EDITORIAL NOTE

-Editors

The Literature of Law and Economics is enlarging throughout the globe, the main reason being that economics provides a general scientific methodology of recognizing and resolving complex phenomena in the day to day transactions. Further, it has proven itself to be a dynamic field encompassing both theoretical and empirical frameworks. And a lot of work is needed to be done and is being done. This Journal is an attempt to spread the discipline among a wider base so as to stimulate young minds in this field and catalyse the process of development of the same in India.

The present issue consists of three articles which cover different facets of law ranging from regulatory mechanism to Constitutional Law with a special insight on the developing 'Indian School of Thought' for law and economics which is in sync with the aim of the Journal. To solve some of the world's problems, is the outlook that all these articles echo, and they apply law & economics to these complex issues to present unique solutions.

In this issue, Prof. Régis Lanneau writes in his authoritative manner on the aspect of regulatory competition in the post-globalisation period in the paper titled **Preconditions to Regulatory Competition**. A crucial observation in law and economics is the role played by legal systems in economic growth, resulting in legislators and policymakers putting their focus on making the legal system attractive to investment. Prof. Lanneau dispels this notion through extensive analysis of the pre-conditions to regulatory competition, showing that the cost of attracting scarce economic resources through favourable changes in the legal system have both financial, legal, and political costs. The problem of not weighing costs of regulatory competition is even more serious for developing countries, putting their constrained resources under stress. The paper also prescribes the role of law-takers, laying down that rationality and freedom must be maintained by law takers. In conclusion, the author suggests that a more quantitative approach is required to fully gauge the effect of legal systems and the competition between them.

Anagha MV in her paper titled "**An Economic Analysis of the Spread of Fake News"** examines the deep social problem of fake news through the lens of law and economics. The author explains how in the current 'Information Age', the spread of disinformation through

fake news results in a Pareto suboptimal transaction due to high social costs. However, as individuals do not internalise such costs themselves, they opt to continue transacting fake news. Coupled with the benefit of anonymity of fake news vendors, a lopsided transaction emerges with inefficient social outcomes. Arguing for a market intervention aiming to shift the burden of fake news on users, the author proposes to target the platforms on which such fake news is published. An intervention in the form of levy of a Pigouvian tax on such platforms would internalise the external costs and produce a deterrence effect. The author concludes by urging policymakers to act swiftly to curb the spread of fake news through the law and economics analysis.

Dr. Shivani Mohan and Dr. Manoranjan Kumar in their paper titled "**Economic Analysis of Liquor Prohibition in Bihar on the Efficiency Criteria**" assess the impact of the liquor ban imposed in the State of Bihar to ascertain the economic viability and the benefits it seeks to derive. The authors study the impact on revenue of the state after the ban, observing that the expenditure on education dropped and expenditure on healthcare was less than average of other states. An increase in the fiscal deficit of the states was noted in the period of five years after the ban. The authors also focus on the association between the liquor ban and the rate of crime, showcasing through statistical analysis that the loss of revenue and economic gains for the state outweighs the few positive outcomes of the ban. The authors conclude that the administrative and economic costs of enforcement are substantially above the social gains resulting from the prohibition, suggesting that social mobilisation and adequate funding must be provided to ensure efficient implementation of the aims of the liquor prohibition.

EDITORIAL BOARD OF THE GNLU JOURNAL OF LAW & ECONOMICS (VOLUME IV- ISSUE I)

TABLE OF CONTENTS

PRECONDITIONS TO REGULATORY COMPETITION

*Régis Lanneau**

ABSTRACT

Regulatory competition is often believed to be a hard fact of the post globalization era. Legal systems must be economically "attractive" – and thus law makers must work to achieve this purpose. However, this view – as simple and seductive as it is – is not sound. Indeed, a quick analysis of the preconditions to regulatory competition will show that far from being a brutal reality, it is quite reduced, even in the context of the European Union.

