the Forty Recommendations. Since June 2000 four black-lists have been published (22 June 2000, 22 June 2001, 7 September 2001, 1 February 2002) indicating the jurisdictions that fail to conform to the criteria: overall, 23 countries have been identified as NCCTs at least once (Table 1 and Map 1).

**TABLE 1**

| *N° presenze in black-list* | *Paese* | *22 giugno 2000* | *22 giugno 2001* | *7 settembre 2001* | *1 febbraio 2002* |
|---|---|---|---|---|---|
| *4* | **Dominica** | X | X | X | X |
| | **Filippine** | X | X | X | X |
| | **Isole Cook** | X | X | X | X |
| | **Isole Marshall** | X | X | X | X |
| | **ISRAELE** | X | X | X | X |
| | **Libano** | X | X | X | X |
| | **Nauru** | X | X | X | X |
| | **Niue** | X | X | X | X |
| | **Russia** | X | X | X | X |
| | **St.Kitts e Nevis** | X | X | X | X |
| | **St.Vincent e Grenadines** | X | X | X | X |
| *3* | **Egitto** | | X | X | X |
| | **Guatemala** | | X | X | X |
| | **Indonesia** | | X | X | X |
| | **Myanmar** | | X | X | X |
| | **Nigeria** | | X | X | X |
| | **Ungheria** | | X | X | X |
| *2* | **Grenada** | | | X | X |
| | **Ucraina** | | | X | X |
| *1* | **Bahamas** | X | | | |
| | **Isole Cayman** | X | | | |
| | **Liechtenstein** | X | | | |

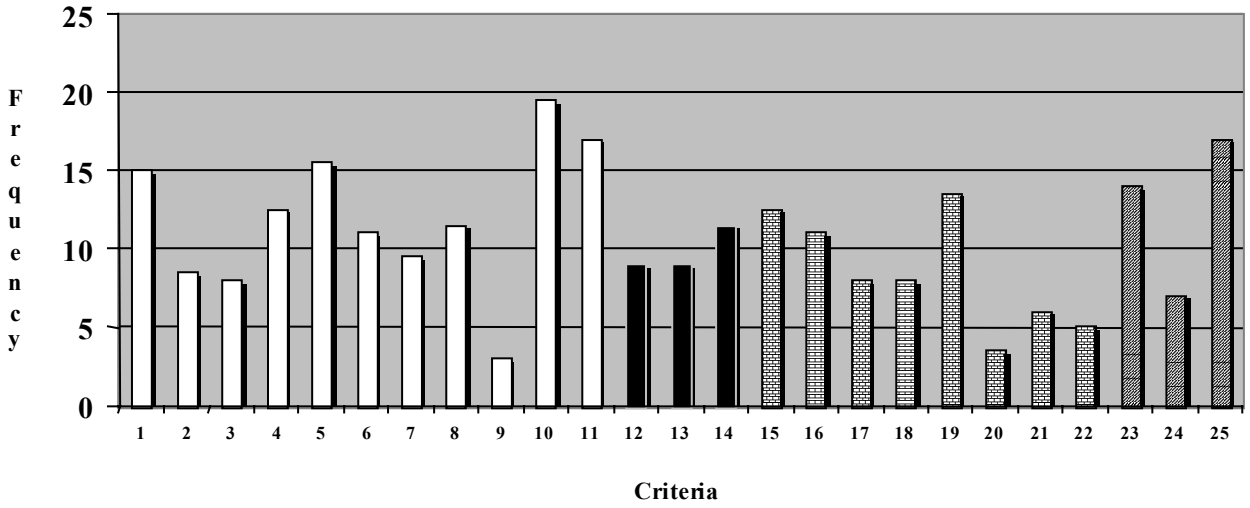
| | | | | | |
|---|---|---|---|---|---|
| | **Panama** | **X** | | | |

**MAP 1**




Analyzing the nature of the violations, country by country (Table 2), we discover an interesting fact: over 50% of the violations concern deficiencies in financial regulation: no or inadequate regulations and supervision of financial institutions, inadequate rules for the licensing and creation of financial institutions, inadequate customer identification requirements, excessive secrecy provisions regarding financial institutions, and lack of efficient suspicious transactions reporting system.

**TABLE 2**




The principal violations concern the criteria that require that cooperative countries have an efficient mandatory system for reporting suspicious or unusual transactions to a competent authority, provided that such a system aims to detect and prosecute money laundering (criterion 10), the presence internal regulations of monitoring and criminal or administrative sanctions in respect to the obligation to report suspicious or unusual transactions (criterion 11), and the presence of a centralized financial intelligence unit for the collection, analysis and dissemination of information on suspicious transactions to competent authorities (criterion 25).

The NCCTs therefore tend to violate primarily the criteria related to financial regulation. It is therefore natural to think that the TATF list of the NCCTs is in reality a list of countries that come closest to our theoretical definition of LFR countries. Furthermore, each NCCT tends to differ from the others in the number of times it has appeared on the black-list and the number of criteria it has violated. So it may be useful to construct a laxity index, based on this information, to measure the extent to which a given country is lax in its regulations.

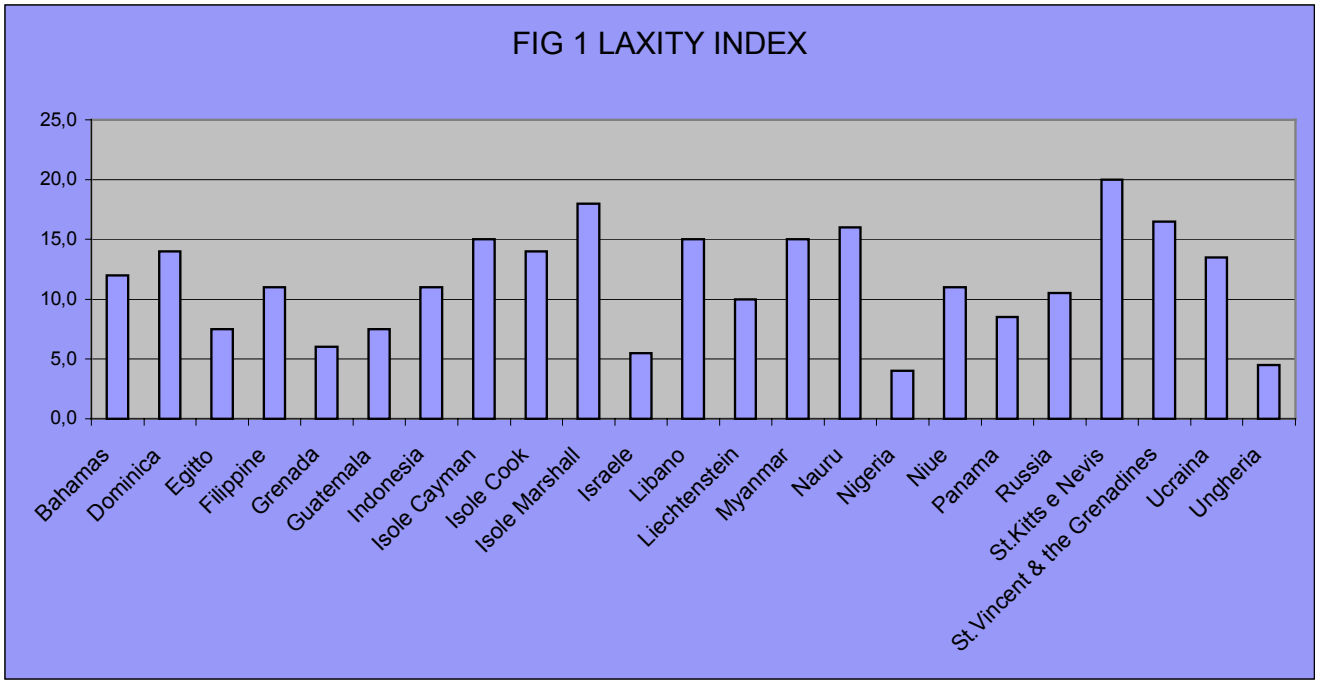
Based on the available information, at least two indexes can be created.

Firstly, each criterion can be violated fully or only partially, so for each country a weight can be assigned to each criterion: 0 for compliance, 0.5 for partial violation, and 1 for total violation. In this way (Table 3) we can construct a simple *Laxity Index* in which the laxer the regulations of an NCCT the higher its score.

**TABLE 3**

| Criterio / Paese | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | TOT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bahamas** | | | | | .5 | | | | | .5 | .5 | 1 | 1 | 1 | 1 | 1 | | 1 | | .5 | 1 | 1 | 1 | | 1 | ***12*** |
| **Dominica** | | | | 1 | 1 | | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | | | | 1 | | 1 | ***14*** |
| **Egitto** | .5 | | | | 1 | .5 | | .5 | | 1 | 1 | | | 1 | | | | | 1 | | | | | | 1 | ***7.5*** |
| **Filippine** | 1 | | | 1 | 1 | 1 | | 1 | | 1 | 1 | | | 1 | | | | | 1 | | | | 1 | | 1 | ***11*** |
| **Grenada** | .5 | .5 | .5 | | | | .5 | 1 | | | | | 1 | | .5 | .5 | | | | | 1 | | | | | ***6*** |
| **Guatemala** | .5 | | | | | 1 | .5 | 1 | | .5 | | | | | 1 | 1 | | | 1 | | | | | | 1 | ***7.5*** |
| **Indonesia** | 1 | | .5 | .5 | .5 | | 1 | 1 | 1 | 1 | 1 | | | .5 | | | | | 1 | | | | 1 | | 1 | ***11*** |
| **Isole Cayman** | 1 | .5 | .5 | | 1 | 1 | .5 | 1 | | 1 | 1 | .5 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 1 | | | ***15*** |
| **Isole Cook** | 1 | | | 1 | 1 | 1 | | | | 1 | 1 | 1 | | 1 | | | | 1 | 1 | | 1 | 1 | 1 | | 1 | ***14*** |
| **Isole Marshall** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | | | | 1 | | 1 | ***18*** |
| **Israele** | | | | | | .5 | | | | 1 | 1 | | | | | | | | 1 | | | 1 | | | 1 | ***5.5*** |
| **Libano** | 1 | 1 | | | | | 1 | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | | 1 | 1 | 1 | | | | 1 | 1 | ***15*** |
| **Liechtenstein** | 1 | | | | .5 | | | | | 1 | | | .5 | | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | | | ***10*** |
| **Myanmar** | 1 | 1 | 1 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | ***15*** |
| **Nauru** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | | | | | 1 | | | | 1 | 1 | 1 | ***16*** |
| **Nigeria** | | | | | 1 | | | | | .5 | | | | | | | 1 | | .5 | | | | | 1 | | ***4*** |
| **Niue** | 1 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | 1 | | 1 | 1 | | | | | | | | | | 1 | ***11*** |
| **Panama** | | | | | | | 1 | 1 | | .5 | | | 1 | | 1 | 1 | 1 | 1 | 1 | | | | | | | ***8.5*** |
| **Russia** | 1 | | | 1 | 1 | .5 | | | | 1 | 1 | | | | | | 1 | | | | 1 | | 1 | 1 | 1 | ***10.5*** |
| **St.Kitts e Nevis** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | | | | 1 | | 1 | ***20*** |
| **St.Vincent/Grenadin** | 1 | 1 | 1 | 1 | 1 | 1 | | | | 1 | 1 | 1 | 1 | | 1 | .5 | | 1 | | | | 1 | 1 | 1 | 1 | ***16.5*** |
| **Ucraina** | .5 | .5 | .5 | 1 | .5 | .5 | .5 | 1 | | 1 | 1 | | .5 | 1 | 1 | 1 | | | | | | | 1 | 1 | 1 | ***13.5*** |
| **Ungheria** | | | | 1 | .5 | | .5 | | | .5 | .5 | .5 | 1 | | | | | | | | | | | | | ***4.5*** |
| ***T O T A L E*** | ***15*** | ***8 .5*** | ***8*** | ***12 .5*** | ***15 .5*** | ***11*** | ***9 .5*** | ***11 .5*** | ***3*** | ***19 .5*** | ***17*** | ***9*** | ***9*** | ***11 .5*** | ***12 .5*** | ***11*** | ***8*** | ***8*** | ***13 .5*** | ***3 .5*** | ***6*** | ***5*** | ***14*** | ***7*** | ***17*** | ***266*** |

Secondly, given the Laxity Index, we must consider that each country can be more or less permanently on the black list. The presence of each of the 23 countries can range from a maximum of four to a minimum of one. So then, by weighting the respective Laxity Index for each country, we can obtain a *Weighted Laxity Index*, in which the degree of laxity is found by considering both the number and gravity of the violations of the criteria and the more or less transitory presence of the country on the black list.
Therefore for the list of NCCT countries we can have both the Laxity Index (Figure 1) and the Weighted Laxity Index (Figure 2).



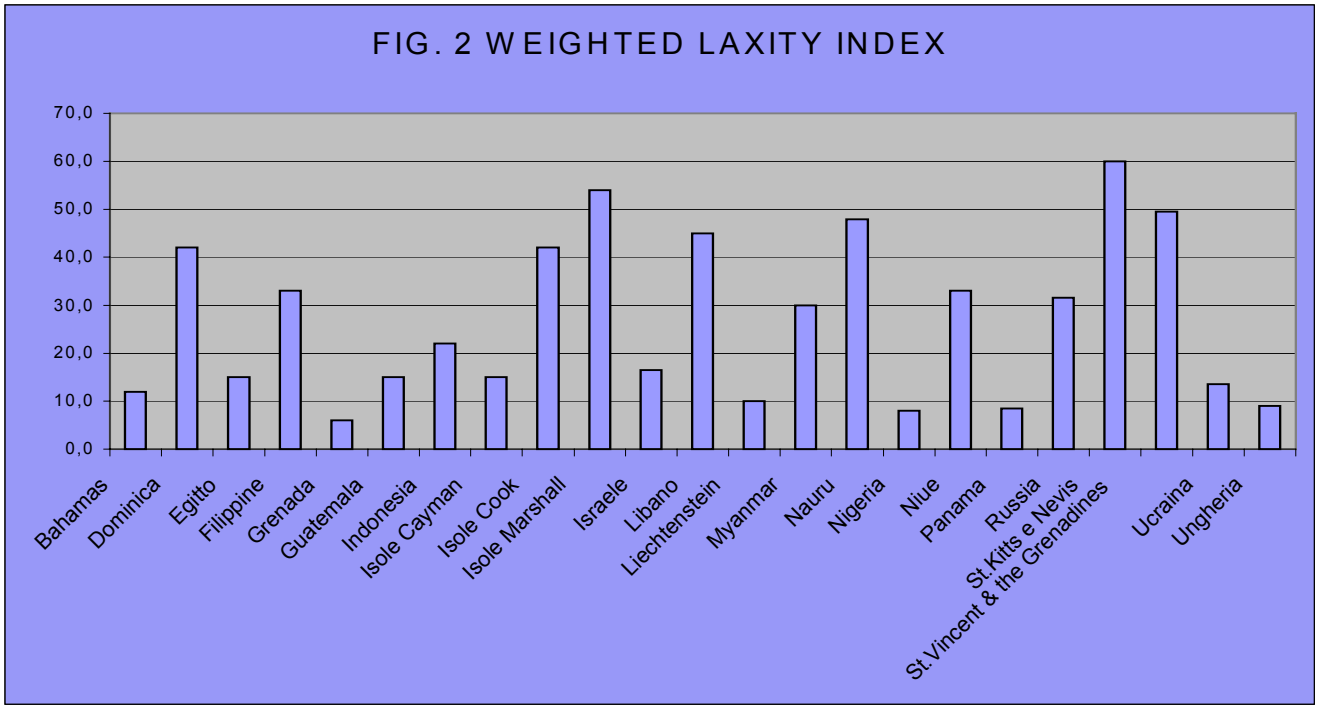
These laxity indicators help us verify the existence of any common characteristics in the group of NCCTs consistent with our theoretical analysis of the characteristics of LFR countries. One of the hurdles in the empirical analysis was the extreme difficulty in acquiring uniform data for all the NCCTs.

Firstly, we have stated that an LFR country will be one that, because of its geographical and economic characteristics, has relatively scant physical resources to spend in international trade, and this is the first channel of *national benefit* (*expected national laundering gain*) expected from money laundering.
Starting from the economic characteristics, and using simple correlation analysis and multiple regression analysis, we note that the NCCTs tend to be laxer:

1) If the country is an island, located in the Caribbean area and in the Pacific basin area, as shown by regression analysis (Table 4bis);