This article has two purposes. The first one is theoretical: what are the conditions required to enter regulatory competition in the real life? This question will lead to a new "understanding" of regulatory competition's problematics. For example, it will be made clear that the doing business approach is largely flawed. Indirectly this question will also lead to an inquiry into the interconnections that exist between legal system and the necessity to think about a new model (like coopetition). The second one is more practical. To what extent should law makers be focused on the attractiveness of their own legal system? Clearly, they will have to pay attention to this dimension, but their freedom in choosing a rule is wider than it seems under the regulatory competition's approach. Frequently paying attention only to the internal efficiency of their system is sufficient.

Keywords: regulatory competition, legal system, efficiency

* *Associate Professor, University of Paris Nanterre*

INTRODUCTION

Globalization – as a process that leads to an increase of links, integration and exchange between economies, culture, etc. – has changed the way we think about the law and moreoverthe way we think about the interconnections between legal systems. It would nowadays be foolish for law making powers to disregard the international legal environment when accomplishing their tasks or to adopt a "closed" view of regulation (restricted to the nation state). More than paying attention to what happens outside the realm of the nation state, it is often believed that globalization puts pressure on national legal systems; they now have to be economically "attractive" … and since the attractiveness is purely relative, a regulatory competition is thought to be at stake.

In the EU, Centros[1] and Uberseering[2] decisions paved the way to a regulatory competition of business forms and company law; often fiscal competition is denounced (regarding corporate tax, especially in Ireland). At a global level, the attractiveness of business law is supposed to be synthesized in doing business' rankings. It seems then that law making powers have no choice or limited choices when they regulate because of an "intense" regulatory competition. However, we should not forget that the possibility of a regulatory competition is, in part, framed by the law (freedom of movement in the EU for example, infra).

Regulatory competition – as a competition process between decentralized law-making entities to attract and retain scarce resources through the design of an attractive legal system– is not a new idea. Indeed, Charles Tiebout's article "A Pure Theory of Local Expenditure"[3] addressed – at least indirectly (if law is seen as a local public good) – this question in the mid 50's. In Tiebout's model – which is a static model –, local government competed to attract residents with a package of public services and taxes that tries to "match" residents' preferences; at the end of the process an efficient equilibrium is found in which diversity is still present (since preferences of residents are). This model, thus, does not directly address regulatory competition (especially in the real world since it is a "pure" theory) but it opened thepossibility and the relevance to inquire into such question with economic tools. Indeed, if law

[1] Centros Ltd. v. Erhvervs-og Selskabsstyrelsen, CC-212/97 (Denmark).

[2] Überseering BV v. Nordic Construction Company Baumanagement GmbH (NCC), C-208/00 (Germany).

[3] Charles Tiebout, *A Pure Theory of Legal Expenditures*, 64 J. POL. ECON., 416 (1956) (hereinafter Tiebout).

is seen as a public good supplied by law making powers – and surely it is –, it is possible to extend this model to regulatory competition and to say that suppliers will try to "please" residents in order to retain or attract some valuable "assets". If residents or market players have the same preferences, it is reasonable to assume that legal systems will converge.

A vast literature explores the probable consequences of regulatory competition. For some it will produce a race to the bottom, the famous Delaware effect[4]. Being attractive would then mean to free from constraints. For others this regulatory competition will lead to more efficiency, hence a race to the top[5]. If Delaware is so attractive, it is because its regulation is efficient. It is also possible to argue that regulatory competition will lead to a race to the bottom or a race to the top depending on the issue[6] or even that this is a meaningless debate[7].

My purpose in this paper is not to solve the debate over the consequences – I doubt that it is even possible – it is more modest. I would like to inquire into the preconditions to regulatory competition. That is, to what extent are these models relevant for the real world? To what extent is regulatory competition a force that drives law making powers? Indeed, too often this regulatory competition is assumed to be intense and is used to justify some legal reforms mostly in corporate and fiscal law. This problem could be easily explained: from economic models, it is easier to take the results without paying attention to the conditions that define its possible relevance in the real world (and sometimes, this leads to tragedies. Ricardo comparative advantages is surely archetypical of thetransposition of a model to the real worldwithout paying attention to its limitations). I would then like to highlight the limits of regulatory competition. This does not mean that there is "no" regulatory competition but that it is far more complex than it seems when we are leaving the world of models to the real world. My purpose is then both theoretical and practical. Theoretical since I will try to

[4]William Cary, 1974, *Federalism and Corporate Law: Reflections upon Delaware*, 83 YALE L.J., 663 (1974).