**TABLE 4BIS**

LAXITY INDEX ON 23 OFF-SHORE COUNTRIES: common law dummy and island dummy

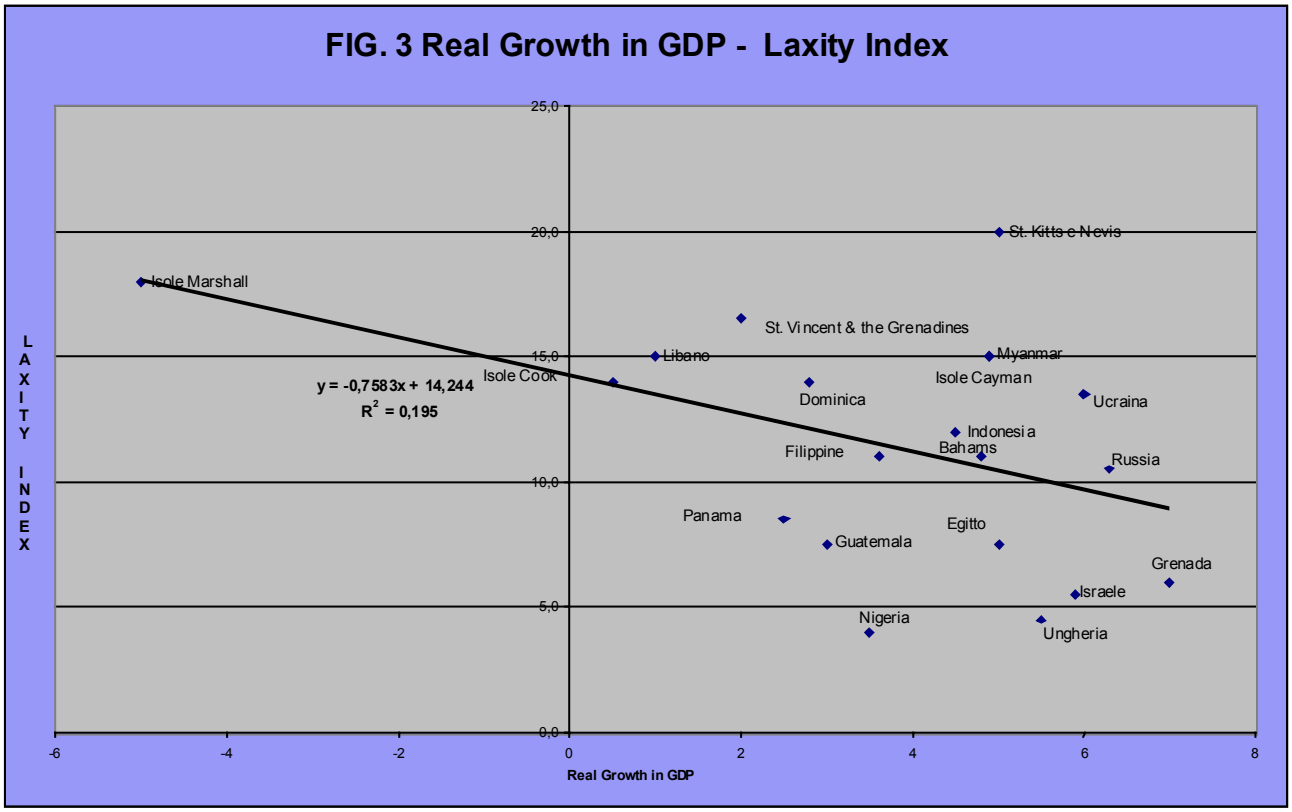


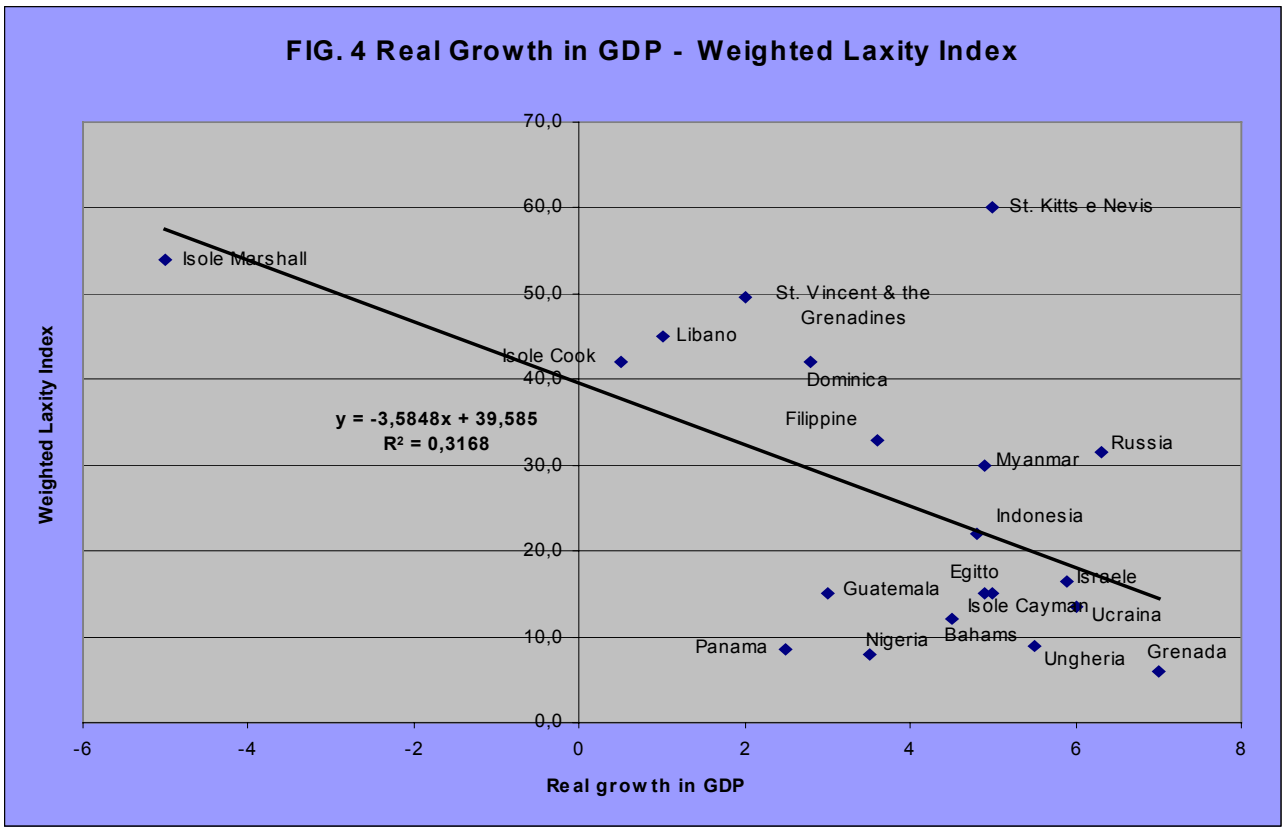

```
Source |       SS       df       MS              Number of obs =      23
-------------+------------------------------       F(  7,    15) =    2.87
       Model |  236.032768     7  33.7189668         Prob > F      =  0.0412
    Residual |  176.402015    15  11.7601343         R-squared     =  0.5723
-------------+------------------------------       Adj R-squared =  0.3727
       Total |  412.434783    22  18.7470356         Root MSE      =  3.4293

------------------------------------------------------------------------------
          y1 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          x1 |  -.1317167   .0950178    -1.39   0.186    -.3342424    .0708091
          x2 |   .0156198   .0428556     0.36   0.721    -.0757247    .1069644
```

| | | | | | | |
|---|---|---|---|---|---|---|
| x3 | -1.528892 | .5390227 | -2.84 | 0.013 | -2.677791 | -.3799919 |
| x4 | .0807644 | .0394119 | 2.05 | 0.058 | -.0032401 | .164769 |
| x5 | .3473982 | .158153 | 2.20 | 0.044 | .010303 | .6844934 |
| dummy4 | 3.438937 | 2.405913 | 1.43 | 0.173 | -1.689146 | 8.56702 |
| dummy2 | 2.155924 | 2.568108 | 0.84 | 0.414 | -3.317868 | 7.629716 |
| _cons | 7.984279 | 2.71761 | 2.94 | 0.010 | 2.191831 | 13.77673 |

y1=Laxity Index; x1=Land Exploitation; x2=Degree of Democracy; x3=Real Growth in GDP; x4=Services Sector; x5=Average Inflation Rate; dummy2=Common Law (1); dummy4=Pacific or Caribbean Island (1)

2) the more they experience economic growth problems, measuring those problems in terms of real growth in GDP (figures 3 and 4) and per-capita GDP (figures 3bis and 4bis), and the level of land exploitation (figures 5 and 6), as shown by regression analysis (Table 4);



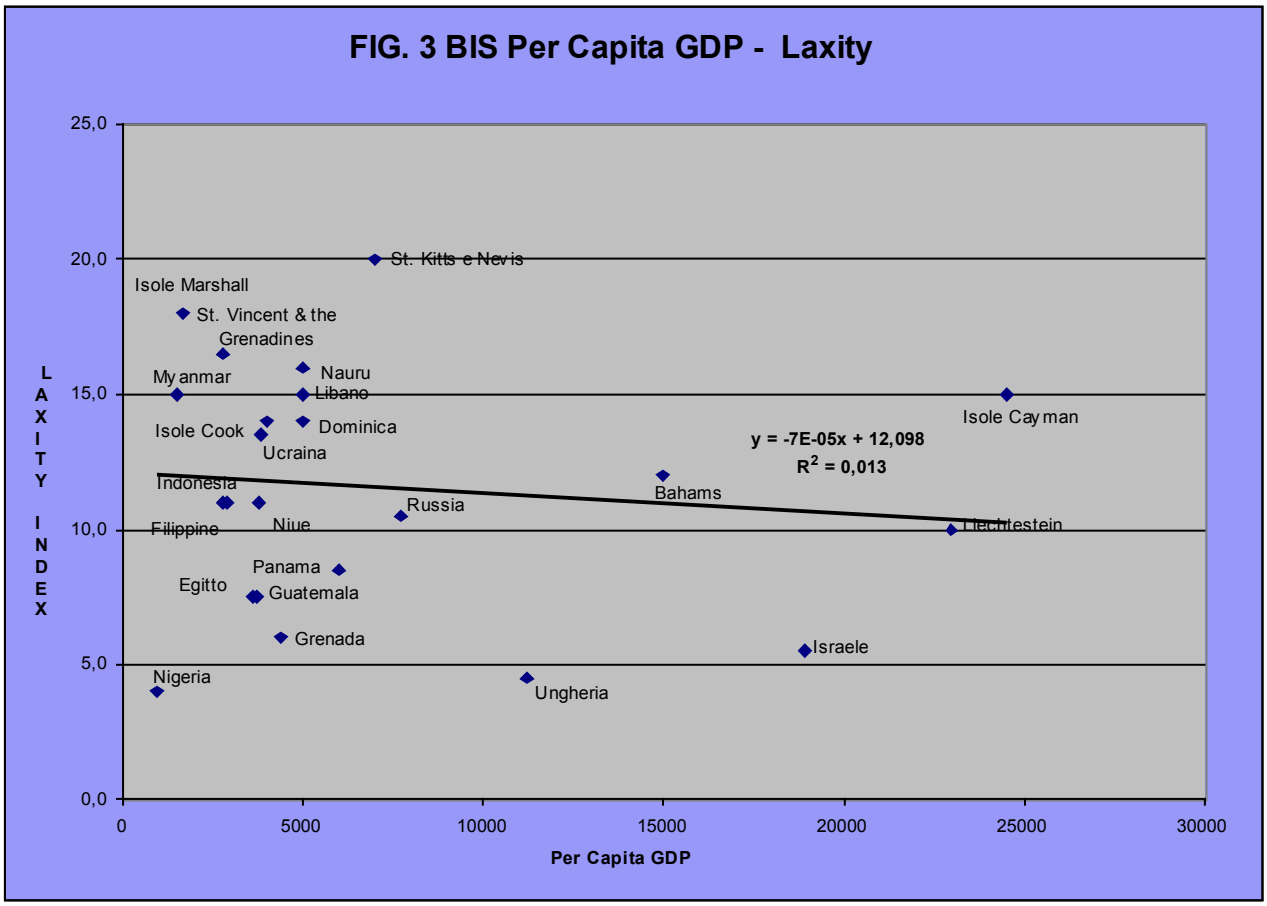


FIG. 3 BIS Per Capita GDP - Laxity
LAXITY INDEX
Per Capita GDP
y = -7E-05x + 12,098
R2 = 0,013
25,0
20,0
15,0
10,0
5,0
0,0
0
5000
10000
15000
20000
25000
30000
St. Kitts e Nevis
Isole Marshall
St. Vincent & the Grenadines
Myanmar
Nauru
Libano
Isole Cook
Dominica
Ucraina
Isole Cayman
Indonesia
Bahams
Russia
Filippine
Niue
Liechtestein
Panama
Egitto
Guatemala
Grenada
Israele
Nigeria
Ungheria

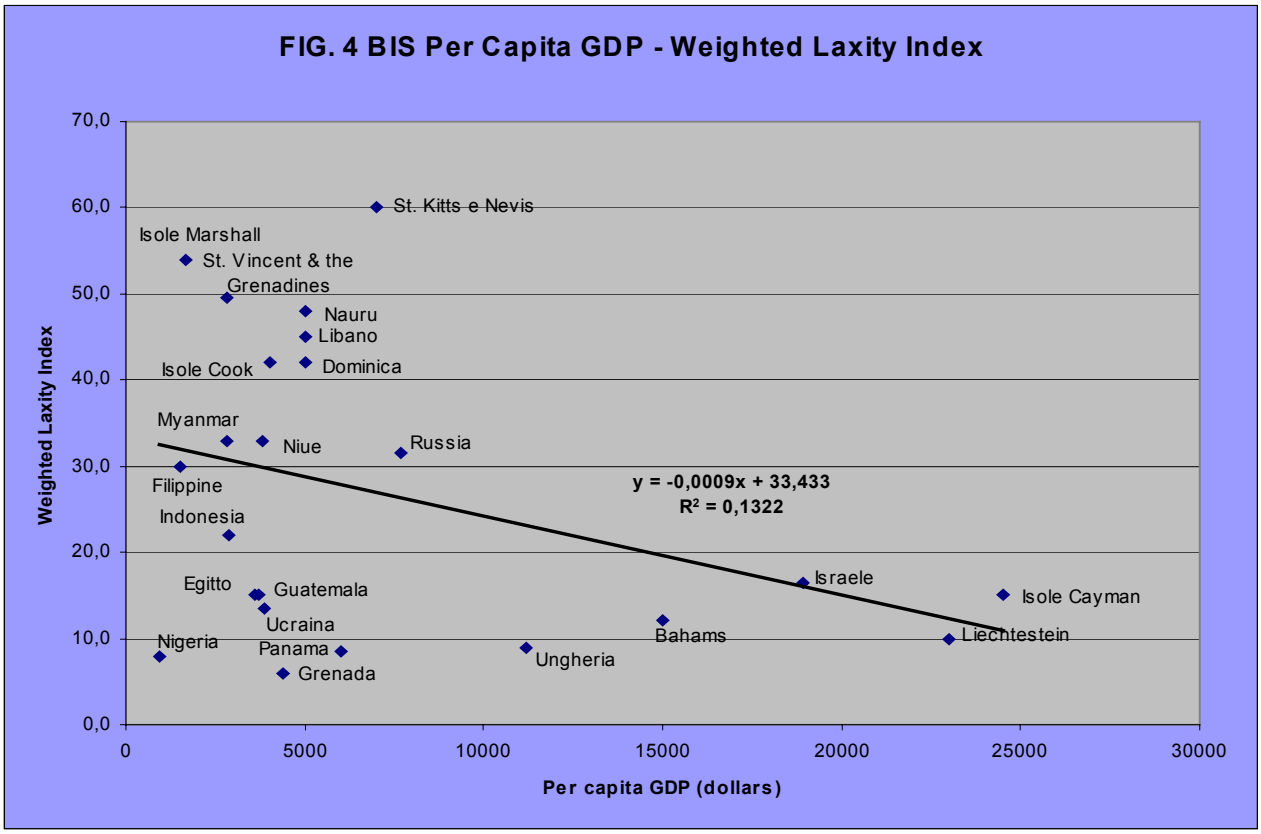


FIG. 4 BIS Per Capita GDP - Weighted Laxity Index
Weighted Laxity Index
Per capita GDP (dollars)
y = -0,0009x + 33,433
R2 = 0,1322
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
0
5000
10000
15000
20000
25000
30000
St. Kitts e Nevis
Isole Marshall
St. Vincent & the Grenadines
Nauru
Libano
Isole Cook
Dominica
Myanmar
Niue
Russia
Filippine
Indonesia
Egitto
Guatemala
Israele
Isole Cayman
Ucraina
Bahams
Liechtestein
Nigeria
Panama
Ungheria
Grenada

## TABLE 4

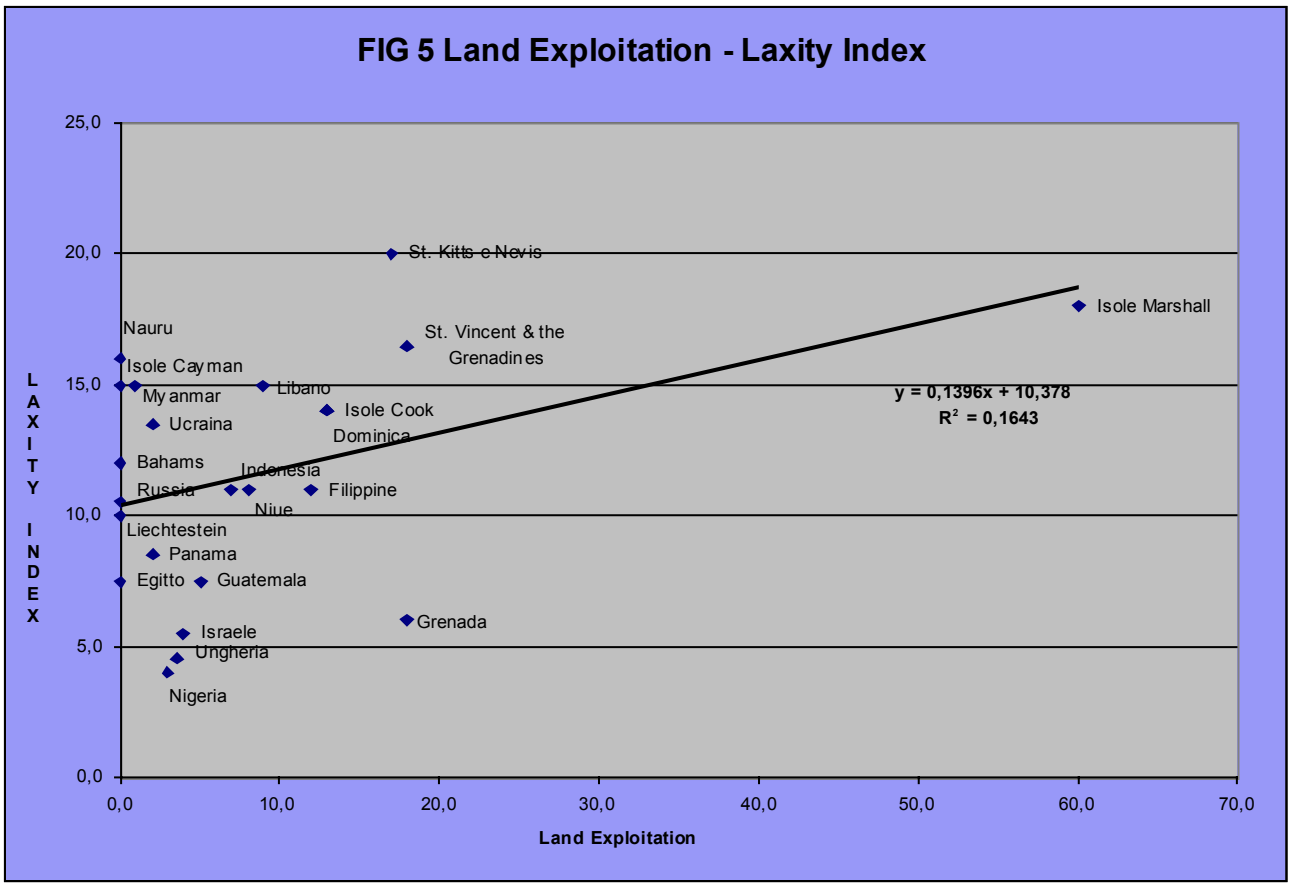
LAXITY INDEX SU 23 PAESI OFF-SHORE with common law dummy

Countries: Bahamas, Domenica, Egitto, Filippine, Grenada, Guatemala, Indonesia, Isole Cayman, Isole Cook, Isole Marshall, Israele, Libano, Liechtestein, Myanmar, Nauru, Nigeria, Niue, Panama, Russia, St. Kitts e Nevis, St. Vincent & the Grenadines, Ucraina, Ungheria

| Source | SS | df | MS | | |
|---|---|---|---|---|---|
| Model | 212.005703 | 6 | 35.3342839 | Number of obs | 23 |
| Residual | 200.429079 | 16 | 12.5268175 | F( 6, 16) | 2.82 |
| Total | 412.434783 | 22 | 18.7470356 | Prob > F | 0.0455 |
| | | | | R-squared | 0.5140 |
| | | | | Adj R-squared | 0.3318 |
| | | | | Root MSE | 3.5393 |

| y1 | Coef. | Std. Err. | t | P>\|t\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| x1 | -.0987171 | .0951274 | -1.04 | 0.315 | -.3003782 | .1029441 |
| x2 | .0162492 | .0442282 | 0.37 | 0.718 | -.0775104 | .1100087 |
| x3 | -1.746403 | .533686 | -3.27 | 0.005 | -2.877767 | -.6150391 |
| x4 | .0976096 | .0388152 | 2.51 | 0.023 | .015325 | .1798942 |
| x5 | .3448446 | .1632165 | 2.11 | 0.051 | -.001159 | .6908481 |
| dummy2 | 4.642606 | 1.949678 | 2.38 | 0.030 | .5094734 | 8.77574 |
| _cons | 7.682807 | 2.796337 | 2.75 | 0.014 | 1.754838 | 13.61078 |

y1=Laxity Index; x1=Land Exploitation; x2=Degree of Democracy; x3=Real growth in GDP; x4=Services Sector; x5=Average Inflation Rate; dummy2=Common Law (1)



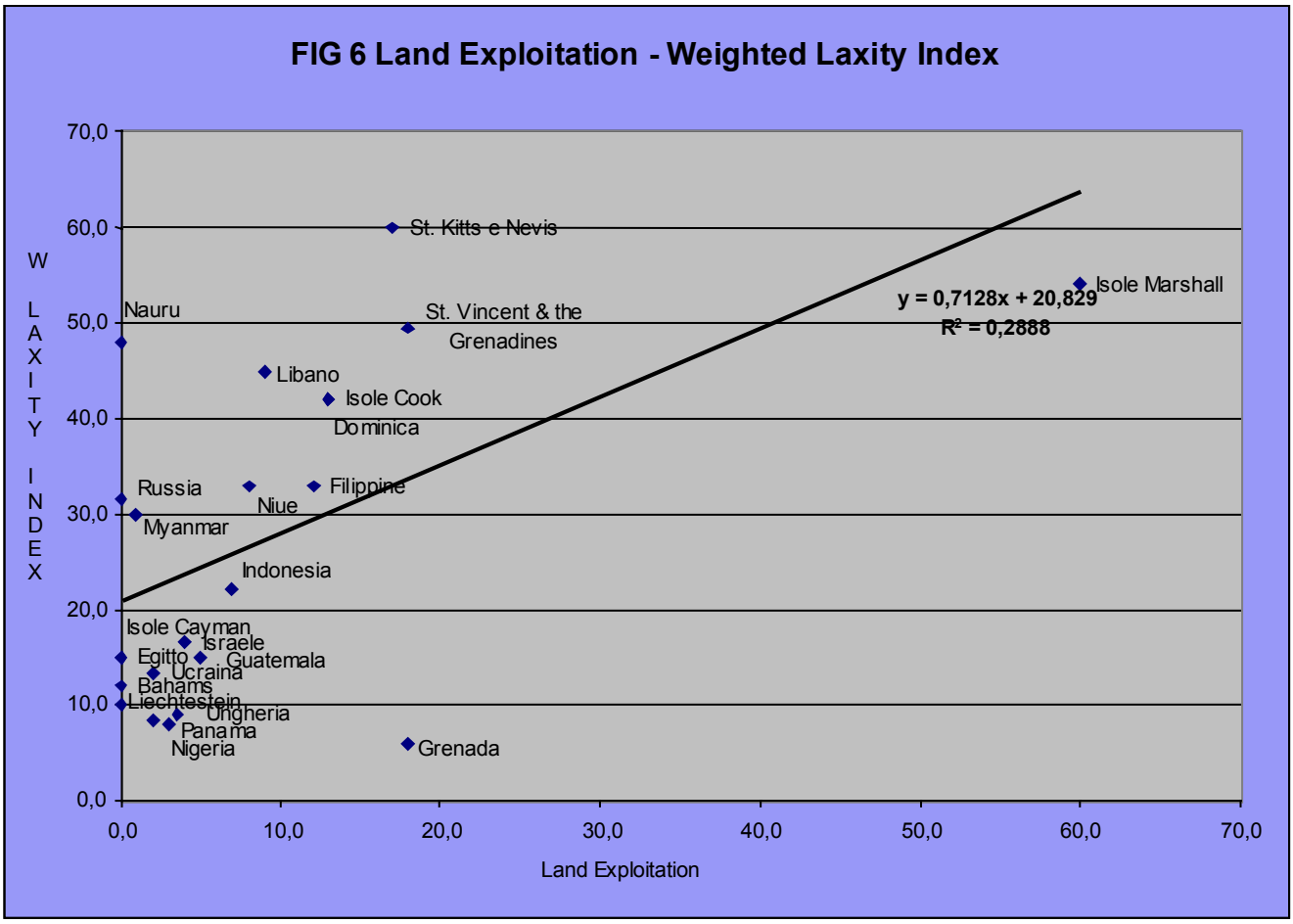
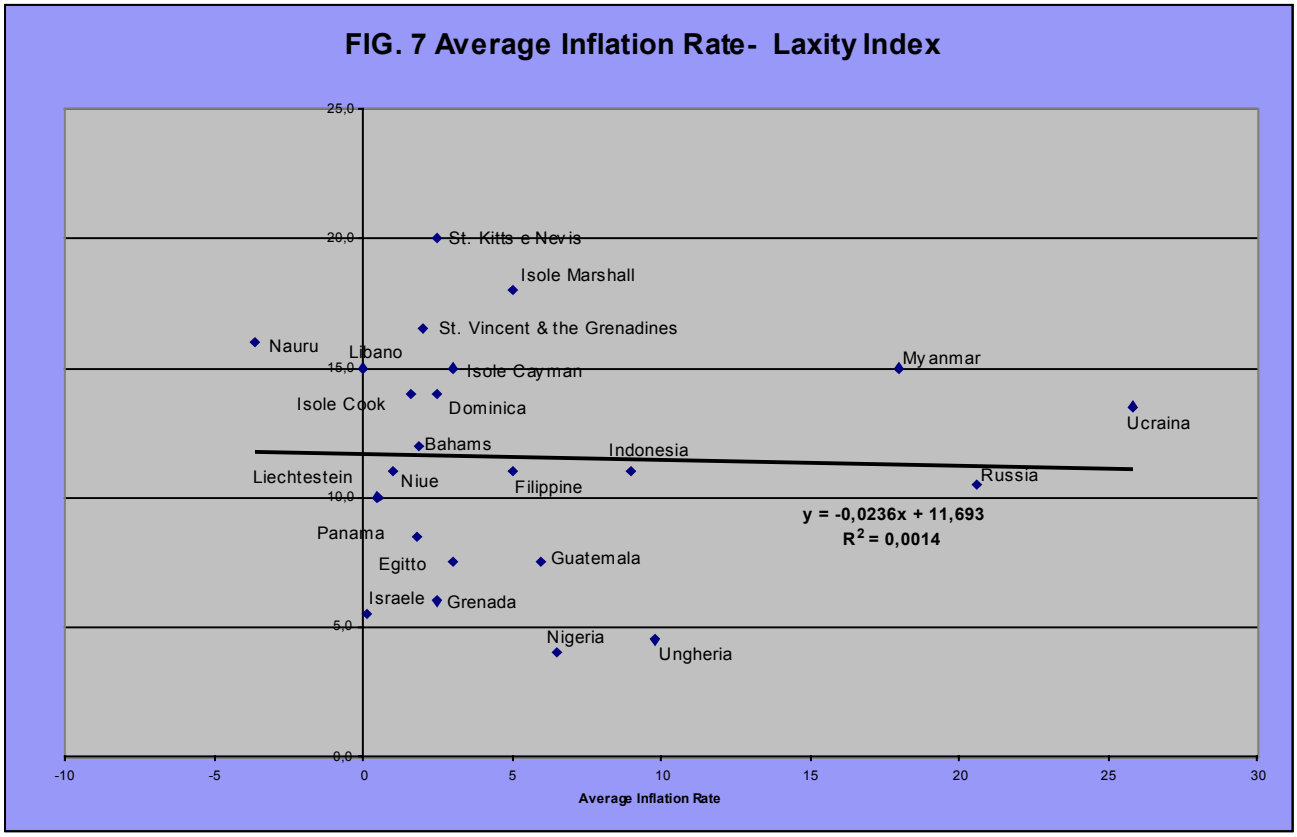
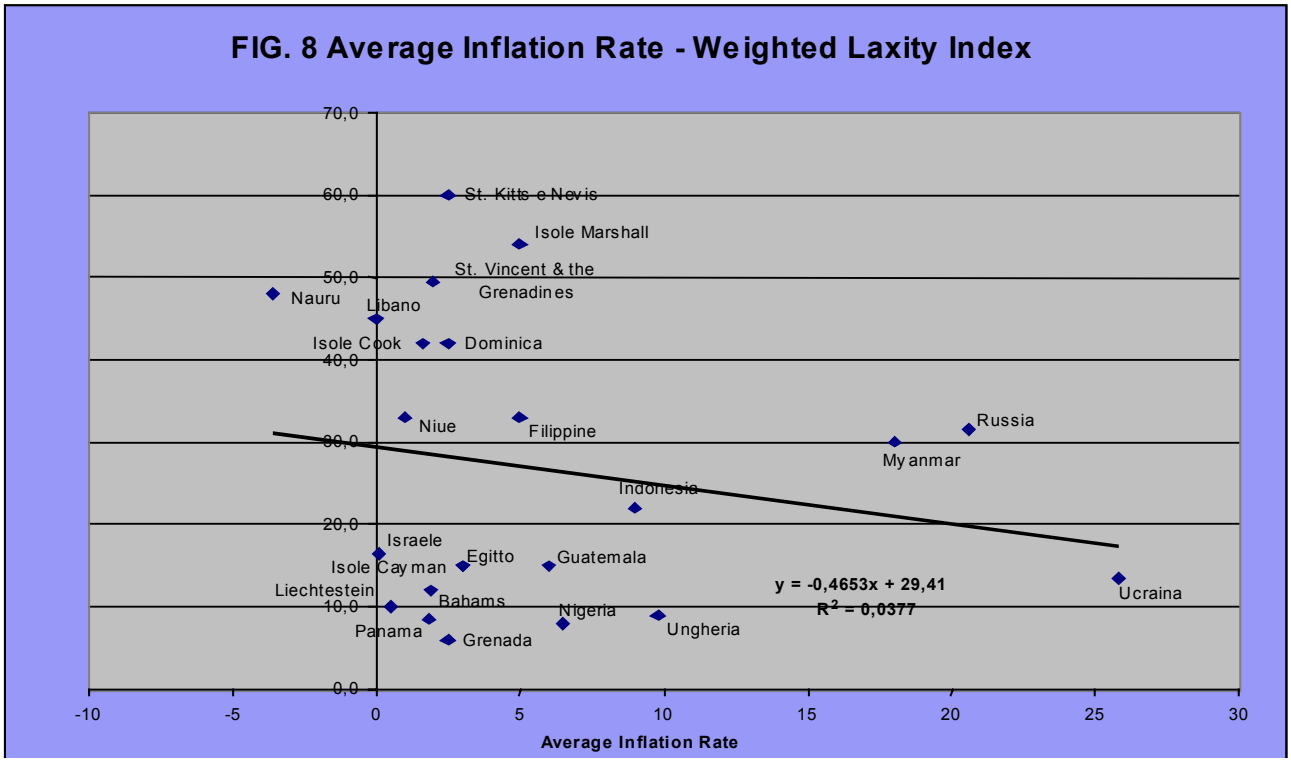


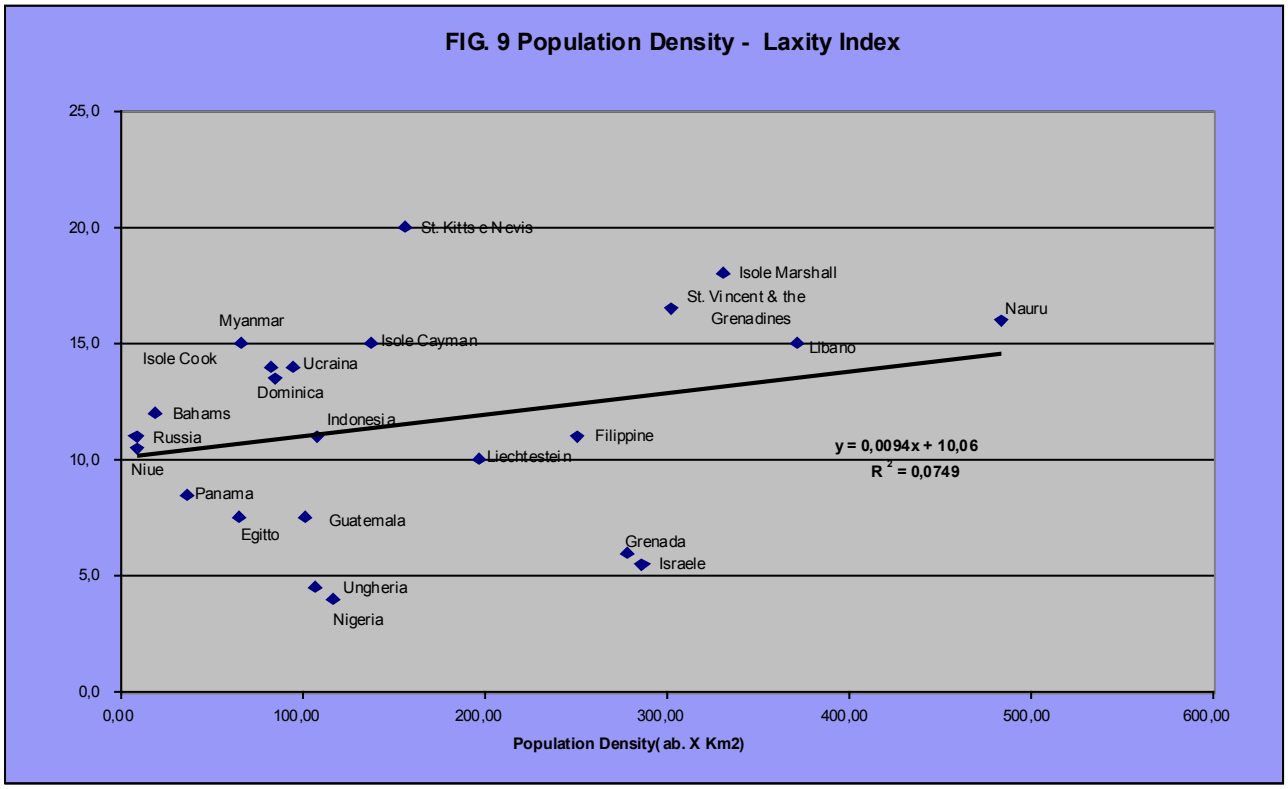
FIG 6 Land Exploitation - Weighted Laxity Index
W LAXITY INDEX
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
0,0
10,0
20,0
30,0
40,0
50,0
60,0
70,0
Land Exploitation
St. Kitts e Nevis
Isole Marshall
y = 0,7128x + 20,829
R² = 0,2888
Nauru
St. Vincent & the Grenadines
Libano
Isole Cook
Dominica
Russia
Filippine
Niue
Myanmar
Indonesia
Isole Cayman
Israele
Egitto
Guatemala
Ucraina
Bahams
Liechtestein
Ungheria
Panama
Nigeria
Grenada

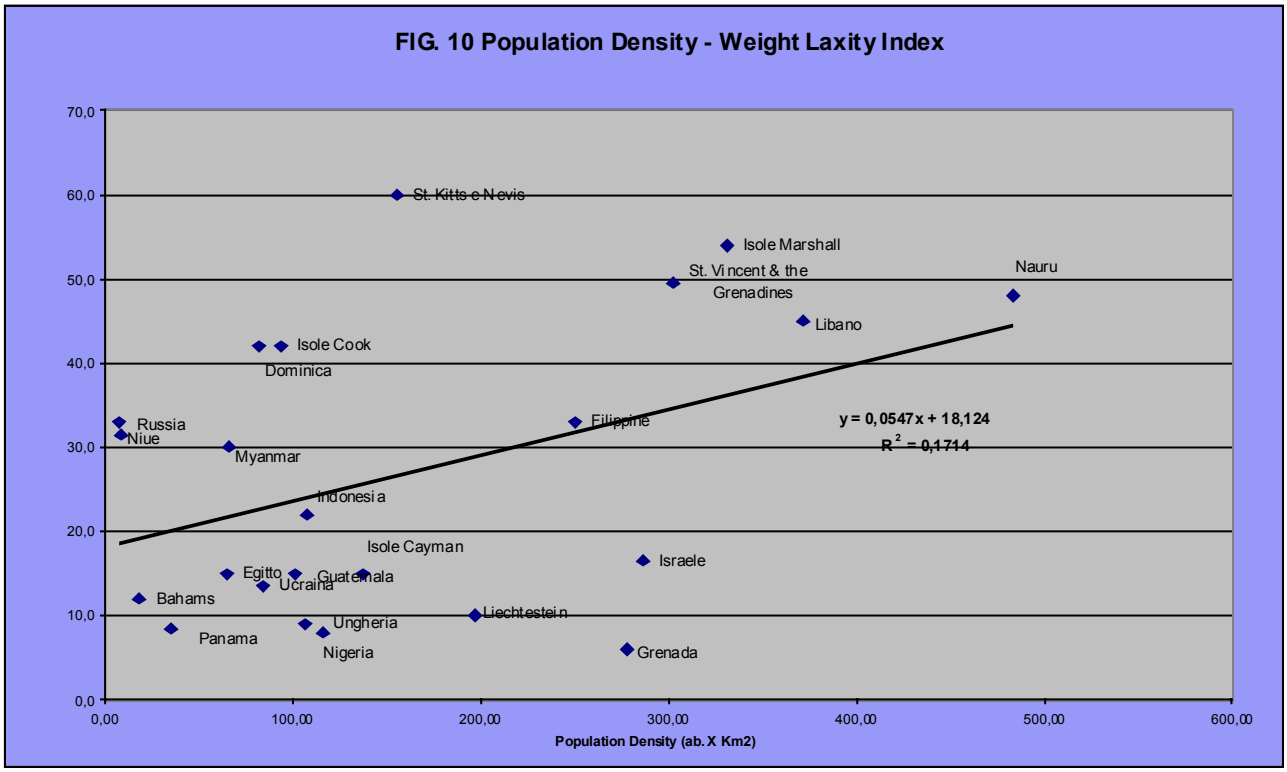
3) the more inflation problems they have, measured in terms of average inflation rate (figures 7 and 8) ;



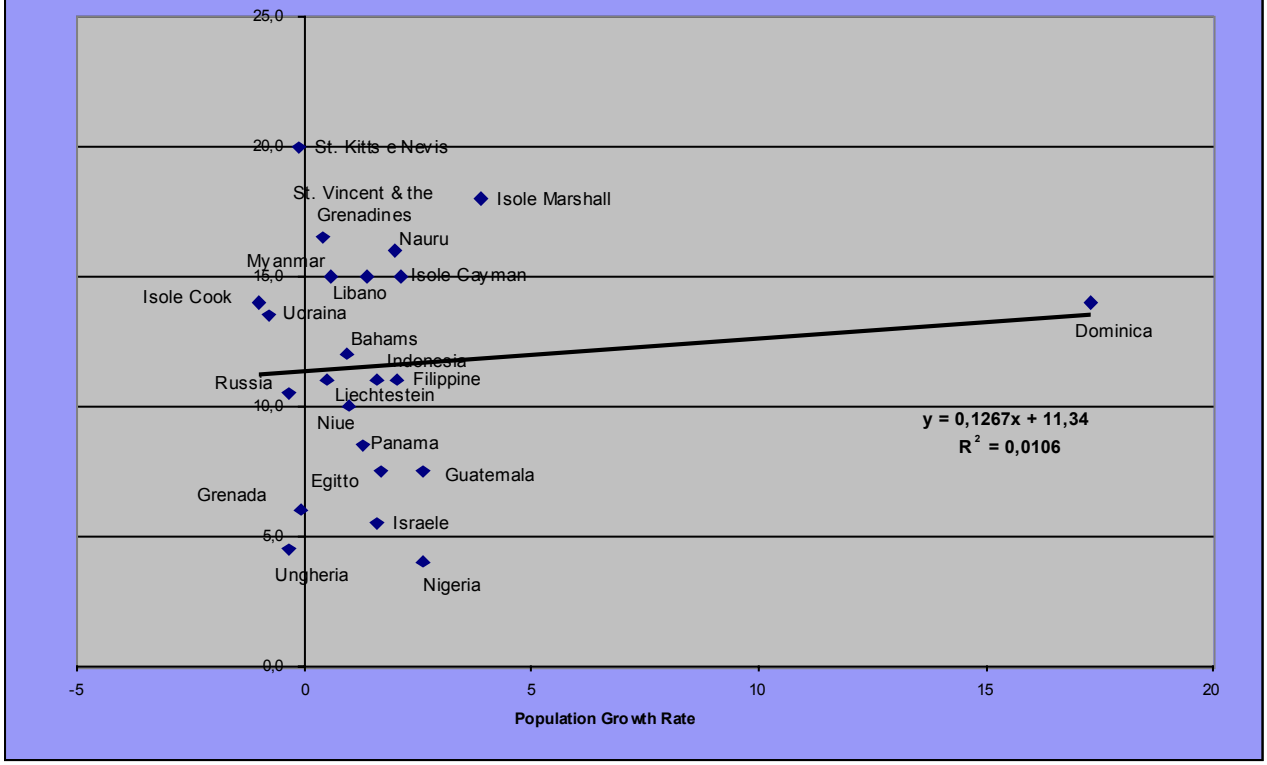



4) the more employment problems they have; based on the fact that there is a direct relationship between laxity and population density (figure 9 and 10), as well as between laxity and population growth rate (figures 9bis and 10bis); on the contrary figure 11 and 12 show an inverse relationship between the net immigration rate and laxity, we note—at least for the Weighted Laxity Index—an inverse relationship between the size of the workforce, as a percentage of total population, and the degree of laxity (figures 13 and 14): so the lower the unemployment rate the greater the laxity;