[5]Frank Easterbrook, *Manager's discretion and Investors' welfare: theory and evidence*, 9 DEL. J. CORP. L., 540 (1984); Daniel Fischel, *The "Race to the bottom" revisited: reflections on recent developments in delaware's corporation law*, 76 NORTHWESTERN UNIVERSITY LAW REVIEW, 913 (1982); Ralph Winter, *State law, shareholder protection, and the theory of the corporation*, 6 J. LEGAL STUD., 251 (1977) (hereinafter Winter).

[6]Lucien Bebchuk, *Federalism and the corporation: the desirable limits to state incorporation in corporate law*, 105 HARV. L. REV., 1435 (1992).

[7]Claudio Radaelli, *The Puzzle of regulatory competition*, 24 JOURNAL OF PUBLIC POLICY, 1 (2004) (hereinafter Radaelli).

identify these preconditions that are required for regulatory competition; Practical since from this identification it will be possible for law making powers to assess the possible consequences of their regulation. I will proceed as follow. First, I will try to identify the preconditions relatives to "law makers" (section 2), that is the supply side. I will show thattoo often the political dimension of law making is forgotten in regulatory competition modelsalthough it is definitional in the real world. I will also demonstrate that the domain of regulatory competition as conventionally understood, is quite restricted. Second, I will focus on the preconditions relatives to "law takers" (section 3), that is the demand side. I will show that more than far from perfect freedom of movement, regulatory competition approach overestimates the role of legal parameters in the choice of allocating scarce economic resources. In the conclusion, I will plead for a broader conception of regulatory competition or more precisely for integrating more complexity in the analysis, although it will also blur any predictions.

1. PRECONDITIONS RELATIVES TO "LAW MAKERS"

Regulatory competition assumes a lot regarding law makers. Not only should they have an interest in entering into regulatory competition (2.1), but they also need sufficient freedom in the design of law (2.2). These two preconditions are certainly unrealistic in the real world – for both economic and legal reasons – so that regulatory competition is not as simple and intense as it seems.

Of course, and this precondition does not need lots of comment, for regulatory competition to exist, it is necessary to have a diversity of law makers and thus a diversity of legal system. If we observe a perfect unity in legal systems, no regulatory competition could possibly emerge. Harmonization within the EU is thus a tool to reduce the scope of a possible regulatory competition between European nation states.

1.1. Law makers must have interests in entering regulatory competition

For regulatory competition to be fuel it is necessary that law makers adapt their law. This means that they must have an interest in doing this (it is not a mere "reaction"; in Tiebout's model, it was nevertheless the case.). This precondition might seem obvious. However, it leads to two remarks. First, if attracting and retaining scarce resources is certainly interesting,

the model does not explain what a scarce economic resource is (2.1.1). Thus, regulatory competition can be intense in some legal fields and quite reduced in others. Indeed, when regulatory competition is mentioned, it refers, in general, to commercial / corporate law and to fiscal law and it has not been observed outside of these fields.[8]

Even if law makers might have an interest in attracting and retaining scarce economicresources, they will not necessarily enter regulatory competition. Indeed, the cost of doing so must be lower than expected benefits (2.1.2).

2.1.1 Attracting yes but attracting what? The domain of regulatory competition

Regulatory competition could only appear if resources are sufficiently scarce. If it is not the case, it is obvious that there is no interest in trying to "attract" or retain them. Scarce is then relative to one specific country: a country that already has "enough" does not necessarily need to attract more and then enter a harsh regulatory competition. The more a country needs some of these scarce economic resources (the intensity of the need), the more it is expected that it will try to use its legal system to give good incentives.