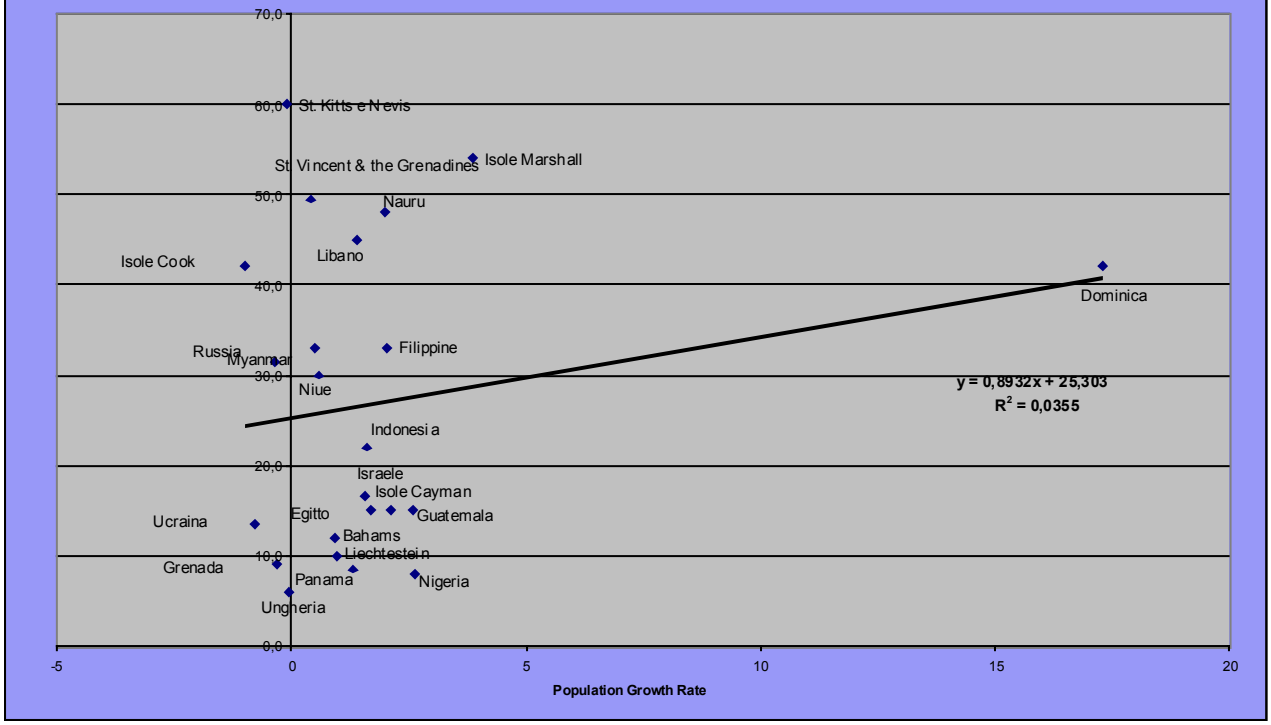


## FIG. 9 BIS Population Growth Rate- Laxity Index




## FIG. 10 BIS Population Growth Rate- Weighted Laxity



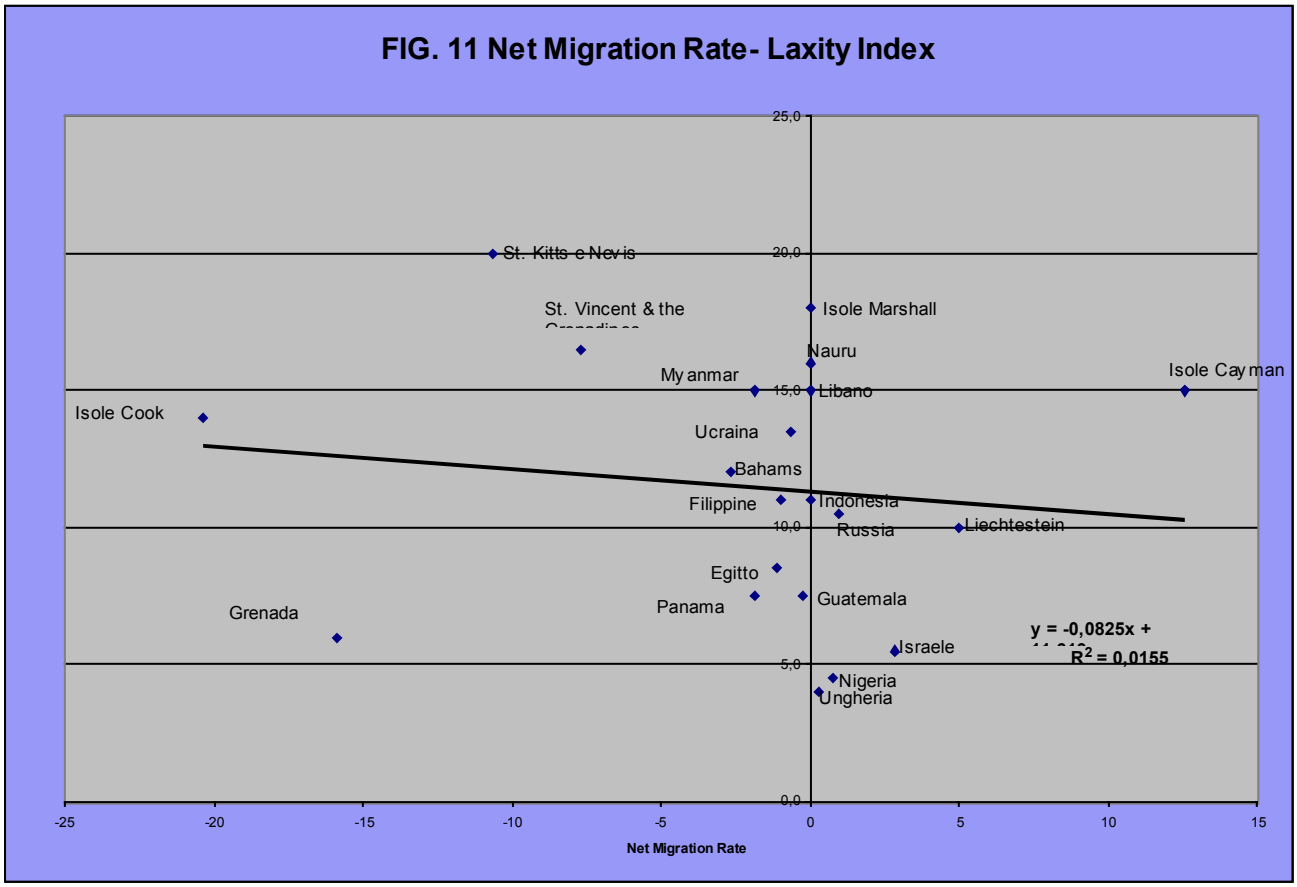


FIG. 11 Net Migration Rate- Laxity Index
25,0
20,0
15,0
10,0
5,0
0,0
-25
-20
-15
-10
-5
0
5
10
15
Net Migration Rate
St. Kitts e Nevis
St. Vincent & the
Isole Marshall
Nauru
Myanmar
Libano
Isole Cayman
Isole Cook
Ucraina
Bahams
Filippine
Indonesia
Russia
Liechtestein
Egitto
Panama
Guatemala
Grenada
Israele
y = -0,0825x +
R2 = 0,0155
Nigeria
Ungheria

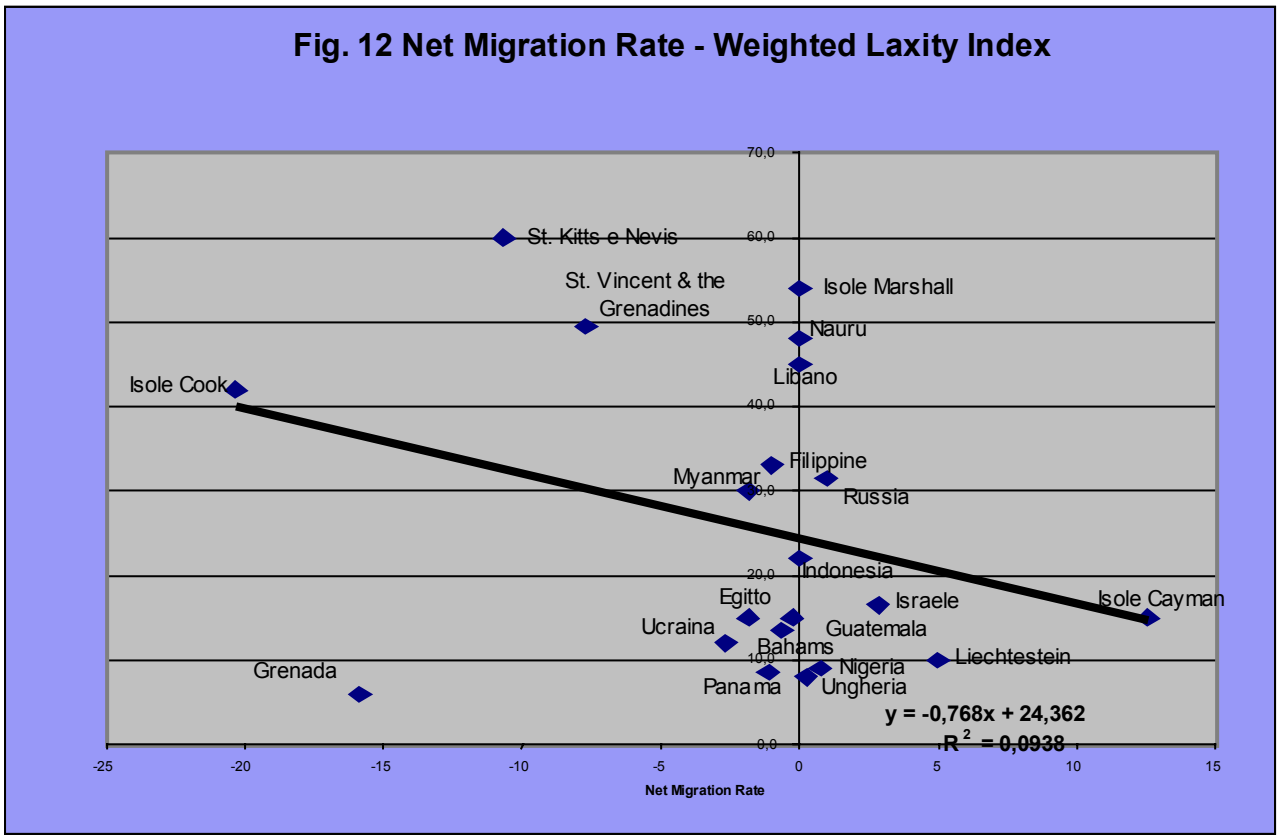


Fig. 12 Net Migration Rate - Weighted Laxity Index
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
-25
-20
-15
-10
-5
0
5
10
15
Net Migration Rate
St. Kitts e Nevis
St. Vincent & the
Grenadines
Isole Marshall
Nauru
Libano
Isole Cook
Filippine
Myanmar
Russia
Indonesia
Egitto
Israele
Isole Cayman
Ucraina
Guatemala
Bahams
Liechtestein
Grenada
Nigeria
Panama
Ungheria
y = -0,768x + 24,362
R2 = 0,0938

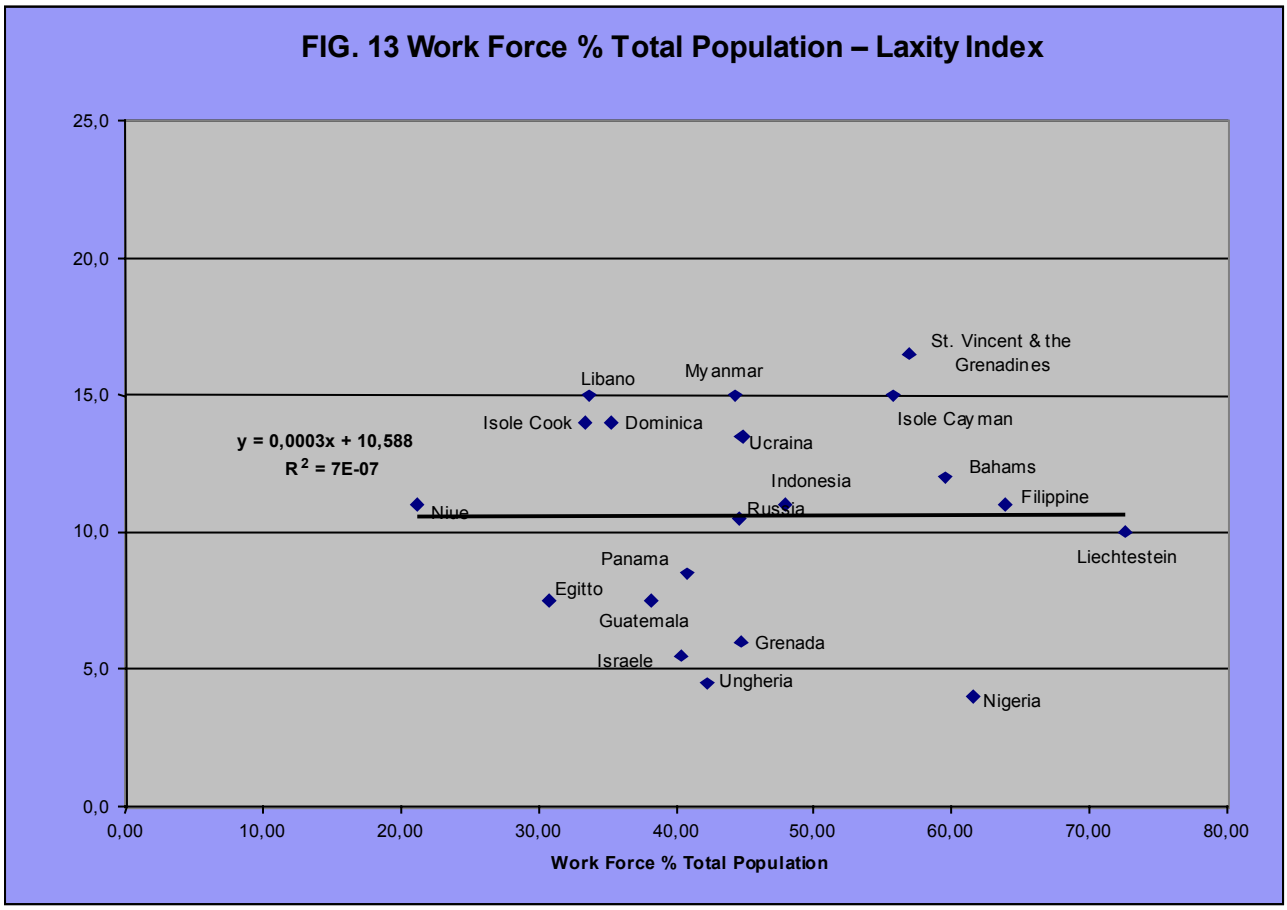


FIG. 13 Work Force % Total Population – Laxity Index
25,0
20,0
15,0
10,0
5,0
0,0
0,00
10,00
20,00
30,00
40,00
50,00
60,00
70,00
80,00
Work Force % Total Population
y = 0,0003x + 10,588
R 2 = 7E-07
St. Vincent & the Grenadines
Libano
Myanmar
Isole Cook
Dominica
Isole Cayman
Ucraina
Bahams
Indonesia
Filippine
Niue
Russia
Liechtestein
Panama
Egitto
Guatemala
Grenada
Israele
Ungheria
Nigeria

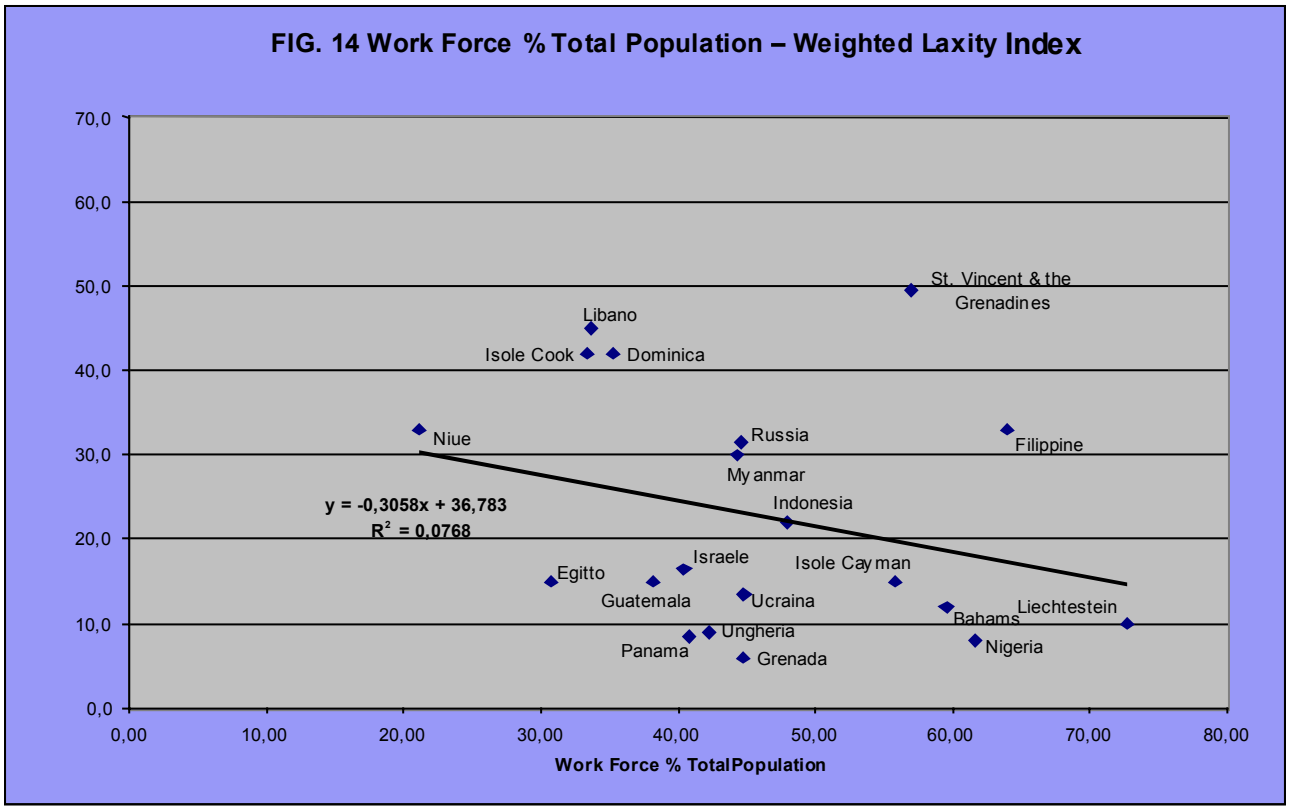
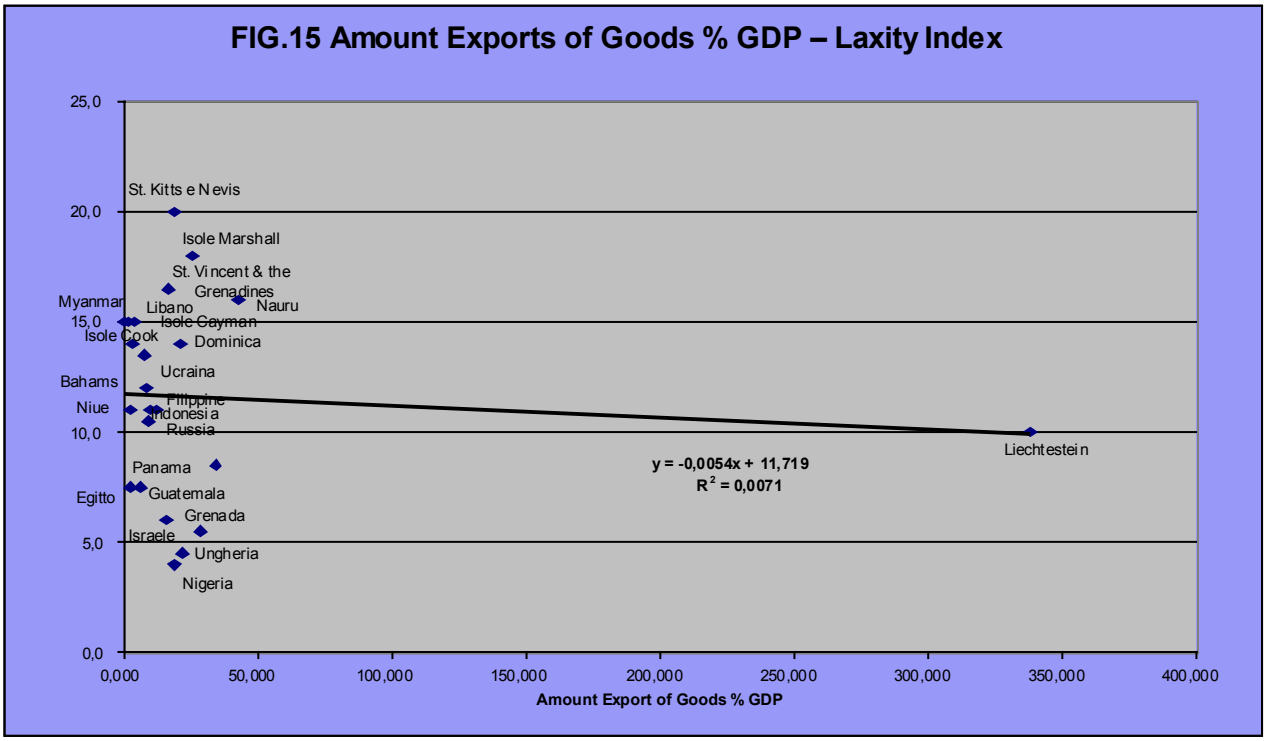
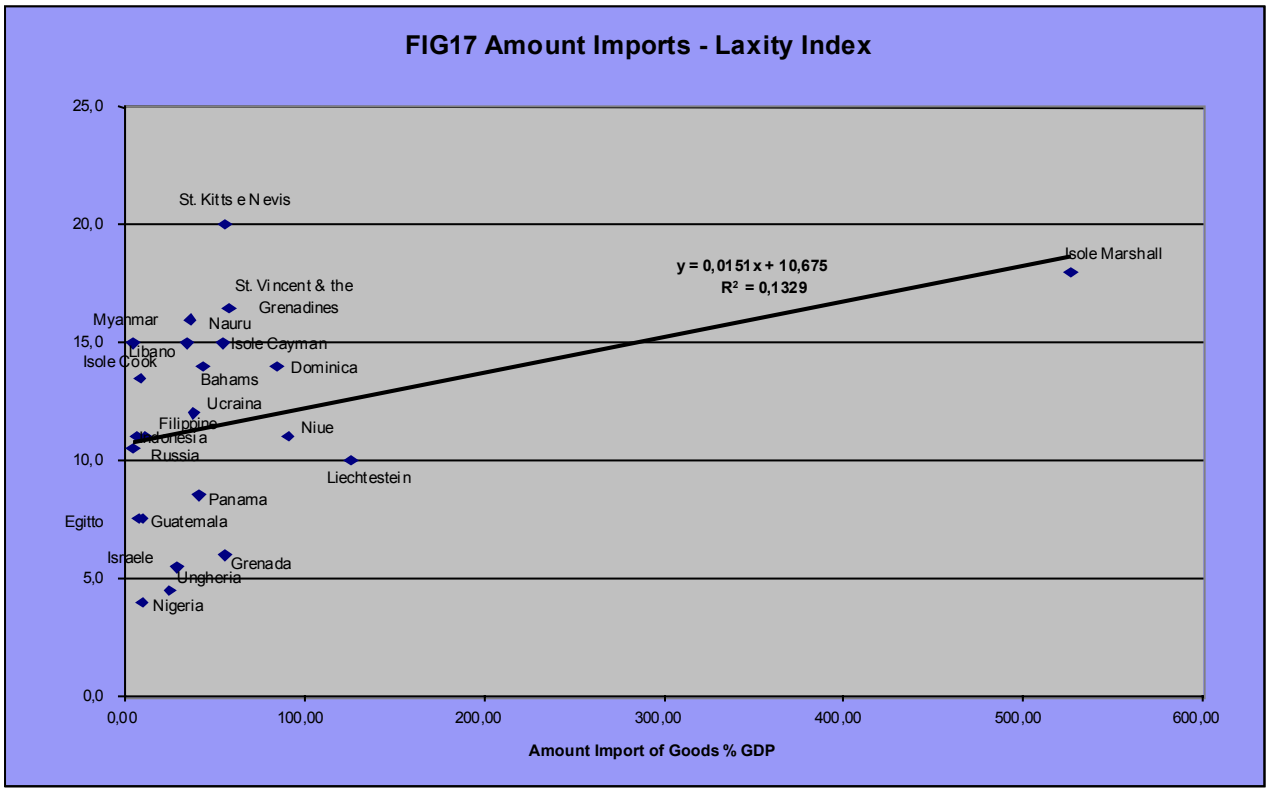


FIG. 14 Work Force % Total Population – Weighted Laxity Index
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
0,00
10,00
20,00
30,00
40,00
50,00
60,00
70,00
80,00
Work Force % TotalPopulation
y = -0,3058x + 36,783
R² = 0,0768
St. Vincent & the Grenadines
Libano
Isole Cook
Dominica
Niue
Russia
Filippine
Myanmar
Indonesia
Israele
Isole Cayman
Egitto
Guatemala
Ucraina
Liechtestein
Bahams
Ungheria
Panama
Nigeria
Grenada

5) the worse their balance of payments problems; an inverse relationship is noted between the amount of exports of goods and services, as a percentage of GDP, and laxity (figures 15 and 16), while there is a direct relationship between the amount of imports of goods and services, as a percentage of GDP, and laxity (figures 17 and 18); there is also a positive relationship, though a weak one, between per-capita foreign debt and laxity (figures 19 and 20), and between the flow of economic aid abroad, as a percentage of GDP, and laxity (figures 23 and 24).



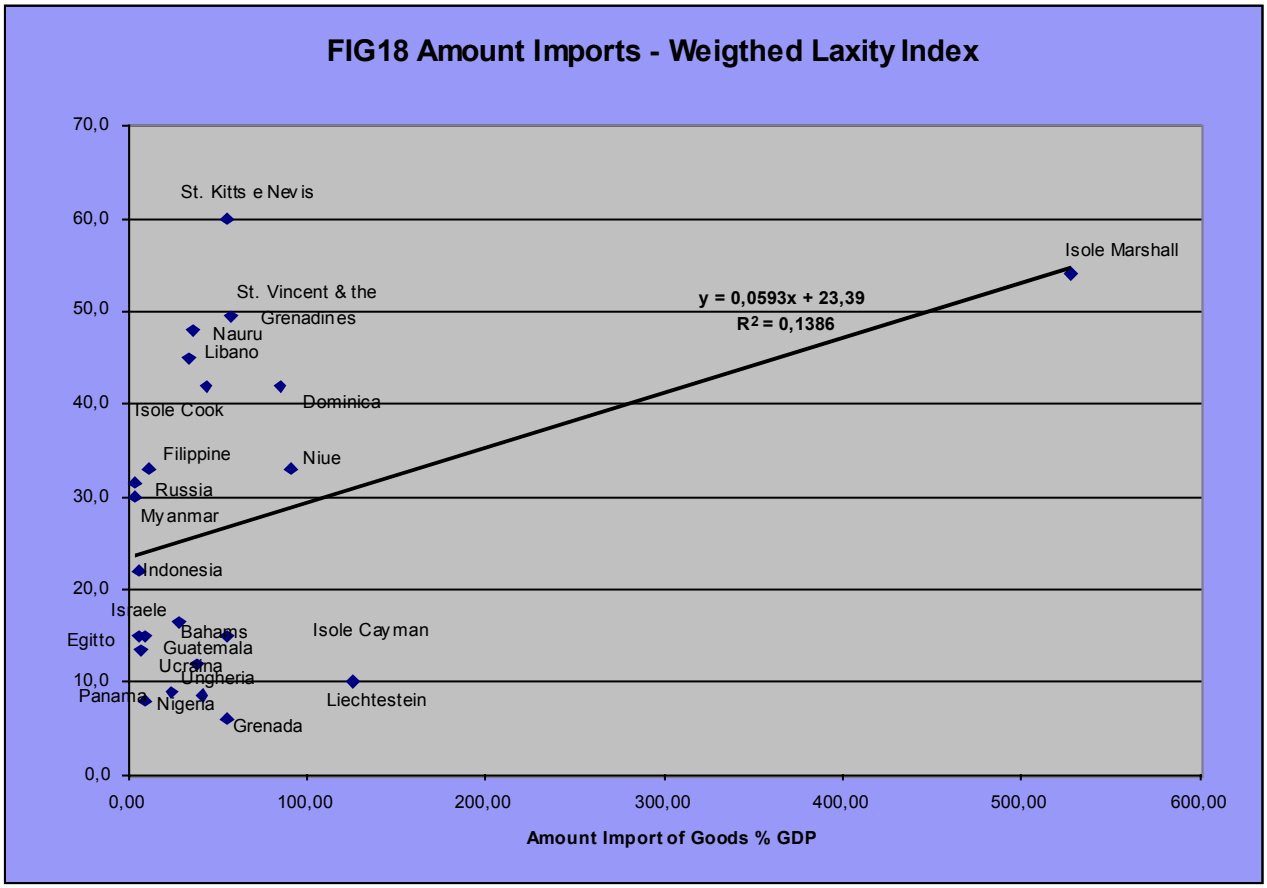


FIG18 Amount Imports - Weigthed Laxity Index
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
St. Kitts e Nevis
Isole Marshall
St. Vincent & the Grenadines
Nauru
Libano
Dominica
Isole Cook
Filippine
Niue
Russia
Myanmar
Indonesia
Israele
Egitto
Bahams
Isole Cayman
Guatemala
Ucraina
Ungheria
Panama
Nigeria
Liechtestein
Grenada
y = 0,0593x + 23,39
R² = 0,1386
0,00
100,00
200,00
300,00
400,00
500,00
600,00
Amount Import of Goods % GDP

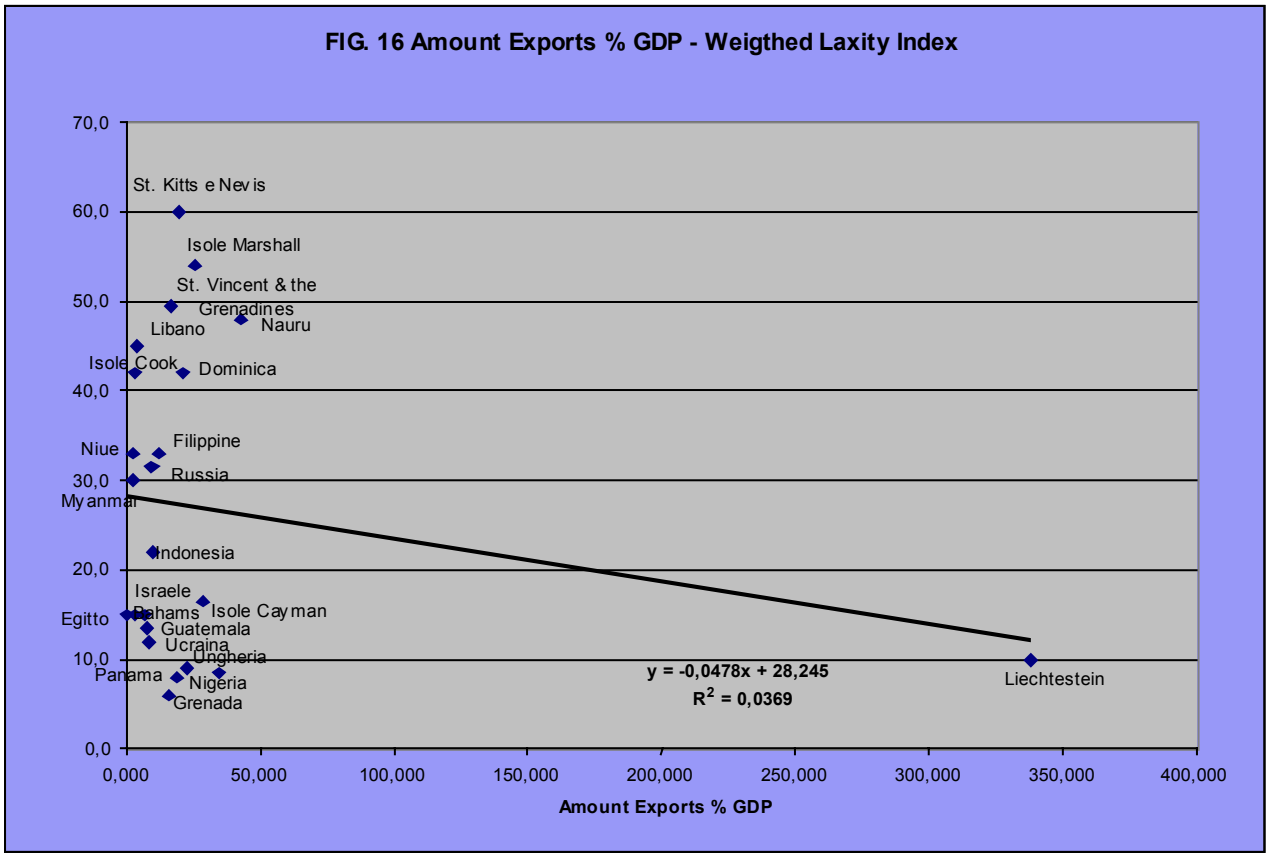


FIG. 16 Amount Exports % GDP - Weigthed Laxity Index
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
St. Kitts e Nevis
Isole Marshall
St. Vincent & the Grenadines
Nauru
Libano
Isole Cook
Dominica
Niue
Filippine
Russia
Myanmar
Indonesia
Israele
Egitto
Bahams
Isole Cayman
Guatemala
Ucraina
Ungheria
Panama
Nigeria
Grenada
Liechtestein
y = -0,0478x + 28,245
R² = 0,0369
0,000
50,000
100,000
150,000
200,000
250,000
300,000
350,000
400,000
Amount Exports % GDP

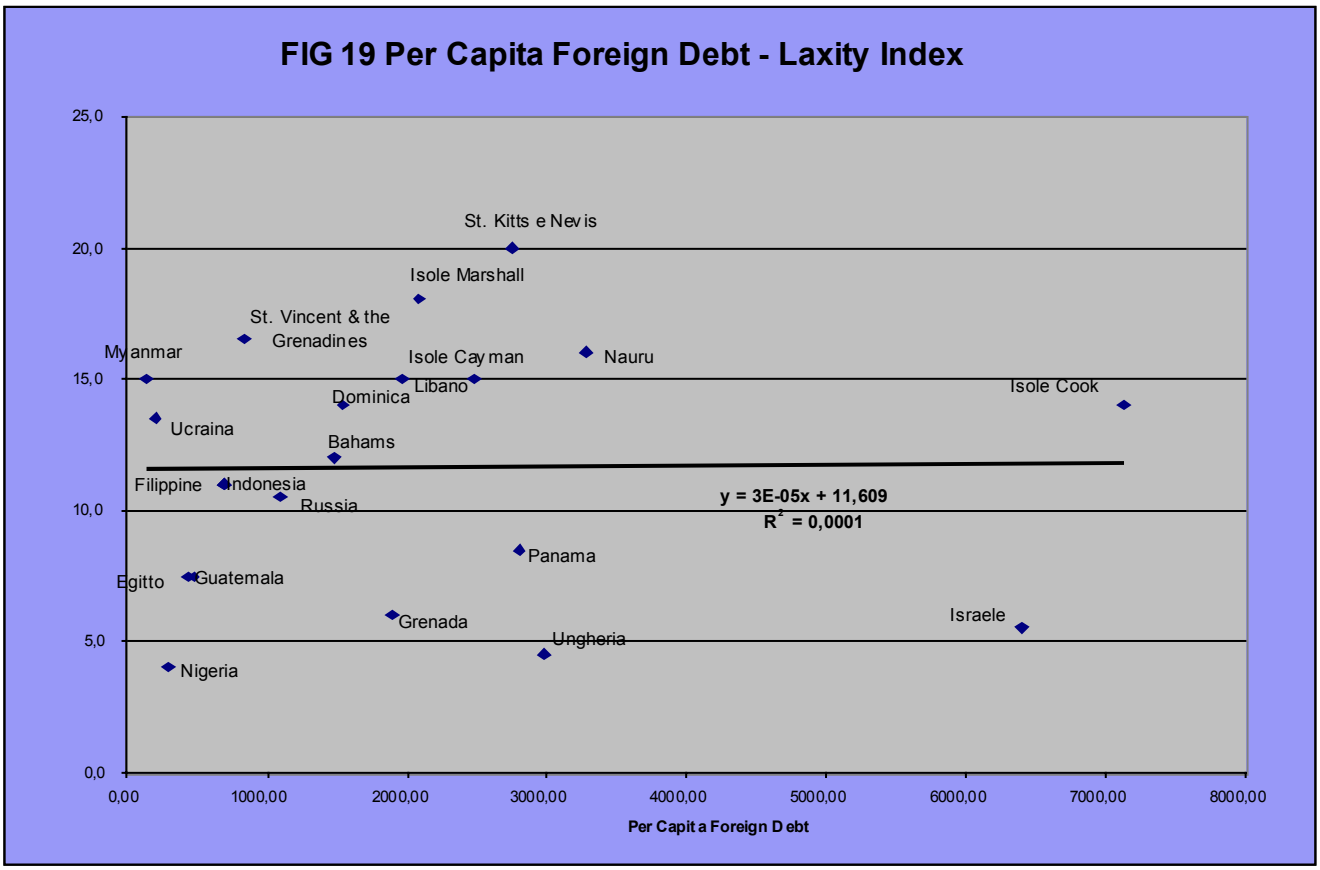


FIG 19 Per Capita Foreign Debt - Laxity Index
25,0
20,0
15,0
10,0
5,0
0,0
0,00
1000,00
2000,00
3000,00
4000,00
5000,00
6000,00
7000,00
8000,00
Per Capita Foreign Debt
St. Kitts e Nevis
Isole Marshall
St. Vincent & the Grenadines
Myanmar
Isole Cayman
Nauru
Libano
Dominica
Isole Cook
Ucraina
Bahams
Filippine
Indonesia
Russia
y = 3E-05x + 11,609
R² = 0,0001
Panama
Egitto
Guatemala
Grenada
Israele
Ungheria
Nigeria

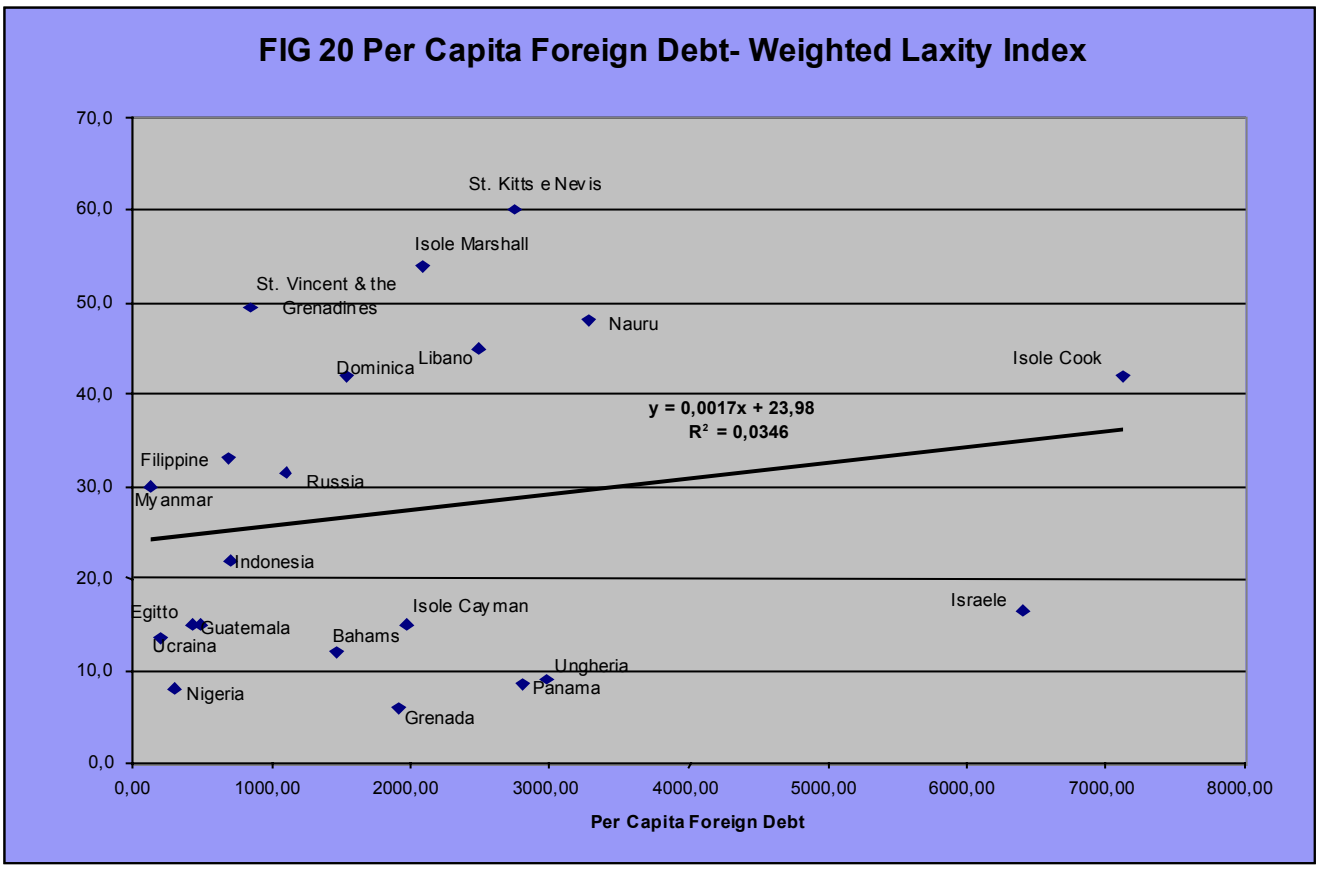


FIG 20 Per Capita Foreign Debt- Weighted Laxity Index
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
0,00
1000,00
2000,00
3000,00
4000,00
5000,00
6000,00
7000,00
8000,00
Per Capita Foreign Debt
St. Kitts e Nevis
Isole Marshall
St. Vincent & the Grenadines
Nauru
Libano
Dominica
Isole Cook
y = 0,0017x + 23,98
R² = 0,0346
Filippine
Russia
Myanmar
Indonesia
Egitto
Isole Cayman
Israele
Guatemala
Ucraina
Bahams
Ungheria
Panama
Nigeria
Grenada