What are these needs? In the literature, it generally refers to business and capital. The first is fundamental to reduce unemployment, to stimulate economic growth or to obtain more fiscal resources – that could be used to build new public services or to cut taxes. The second refers mainly to FDI (foreign direct investment) and their links to economic growth. FDI are for example of tremendous importance for developing countries. In both domains, it is believed that legal parameters are crucial (the validity of this belief will be examined in section 3.2), thus regulatory competition concerns especially the field of business law, investment law and fiscal law. Indirectly it concerns most of legal fields from contract law and property law (since contract and property are the cornerstones of business law) to procedure and labor law(doing business reports assess the ease of doing business along 9 criteria from construction permits to contract enforcement, getting credits and paying taxes.).

[8] DANIEL ESTY & DAMIEN GERADIN, (eds), REGULATORY COMPETITION AND ECONOMIC INTEGRATION: COMPARATIVE PERSPECTIVES, (Oxford University Press, Oxford 2001) (hereinafter ESTY & GERADIN).

Most of legal fields and not all of them! Thus, regulatory competition is supposedly not at stake when designing law in some domains, for example family law. The choice to implement gay marriage, a market for babies or to legalize surrogate motherhood is considered as a political choice without real impacts regarding scarce economic resources; It is then outside the realm of regulatory competition. It would be possible to advocate that these choices have a tremendous symbolic impact (prestige or disgust) that indirectly will benefit (or not) the country, but it is difficult to assess to what extent. Nevertheless, if a country believes that there is an interest for its legal system to appear "modern" some regulatory competition might occur – this competition is however quite different from "classic" regulatory competition since the sole purpose is to be the first whatever the efficiency of the reform. It would also be possible advocate that gay people are "scarce economic resources" or that opening a market for surrogate motherhood will raise GDP… butwould it be in a meaningful sense? Conventional wisdom seems to exclude this kind of reasoning when addressing the question of regulatory competition.

For some fields, it is harder to decide whether a regulatory competition is at stake. There is certainly a market for guns, drugs or prostitution and these activities generate a lot of money and jobs (but also some negative externalities). However, no countries seem to have entered regulatory competition for these fields. Regarding less controversial domains regulatory competition might appear in bioethics and biotechnologies in order, for example, to attract researchers and to promote patenting. Nonetheless, this kind of regulatory competition has not yet been observed or not yet been qualified as a form of regulatory competition.

To sum up, if regulatory competition is a fact, it seems that it does not concern all legal fields but, according to the literature, a relatively short sub-set: corporate and tax law. Theoretically it could be extended to other legal fields depending on what is perceived as a "scarceeconomic resource". What is perceived as such depends on the preferences of law makers.

2.1.2. The cost of "attracting" scarce economic resources must not be too high

Attracting scarce economic resources might be a goal for law makers. However, it is impossible not to consider the price of doing so. That is, law makers, as rational economic players, will engage themselves into costs and benefits analyses. These costs are not only financial costs, but they are also political costs (for these costs, see section 2.2.3).

Take the example of incorporation. It is often advance that regulatory competition for incorporation is at stake because corporation pays taxes (or at least some of them like franchise taxes or incorporation fees) to their state of incorporation. Indeed, Delaware earns several hundred millions of dollars in annual franchise taxes. It came thus at no surprise that Winter[9] argues that: "the purpose of corporate code revisions has been the attraction of charters to their state to produce significant tax revenues" or that Subramanian[10] claims that: "*States compete to have companies incorporated within their boundaries in order to maximize their corporate charter revenues*". Nevertheless, nowhere the idea that such revisions are costly is observed or that the competition strategy will be efficient. However, if revisions were costless, we should notice a clear tendency towards the elimination of inefficient rules. For example, the Section 630 of New York's Business Corporation Law[14] which states that the ten largest shareholders of a company are personally liable for wages and salaries payable to the company's employees is considered as inefficient but has not yet been repealed. (For a possible explanation see section 2.2.2.)