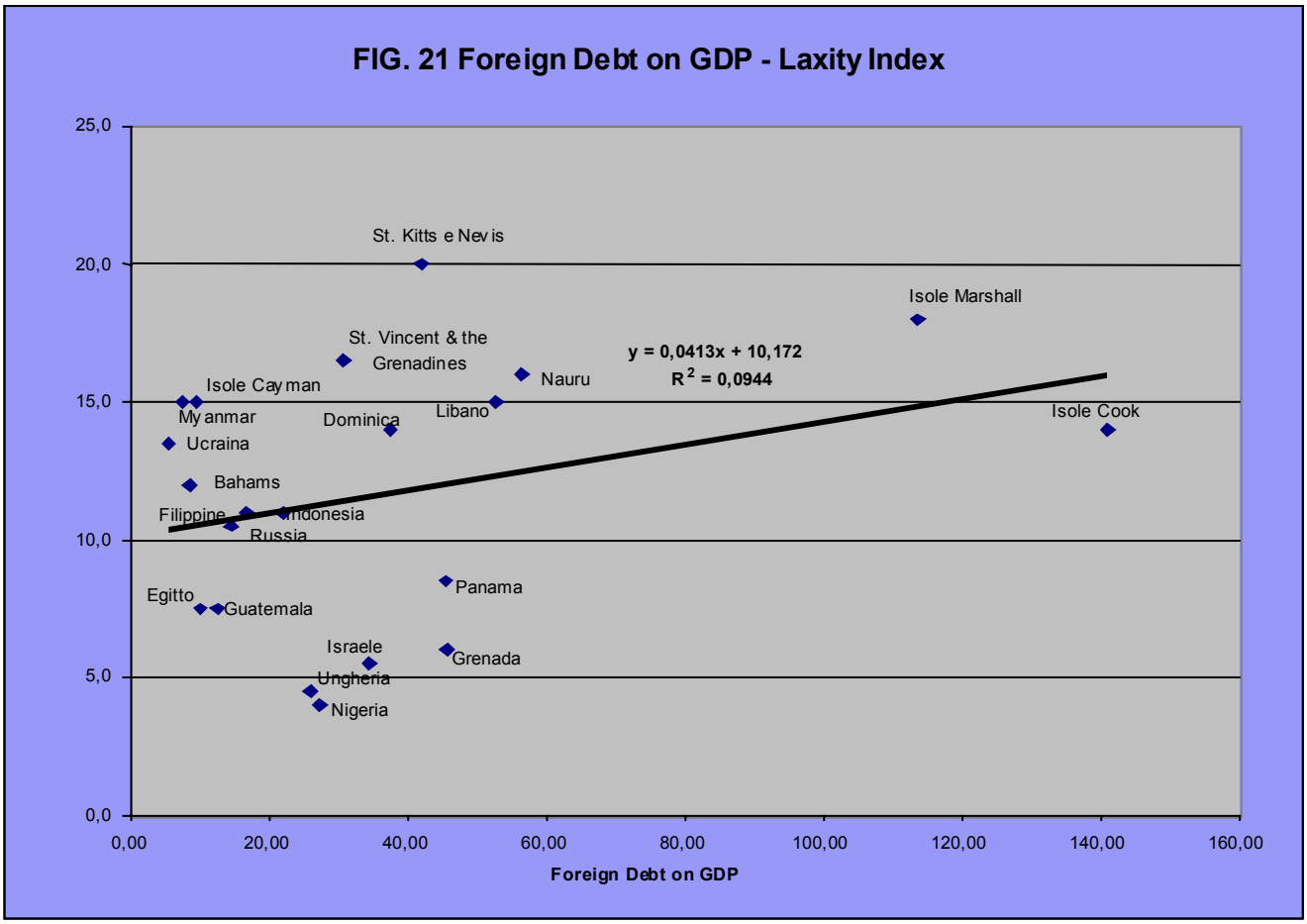


FIG. 21 Foreign Debt on GDP - Laxity Index
y = 0,0413x + 10,172
R2 = 0,0944
St. Kitts e Nevis
Isole Marshall
St. Vincent & the Grenadines
Nauru
Isole Cayman
Libano
Myanmar
Dominica
Isole Cook
Ucraina
Bahams
Filippine
Indonesia
Russia
Panama
Egitto
Guatemala
Israele
Grenada
Ungheria
Nigeria
25,0
20,0
15,0
10,0
5,0
0,0
0,00
20,00
40,00
60,00
80,00
100,00
120,00
140,00
160,00
Foreign Debt on GDP

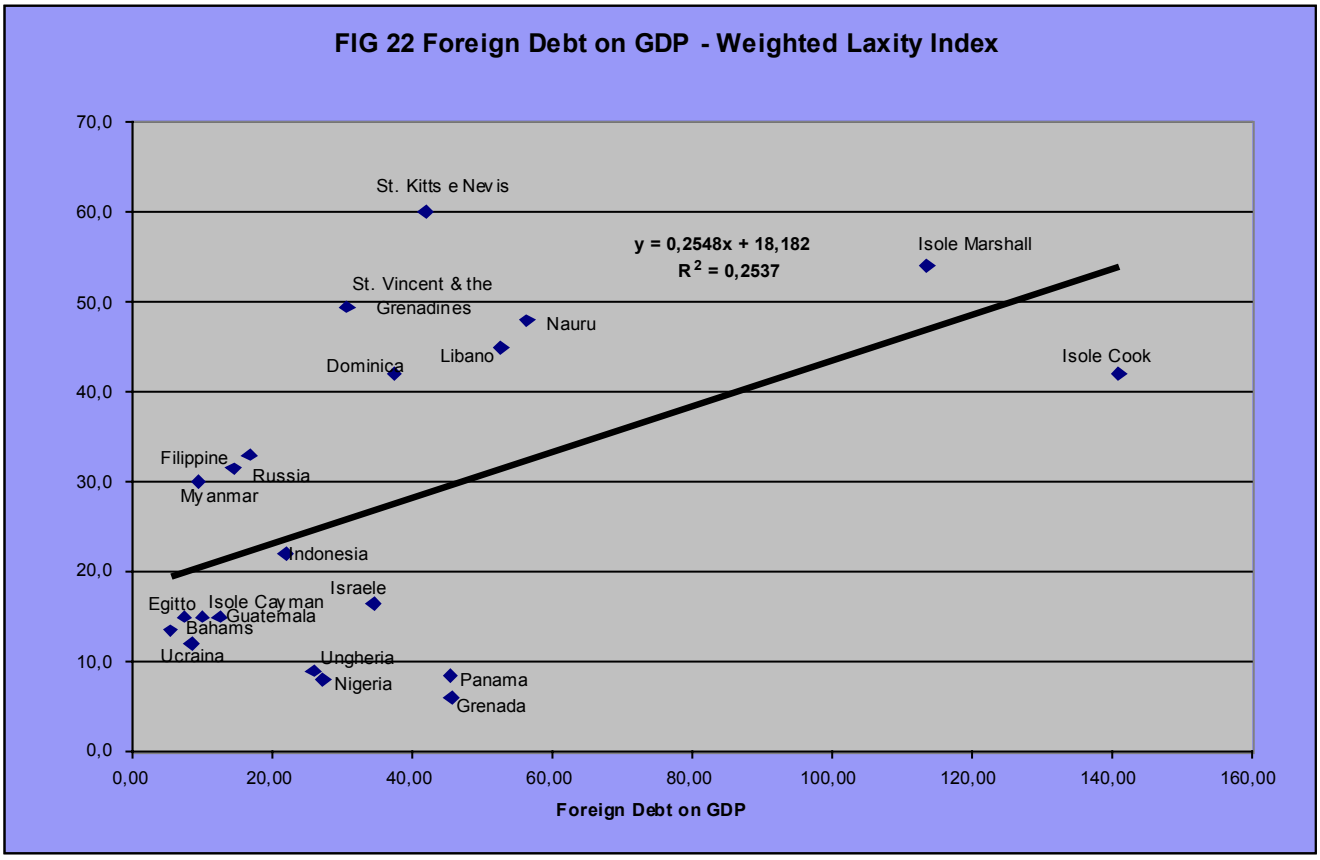


FIG 22 Foreign Debt on GDP - Weighted Laxity Index
y = 0,2548x + 18,182
R2 = 0,2537
St. Kitts e Nevis
Isole Marshall
St. Vincent & the Grenadines
Nauru
Libano
Dominica
Isole Cook
Filippine
Russia
Myanmar
Indonesia
Israele
Egitto
Isole Cayman
Guatemala
Bahams
Ucraina
Ungheria
Nigeria
Panama
Grenada
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
0,00
20,00
40,00
60,00
80,00
100,00
120,00
140,00
160,00
Foreign Debt on GDP

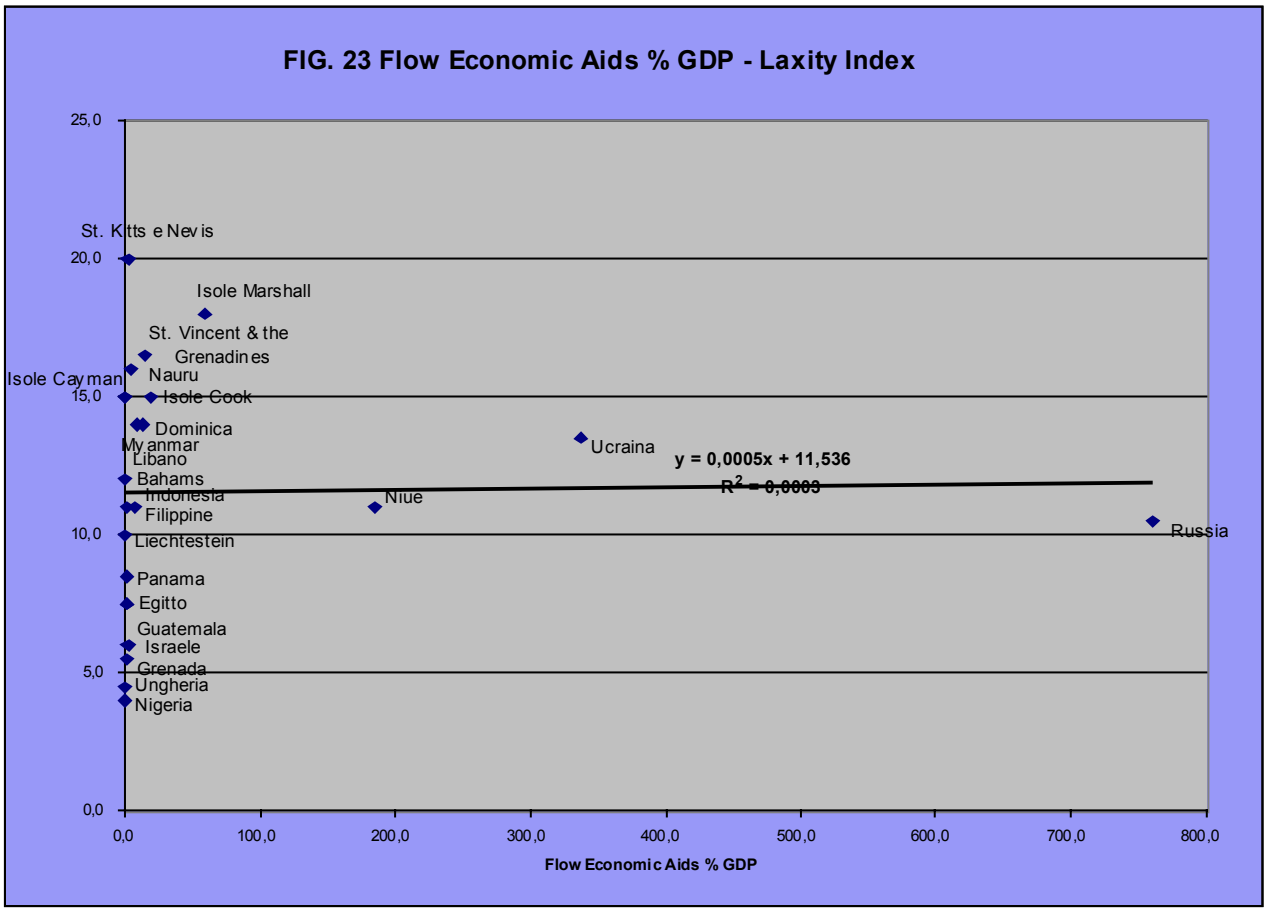


FIG. 23 Flow Economic Aids % GDP - Laxity Index
25,0
20,0
15,0
10,0
5,0
0,0
St. Kitts e Nevis
Isole Marshall
St. Vincent & the Grenadines
Nauru
Isole Cayman
Isole Cook
Dominica
Myanmar
Libano
Bahams
Indonesia
Filippine
Liechtestein
Panama
Egitto
Guatemala
Israele
Grenada
Ungheria
Nigeria
Ucraina
Niue
Russia
y = 0,0005x + 11,536
R2 = 0,0003
0,0
100,0
200,0
300,0
400,0
500,0
600,0
700,0
800,0
Flow Economic Aids % GDP

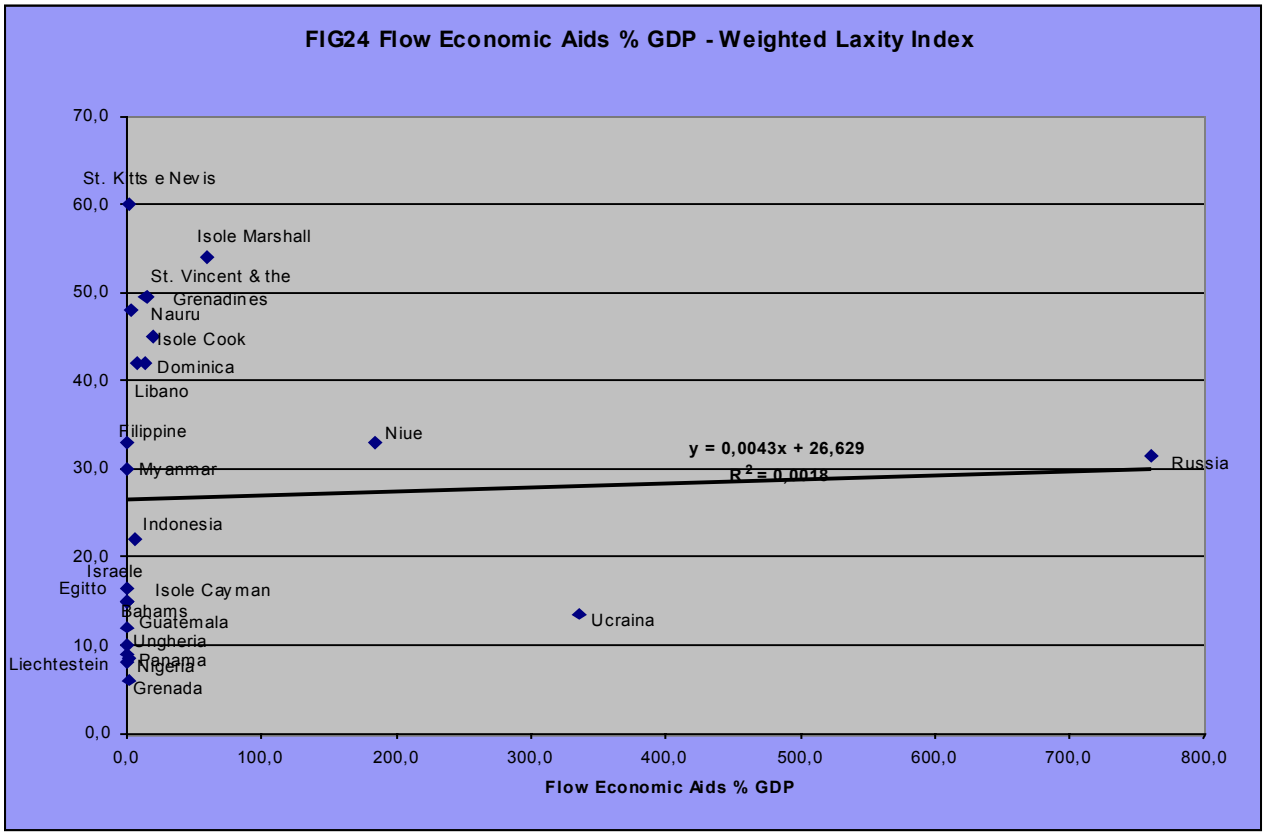
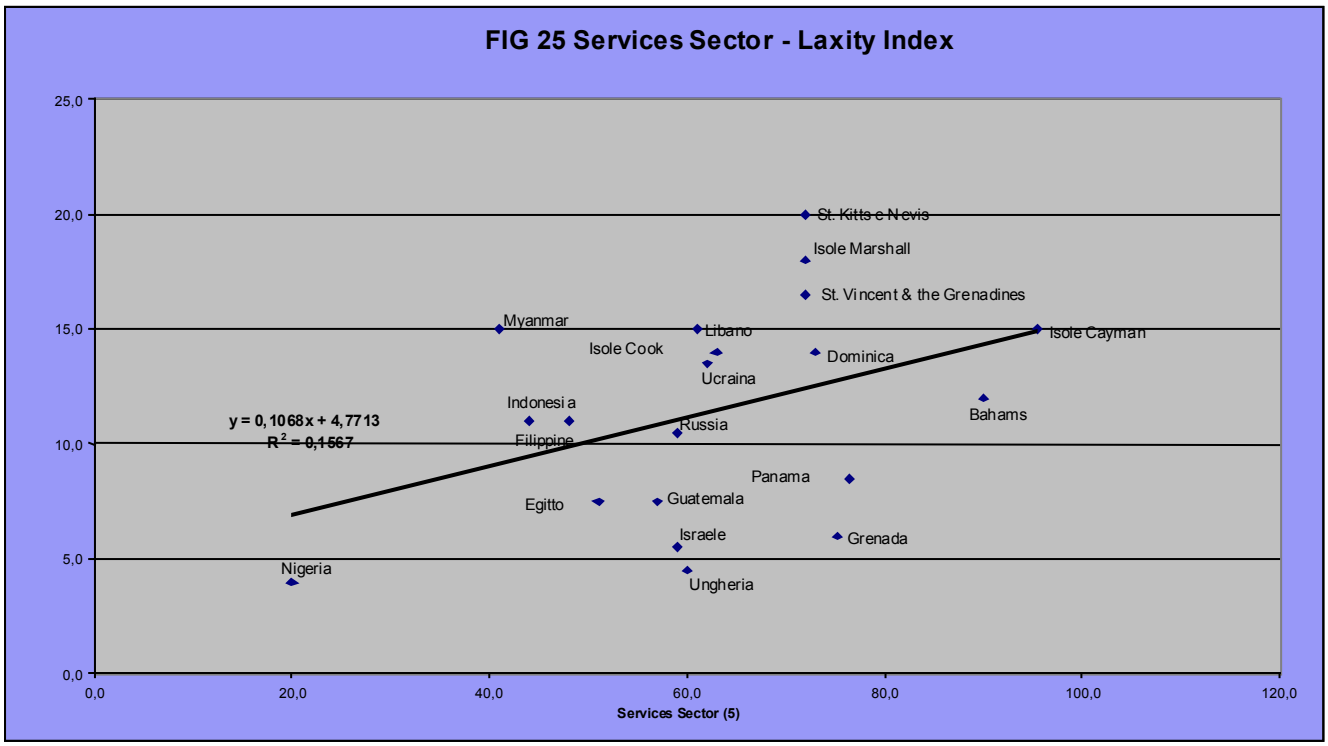
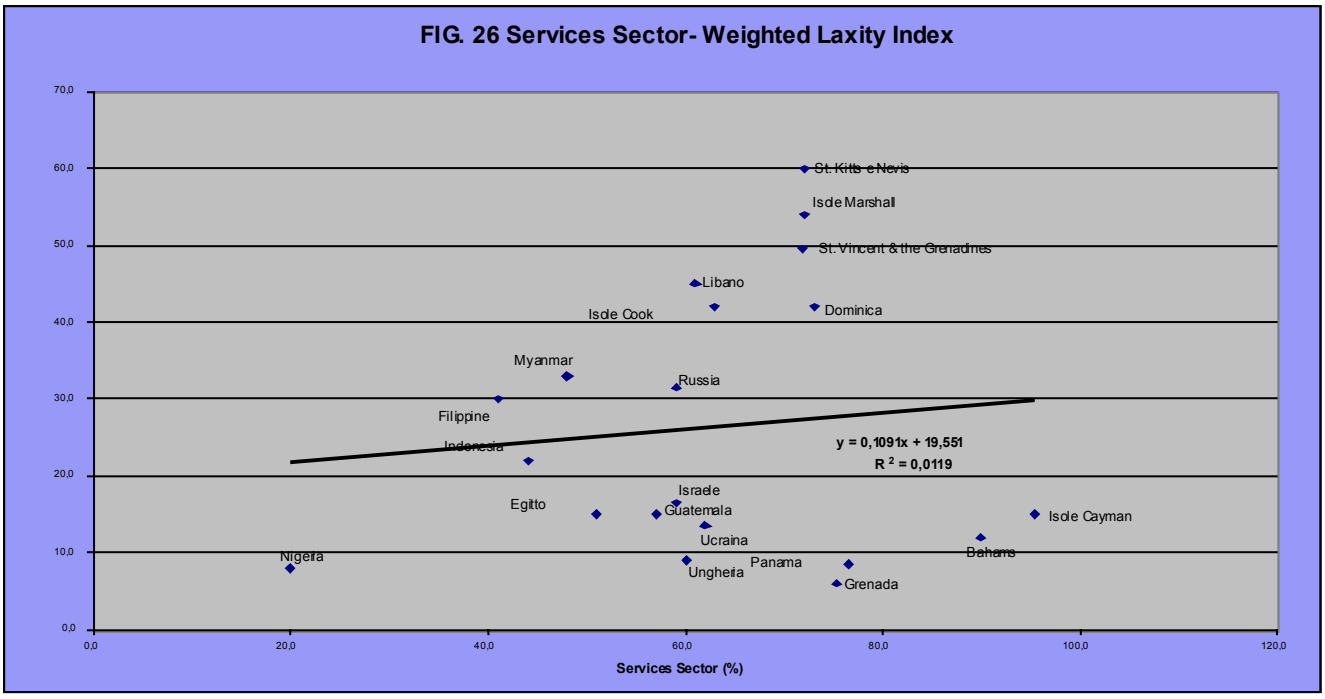


FIG24 Flow Economic Aids % GDP - Weighted Laxity Index
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
St. Kitts e Nevis
Isole Marshall
St. Vincent & the Grenadines
Nauru
Isole Cook
Dominica
Libano
Filippine
Myanmar
Indonesia
Israele
Egitto
Isole Cayman
Bahams
Guatemala
Ungheria
Liechtestein
Panama
Nigeria
Grenada
Niue
Ucraina
Russia
y = 0,0043x + 26,629
R2 = 0,0018
0,0
100,0
200,0
300,0
400,0
500,0
600,0
700,0
800,0
Flow Economic Aids % GDP

Secondly, we have affirmed that an LFR country has the possibility of developing its offering of financial services, also useful for purposes of money laundering, and this is a second channel of *national benefit* expected from money laundering. In this regard, we note that the NCCTs tend to be laxer:

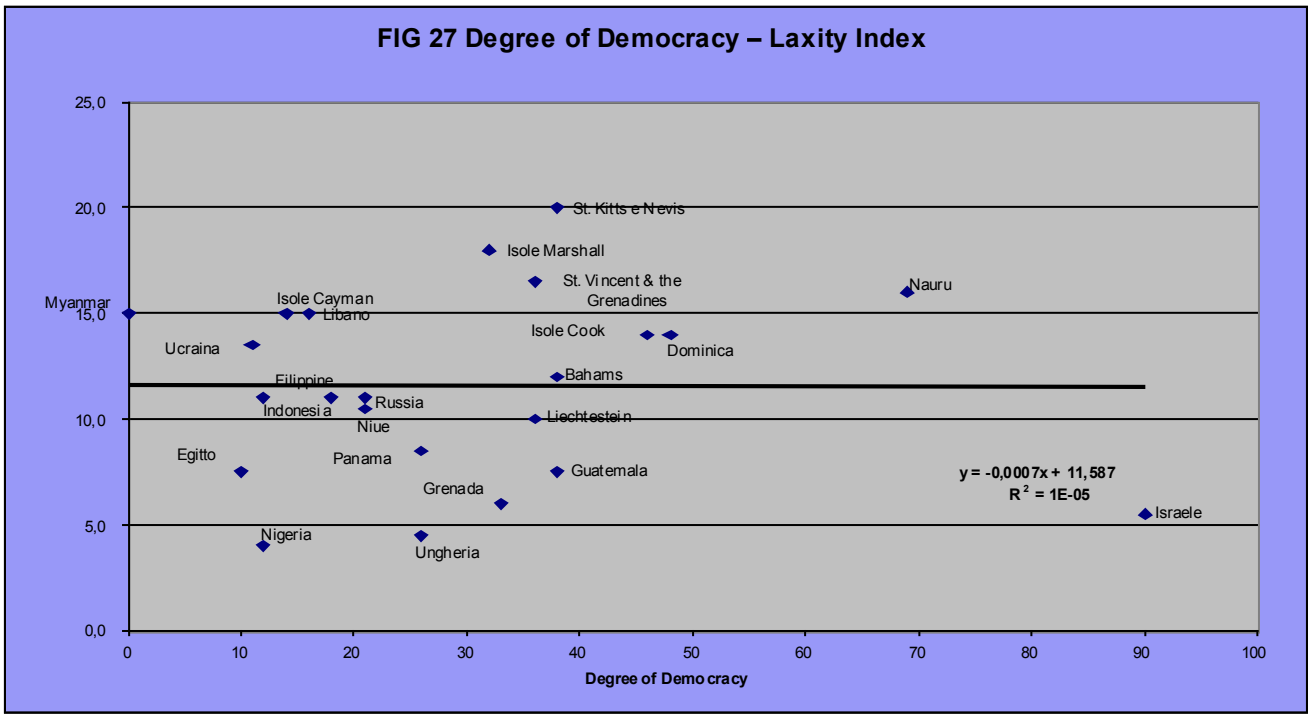
6) the more they have developed the services sector, which includes financial services; we note a direct relationship, in fact, between the size of the services sector, as a percentage of GDP, and laxity (figures 25 and 26)

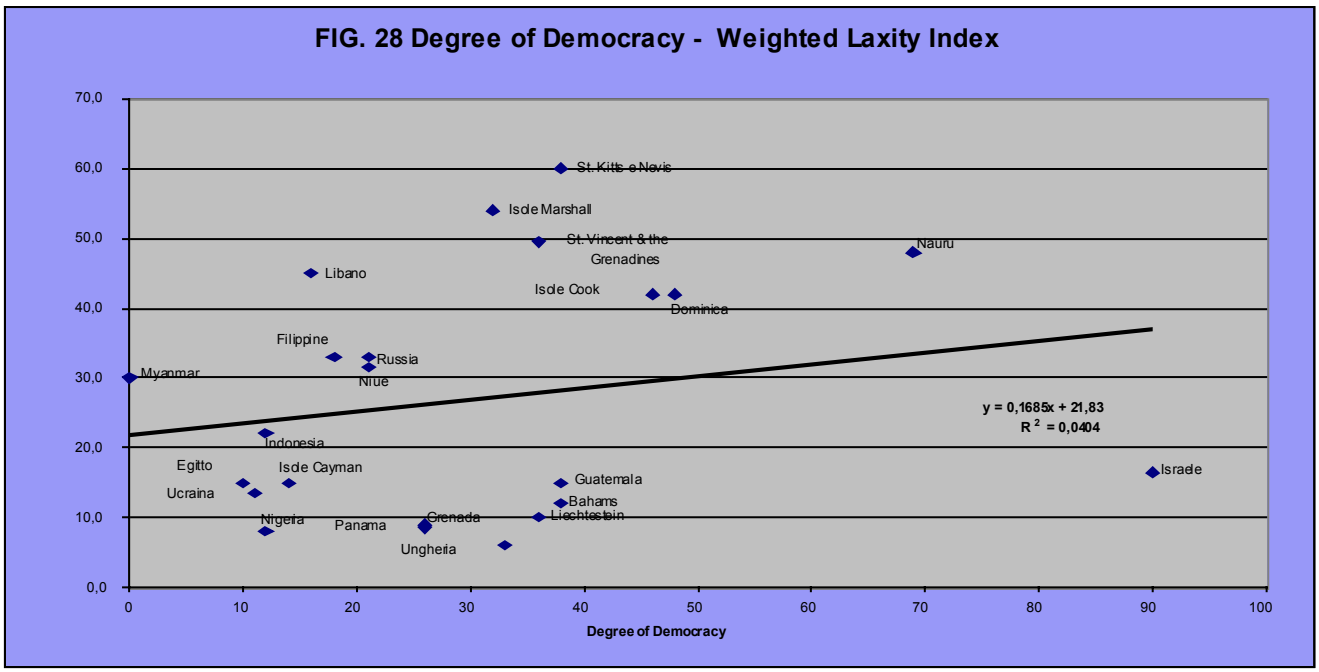


Thirdly, we have affirmed that the attractiveness of the offering of money laundering by an LFR country may depend, all other things being equal, on the institutional and legal characteristics of the country, which make it more attractive to foreign capital of illegal origin (*law attractiveness*). We would note, in this regard, that the NCCTs tend to be laxer:

7) as their degree of democracy increases: a direct relationship emerges between the index of democracy and laxity, at least regarding the Weighted Laxity Index, also confirmed by regression analysis (Table 4);



8) if the country's legal system is based on common law, as the regression analysis demonstrates (Table 4);

With regard to point 8), the presence of many common law countries in the list might be explained on the ground that common law appears to have some advantages, from the perspective of the *ex post* governance of contractual relations. This is no news, as there is a consistent body of literature on the "nature" of common law, one of the most famous examples being Hayek's interpretation of common law as a "spontaneous order".[35] Common law develops on a case-by-case basis, following the impulses deriving from private parties that take the case before court. The law is therefore shaped through a bottom-up process, from private parties up, rather than through a top-down process, from the legislature down. Common law judges are more inclined to think precisely in terms of filling gaps. Indeed, it is often said that the role of the judge is precisely one of second guessing "what the parties would have wanted" had they been able to preview the unspecified contingencies.[36]

The role of common law might also be explained on a different ground. Common law systems are sometimes credited with a greater degree of independence of the judiciary from the executive.[37] For some countries,[38] this observation reflects a stricter approach to the separation of powers doctrine than in civil law countries. We are skeptical about *a priori* claims concerning the greater independence of the judiciary in a given set of countries. At the same time, we acknowledge that the presence of common law countries in the Fatf list might also be partially explained on the ground that the relationship with criminal organizations is better insulated from the risk of opportunistic switches by political authorities within the off-shore.

A points needs to be clarified, lest we be misunderstood. We are not saying that common law countries are more actively involved in money laundering. Quite obviously, the most important common law countries. e.g. the United Kingdom, the United States, and Australia, play a prominent role in the global fight against money laundering. We are merely saying that within the set of countries that try to attract capitals of illicit origins, common law countries might be, *ceteris paribus*, in an advantageous position, thus being more likely to emerge in the competition. At the same time, the potential for common law to facilitate the exchange between Off-shore and Criminal is merely the flipside of an otherwise positive feature of common law.

[35] HAYEK. (1960)
Recent empirical research has even tryed to establish a positive correlation between the adoption of a common law system and a higher rate of economic growth, see MAHONEY. (2000)

[36] In short, common law is usually thought to be more respectful of private property rights, thus allowing a more efficient allocation of resources. See, for example, POSNER, (1998) at 272: "[…] the common law establishes property rights, regulates their exchange, and protects them against unreasonable interference – all to the end of facilitating the operation of the free market, and where the free market is unworkable of simulating its results."

[37] We incidentally observe that this observation is usually made by authors who have a common law background. See for example MAHONEY. (2000)

[38] Such as the United States.

## TABLE 4

LAXITY INDEX SU 23 PAESI OFF-SHORE con dummy common law

Countries: Bahamas, Domenica, Egitto, Filippine, Grenada, Guatemala, Indonesia, Isole Cayman, Isole Cook, Isole Marshall, Israele, Libano, Liechtestein, Myanmar, Nauru, Nigeria, Niue, Panama, Russia, St. Kitts e Nevis, St. Vincent & the Grenadines, Ucraina, Ungheria

| Source | SS | df | MS | | |
|---|---|---|---|---|---|
| Model | 212.005703 | 6 | 35.3342839 | Number of obs | 23 |
| Residual | 200.429079 | 16 | 12.5268175 | F( 6, 16) | 2.82 |
| | | | | Prob > F | 0.0455 |
| | | | | R-squared | 0.5140 |
| | | | | Adj R-squared | 0.3318 |
| Total | 412.434783 | 22 | 18.7470356 | Root MSE | 3.5393 |

| y1 | Coef. | Std. Err. | t | P>\|t\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| x1 | -.0987171 | .0951274 | -1.04 | 0.315 | -.3003782 | .1029441 |
| x2 | .0162492 | .0442282 | 0.37 | 0.718 | -.0775104 | .1100087 |
| x3 | -1.746403 | .533686 | -3.27 | 0.005 | -2.877767 | -.6150391 |
| x4 | .0976096 | .0388152 | 2.51 | 0.023 | .015325 | .1798942 |
| x5 | .3448446 | .1632165 | 2.11 | 0.051 | -.001159 | .6908481 |
| dummy2 | 4.642606 | 1.949678 | 2.38 | 0.030 | .5094734 | 8.77574 |
| _cons | 7.682807 | 2.796337 | 2.75 | 0.014 | 1.754838 | 13.61078 |

y1=Laxity Index; x1=Land exploitation; x2=Degree of Democracy; x3=Real Growth in GDP; x4=Services Sector; x5=Average Inflation Rate; dummy2=Common Law (1)

9) as the efficiency and effectiveness of their public administrations increases (figures 29 and 30), as demonstrated by the regression analysis (Table 5);

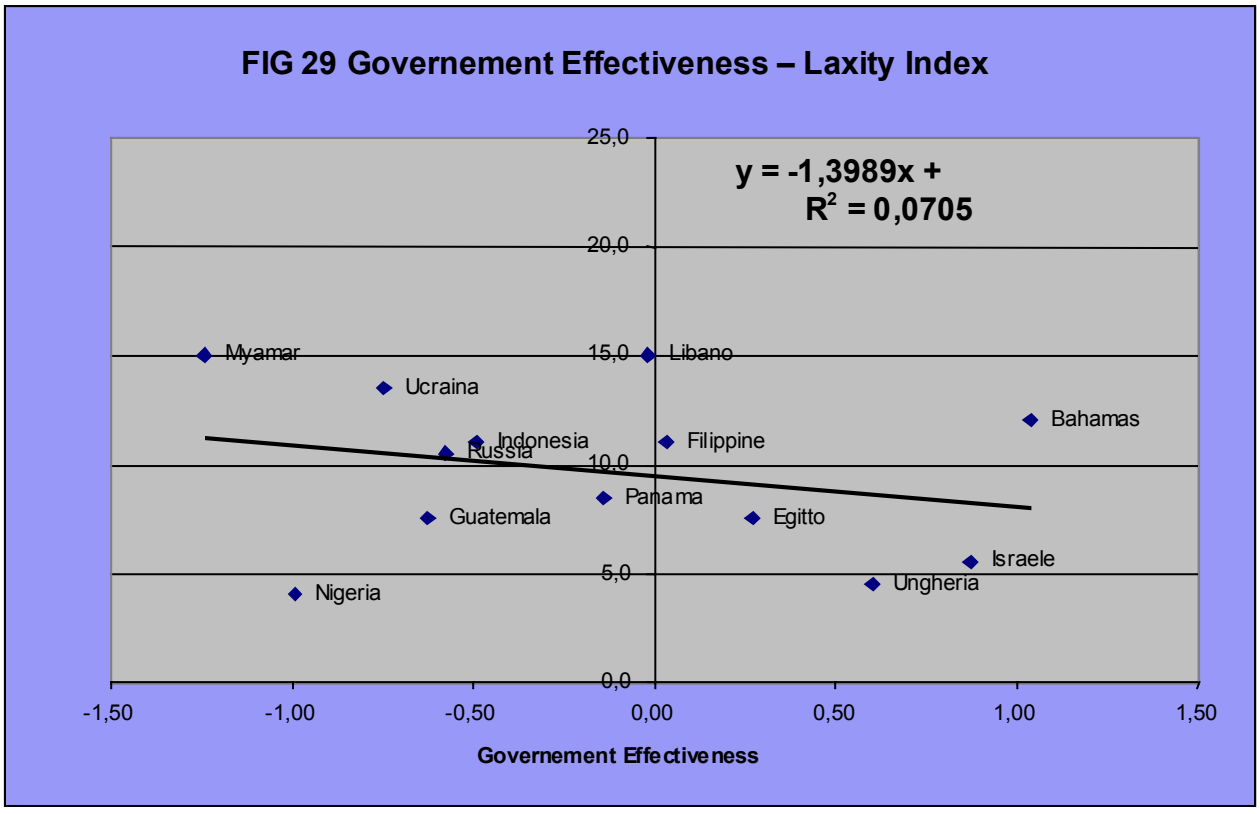
**TABLE 5**

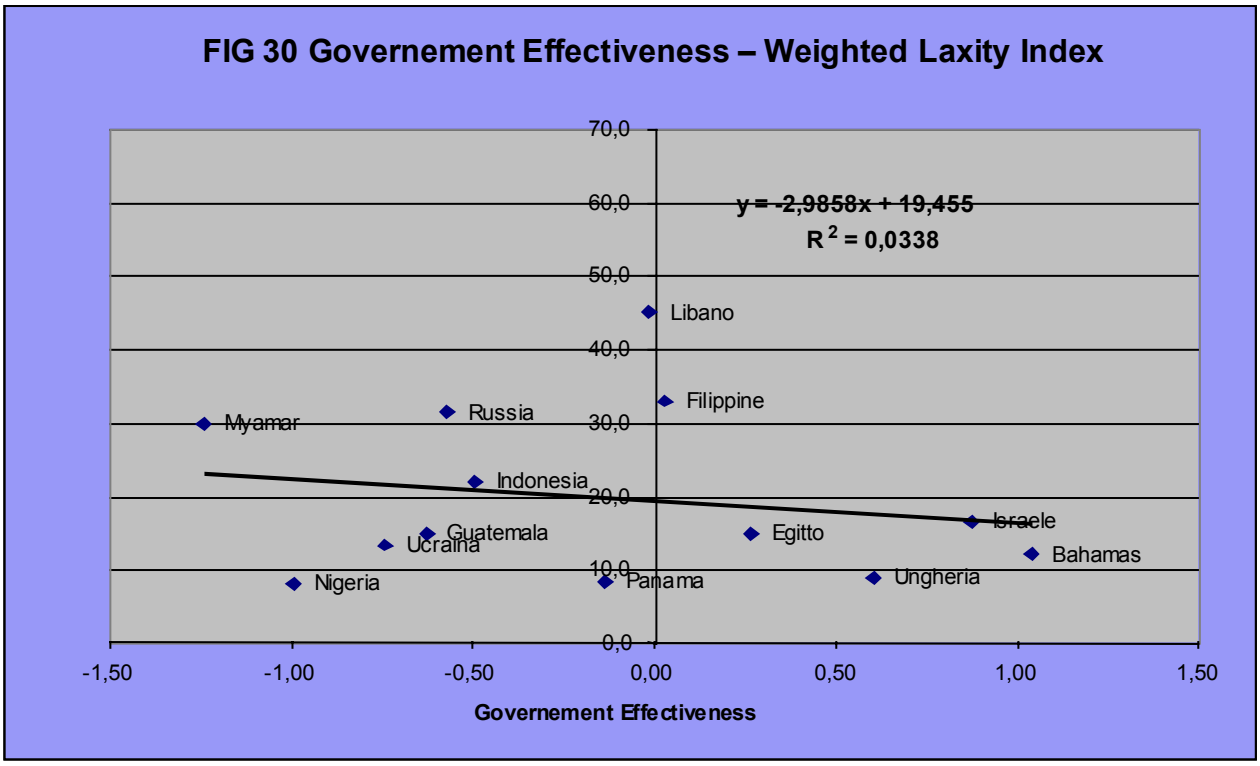
LAXITY INDEX SU 13 PAESI OFF-SHORE with var: Government Effectiveness

Paesi considerati: Bahamas, Egitto, Filippine, Guatemala, Indonesia, Israele, Libano, Myanmar, Nigeria, Panama, Russia, Ucraina, Ungheria

```
      Source |       SS       df       MS              Number of obs =      13
-------------+------------------------------           F(  7,     5) =    4.76
       Model |  138.178181     7  19.7397402           Prob > F      =  0.0525
    Residual |  20.7448955     5  4.14897911           R-squared     =  0.8695
-------------+------------------------------           Adj R-squared =  0.6867
       Total |  158.923077    12  13.2435897           Root MSE      =  2.0369

------------------------------------------------------------------------------
          y1 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          x1 |    .114315   .2393794     0.48   0.653    -.5010294    .7296594
          x2 |   .0091868   .0420814     0.22   0.836     -.098987    .1173605
          x3 |  -3.475367   1.431788    -2.43   0.060    -7.155896    .2051624
          x4 |   .1309562   .0764009     1.71   0.147    -.0654386    .3273509
          x5 |   .8228055     .29594     2.78   0.039     .0620675    1.583543
      dummy2 |   6.438311   1.881139     3.42   0.019      1.60269    11.27393
          e2 |   2.826292   3.017313     0.94   0.392    -4.929959    10.58254
       _cons |   7.774548   8.069719     0.96   0.380    -12.96933    28.51842
------------------------------------------------------------------------------
```

y1=Laxity Index; x1=Land Exploitation; x2=Degree of Democracy; x3=Real growth in GDP; x4=Services Sector; x5=Average Inflation Rate; dummy2=Common Law (1); e2=Governement Effectiveness






10) as their rate of legality increases (figures 31 and 32), as the regression analysis demonstrates (Table 6)

**TABLE 6**

LAXITY INDEX SU 13 PAESI OFF-SHORE with var: rule of law

Countries: Bahamas, Egitto, Filippine, Guatemala, Indonesia, Israele, Libano, Myanmar, Nigeria, Panama, Russia, Ucraina, Ungheria

| Source | SS | df | MS | | |
|---|---|---|---|---|---|
| Model | 140.794829 | 7 | 20.113547 | Number of obs | 13 |
| Residual | 18.1282482 | 5 | 3.62564964 | F( 7, 5) | 5.55 |
| Total | 158.923077 | 12 | 13.2435897 | Prob > F | 0.0387 |
| | | | | R-squared | 0.8859 |
| | | | | Adj R-squared | 0.7262 |
| | | | | Root MSE | 1.9041 |

| y1 | Coef. | Std. Err. | t | P>\|t\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| x1 | .2086963 | .1849085 | 1.13 | 0.310 | -.2666261 | .6840186 |
| x2 | .0055062 | .0379271 | 0.15 | 0.890 | -.0919885 | .1030009 |
| x3 | -3.263819 | 1.002307 | -3.26 | 0.023 | -5.840331 | -.6873063 |
| x4 | .1470936 | .0529428 | 2.78 | 0.039 | .0109997 | .2831875 |
| x5 | .777872 | .2029261 | 3.83 | 0.012 | .2562338 | 1.29951 |
| dummy2 | 6.54197 | 1.73053 | 3.78 | 0.013 | 2.093502 | 10.99044 |
| e4 | 2.243915 | 1.708122 | 1.31 | 0.246 | -2.146952 | 6.634781 |
| _cons | 6.110216 | 5.243358 | 1.17 | 0.296 | -7.368264 | 19.5887 |

y1=Laxity Index; x1=Land Exploitation; x2=Degree of Democracy; x3=Real Growth in GDP; x4=Services Sector; x5=Average Inflation Rate; dummy2=Common Law (1); e4=rule of law

**Figures 31: Rules of Law**

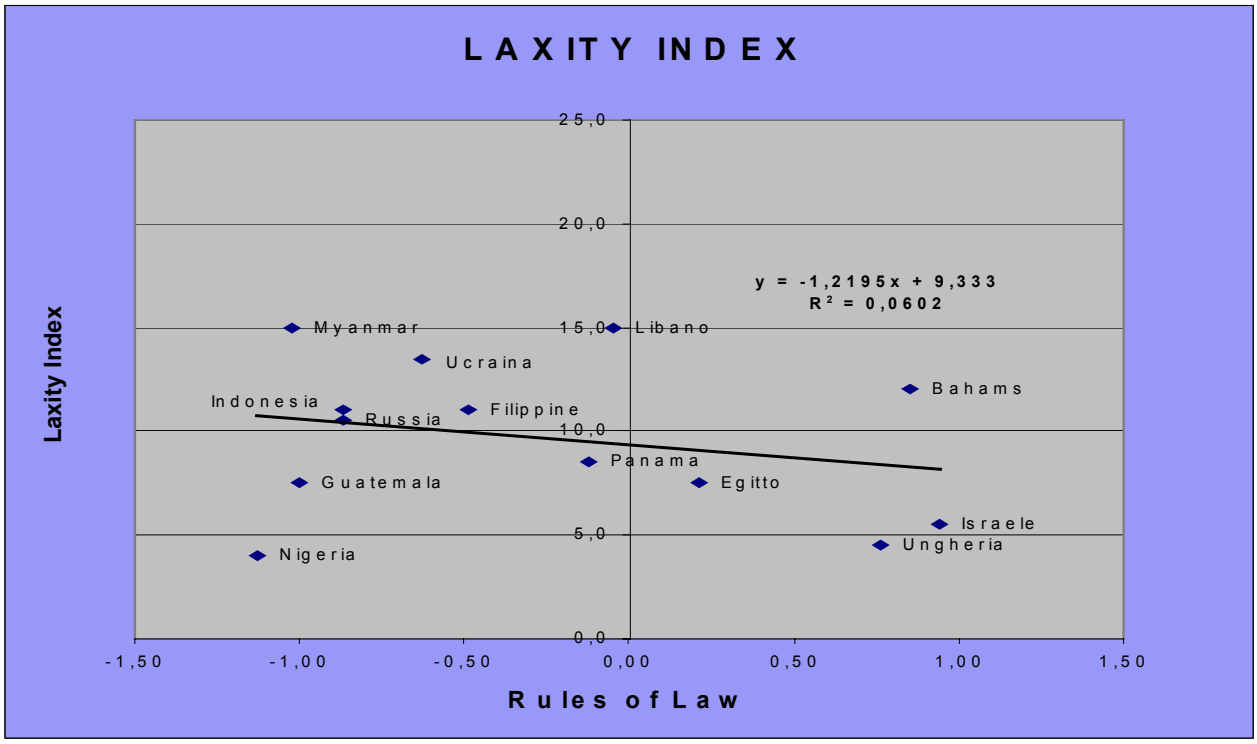
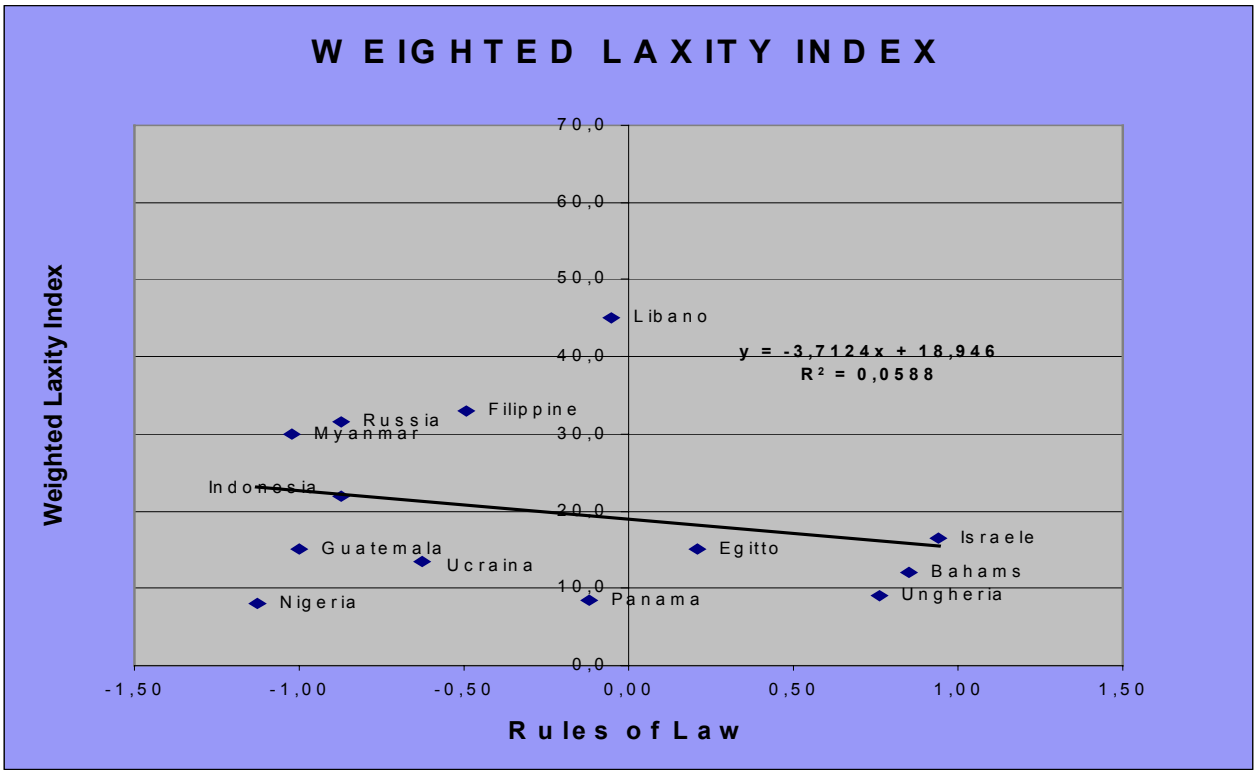



**Figure 32: Rule of Law**




To verify and improve our conclusions our techniques of analysis must be a bit more sophisticated.

We performed an initial regression analysis, where the variable to explain was precisely the degree of laxity in the NCCTs—summarized in the Laxity Index—and the explicative variables are

represented by the economic magnitudes already described (Table 4). The results of the regression are encouraging but certainly not definitive or conclusive.
While the explicative capacity of the entire regression is satisfactory, we note that the signs of the coefficients of the explicative variables are all those predicted in theory. In particular, laxity increases as income declines, as inflation increases, as the role of the services sector increases, and depends on the fact that the legal system in based on common law; all these variables, besides having the correct signs, also have significant values. Furthermore, laxity increases as the democracy index increases and the wealth of natural resources declines.
If we do the same regression, and we add as dummy variable the fact that a NCC country can be an island, the new dummy perform the correct signs; furthermore the explicative capacity of the entire regression is impreved. The cost of this results, given the strong correlation between the common law dummy variable and the island dummy variable, is represented by the fact that both the dummy variables have the correct signs, but have non significant values.
We then performed a second regression analysis in which, due to a lack of data, only 13 NCCTs[39] of the 23 countries were included, in order to verify the existence of a relationship between the degree of laxity and the efficiency of the institutions, in addition to the variables already used in the previous relationship. We discovered that the lax countries are characterized by relative high levels of efficiency in the public institutions (Table 5) and respect for the law (Table 6); both relationships have the expected plus sign, although the coefficients are not significant. In both cases, the explicative power of the entire regression is high and the signs correct, except one.

[39] Bahamas, Egypt, Philippines, Guatemala, Indonesia, Israel, Lebanon, Myanmar, Nigeria, Panama, Russia, Ukraine, and Hundary

Lastly, we have affirmed that an LFR country has geographical and social characteristics that shield it to some extent from the risks of organized crime, reducing the *expected cost* of money laundering (*expected national laundering costs*). Unfortunately, we have not yet been able to construct a series of data on organized crime in the 23 NCCTs.

In conclusion: using the FATF reports, we constructed two indicators of the degree of regulatory laxity in the non-cooperative countries. Then, despite the difficulties of acquiring data, we attempted to see whether the degree of laxity was related to specific economic and institutional characteristics of the NCCTs. We discovered that the degree of laxity is related, on the one hand, to geografical condition (to be an island), to variables of economic difficulty and specialization in the offering of services, including financial services; on the other, to variables that indicate political stability and efficiency in the public institutions. Therefore, the empirical analysis does not repudiate the theoretical assumption that countries that because of scant resources and relative specialization in the offering of financial services can derive considerable net expected national benefits from offering laundering services for illicit foreign capital can be or become LFR countries. On the other hand, those same countries can prove attractive to illicit foreign capital because of the stability and efficiency of their institutions.

The empirical relationships developed are interesting but not definitive or conclusive. This prompts at least three reflections. In terms of results, we must stress that the NCCTs display uniform economic and institutional elements, bolstering the significance of their presence in the TATF list, but also marked dissimilarities among them. This suggests two indications for designing international policies of prevention and combat. Firstly, that by modifying their formal rules they do not automatically cease to be LFR countries, since the incentives for laxity in combating the laundering of illicit capital may be very deep-rooted. Secondly, that the international community can have an impact on those roots through stick-and-carrot policies tailored to each country, precisely because the degree of laxity and its motivations may not be identical in each case.

Secondly, we must not exclude the possibility that there are LFR countries not presently included in the TATF list, perhaps because they are highly effective in bringing their formal rules in line with international precepts, while in their deeds they remain lax in the fight against money laundering. This implies a constant effort on the part of international organizations, particularly the TATF, in updating the criteria and monitoring the countries.

Lastly, in terms of research methods, we must continue to develop the theoretical analysis of the characteristics of LFR countries, and the institutional analysis of the NCCTs, also in geographical and historical terms.

## 8. CONCLUSIONS

Using the Fatf reports, we constructed two indicators of the degree of regulatory laxity in the non-cooperative countries. Then, despite the difficulties of acquiring data, we attempted to see whether the degree of laxity was related to specific economic and institutional characteristics of the NCCTs. We discovered that the degree of laxity is related, on the one hand, to variables of economic difficulty and specialization in the offering of services, including financial services; on the other, to variables that indicate political stability and efficiency in the public institutions. Therefore, the empirical analysis does not repudiate the theoretical assumption that countries that because of scant resources and relative specialization in the offering of financial services can derive

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The empirical relationships developed are interesting but not definitive or conclusive. This prompts at least three reflections. In terms of results, we must stress that the NCCTs display uniform economic and institutional elements, bolstering the significance of their presence in the Fatf list, but also marked dissimilarities among them. This suggests two indications for designing international policies of prevention and combat. On the one hand, that by modifying their formal rules they do not automatically cease to be LFR countries, since the incentives for laxity in combating the laundering of illicit capital may be very deep-rooted. On the other hand, that the international community can have an impact on those roots through stick-and-carrot policies tailored to each country, precisely because the degree of laxity and its motivations may not be identical in each case.

On a battlefield where reputation is one of the main weapons, policy makers engaged in the fight against international money laundering schemes should be very cautious in taking initiatives that may affect the reputation of the actors involved. A pure "name and shame" approach may even prove counterproductive. Tampering with reputational mechanisms might, at the same time, not only miss the target but also reach the wrong target. First, there is a high risk of false negatives, i.e. of including in a hypothetical list of countries that supply money laundering services countries that are merely engaged in the offer of financial services of superior quality. The costs of such an error appear great. To put it with the Financial Stability Forum, "not all [Off-shore centers] are the same. Some are well supervised and prepared to share information with other centres, and co-operate with international initiatives to improve supervisory practices. But the Survey carried out by the [Financial Stability Forum] indicated that there are serious concerns by onshore supervisors about the quality of supervision in, and degree of co-operation provided by, some [Off-shore centers]."[40]

Reputation is the basic tool of the trade also for countries that are not involved in money laundering schemes but are merely aiming at attracting capitals from abroad thorough the offer of superior quality financial services. From this perspective, a mistake by the international community that includes the wrong country in the list might cause serious distortions in the competition among jurisdictions. These countries, like victims of friendly fire, will find their reputation in the financial community seriously hampered, to the detriment of their role in the market. In the long run, such types of mistake appear also capable of curbing innovation in the financial sector. Regulatory arbitrage is a powerful force in driving innovation, and the international community should recognize that tinkering with the reputation of the actors involved is a dangerous game.

But even assuming that the international community is capable of effectively singling out off-shores that are indeed involved in money laundering schemes, a cautious approach is still deemed necessary. When the international community points the finger at a given country as a leading supplier of money laundering financial services, it may also be certifying, to the benefit of the country itself, that that country is indeed specialized in that business. The signaling effect embedded in the "name and shame approach" should not be underestimated. The main difficulty for an off-shore is solving credibly the commitment problem: Then, what's best for the off-shore than having the international community, not exactly its closest friends, solving that problem with a public statement? Listing should also be regarded as a sort of third party bonding, which is likely to generate two intertwined effects. First, it is capable of cementing the commitment by the off-shore. Secondly, naming increases the transaction specific character of investments in reputation. The inclusion in a list increases the value of the (sunk) investments in reputation. A state that is engaged in money laundering and that finds itself blacklisted will find it even more difficult to

[40] FINANCIAL STABILITY FORUM, (2000) Executive Summary, at 2.

switch course and decide to exit the market, thus being encouraged to compete aggressively in the market. It is like having somebody else burning the ships behind the *Conquistadores*. The final result does not change much. They still need to move forward.

This is not to say that the international community should not endeavor in listing countries that are involved in the market for money laundering services. Quite to the contrary; what this paper argues, is that a *per se* "name and shame" approach, separated from other initiatives, equals to a third party seal on the reputation of off-shore centers. Names should be named, but only if blacklisting goes hand in hand with other measures that are capable of outweighing the positive effects experienced by the off-shore center as a result of the inclusion in the list.

Appropriate countermeasures should be grounded on the premise that even the most efficient off-shore center will still need, in a globalized world, to be integrated in world financial markets. This implies that no matter how many layers of transactions cover the predicate offence, criminal organizations will still need to place that money within the lawful financial sector. This step is necessary, at a minimum, in order to exploit in lawful uses the capitals, once they have been laundered. Money laundering is by definition instrumental to a later use.

With this regard, it should be noted that there is a fundamental feature of the initiative taken by the Fatf that appears to be pivotal for its success. The Fatf has not limited its initiative to a mere recognition of "non cooperative countries and territories." Fatf member states have also applied "Recommendation 21"[41] to the countries included in the list. "Recommendation 21" requires a higher scrutiny by financial intermediaries in evaluating the possible suspect nature of transactions with counterparts, including legal persons, based in a country listed as non-cooperative. As a result of the Fatf initiative, many countries included in the list have already taken initiatives aimed at overcoming the serious deficiencies observed by the Fatf.[42] These initiatives need to be evaluated in the medium to the long run, because, for example, some of the enacted laws will need secondary regulations to be put in place to become effective, or, more generally, the initiatives taken at the legislative level will need to be followed by concrete actions. However, it can be argued that the threat of being crowded out by the international community has played a great role in spurring the adoption of the above mentioned initiatives.

The second conclusion that can be reached on the basis of the empirical evidence we have examined, is that we must not exclude the possibility that there are LFR countries not presently included in the Fatf list, perhaps because they are highly effective in bringing their formal rules in line with international precepts, while in their deeds they remain lax in the fight against money laundering. This implies a constant effort on the part of international organizations, particularly the Fatf, in updating the criteria and monitoring the countries.

Lastly, in terms of research methods, we must continue to develop the theoretical analysis of the characteristics of LFR countries, and the institutional analysis of the NCCTs, also in geographical and historical terms.

[41] See Fatf, (1990). (2000)
[42] See Fatf press communiqué of October 5th, 2000.

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