Kahan and Kamar (Kahan and Kamar, 2002)[11] find out that regulatory competition in corporate law is not significant among states in the USA. One key explanation is the presenceof economic entry barriers. They first highlight the fact that Delaware has a specialized corporate court. To compete then implies to create an equivalent court which is costly… without certainty that in the long run it will be a beneficial strategy. They also note that Delaware enjoys a well-developed corporate case law (which leads to less uncertainty in transactions). The more incorporation in Delaware, the more corporate case law could be developed, précised, and expected. To compete with Delaware means to also achieve such developed corporate case law: this imply first to "copy" Delaware law – assuming this is possible (The problems of legal transplants are well known [12]) – and then to build on its law

[9]Winter, *supra* note 5, at 255.

[10] Guhan Subramanian, *The disappearing Delaware effect*, HARVARD LAW AND ECONOMICS DISCUSSION PAPER, 391 109 (2002).

[14] § 630, New York Business Corporation Laws, 1961.

[11]Marcel Kahan, & Ehud Kamar, *The Myth of State Competition in Corporate law*, 55 STAN. L. REV., 679 (2002) (hereinafter Kahan & Kamar).

[17]ALAN WATSON, LEGAL TRANSPLANTS: AN APPROACH TO COMPARATIVE LAW, (University of Georgia Press, London 1993).

to achieve more efficiency. This strategy might lead to some benefits[13](Gelter emphasizes that "*Franchise tax revenues from small companies may be too insignificant for any state to develop incentives to seriously compete for charters, allowing courts more latitude to implement their own ideas in corporate law cases*". Which means that there are costs implied by this regulatory competition.) (if it succeeds in attracting incorporation) even if it imposes costs on residents who have invest in learning the corporate law of this specific state, but could also be a failure[14] (Kahan and Kamar (2002: p 726) nevertheless believed that: "*Even if only modestly successful, such a strategy could generate a positive return on the investment*". Gelter (Gelter 2008: p 10) notes that: "*Most of all, legal systems that have todeal with a larger number of cases are better positioned to reach a higher level of development more quickly*" pointing then to the influence of network externalities.). Indeed, it might merely emulate Delaware's corporate law without eating its market power. Note also that the fact that a specific law is well known might lead to lock-in situation due to network externalities where even if inefficient no one as any interest to switch to another legal system since it will imply costs of learning this new legal system. For example, the fact that US contract law is widely used does not mean that it is efficient, but merely that since it is widelyused, it is not possible not to use it. If this phenomenon works for Delaware, competing with Delaware will likely be a failure.

For developing countries, the problem is even harder since they often lack sufficient resources to implement the law that is believed to be attractive. For example, ensuring sufficient physical security or protecting goods is costly so that they will have to make some trade-offs because of their constraints in terms of resources. When law is completely absent and ineffective, entering regulatory competition is not a priority. It is necessary to remark thatregulatory competition does not concern law in books but law in action.

If we extend the idea of regulatory competition, non-legal systems and legal systems could compete. For example, the inefficiency of some legal rules could be reduced thanks to corruption (if corruption helps to accelerate one procedure and leads to sufficient "certainty" in its results): if it takes 1 year to obtain a construction permits without corruption and 1

[13]Martin Gelter, *The Structure of regulatory competition in European corporate law*, HARVARD DISCUSSION PAPER 20, 29 (2008).

[14] Kahan & Kamar, *supra* note 16, at 726

month with corruption (which correspond to a reasonable amount of money); the legal system plus corruption might appear, for some, efficient. In that case, there would be no incentives to adapt the official legal system… and maybe only an incentive to adapt the "non-legal" part of the broad legal system.

Entering regulatory competition is not costless so that if expected benefits are less than expected costs, law makers will not even try to compete. Among these costs are costs of learning new law and costs related to legal certainty (that is not achieved during the process of reforming the legal system).

1.2. *Law makers must have enough freedom to legislate as they please*

If law makers have an interest in entering regulatory competition, for them to be efficient sufficient freedom is required (in the words of Easterbrook[15] "*jurisdictions can select any set of laws they desire*".); indeed, in the regulatory competition approach law makers are like "entrepreneurs" that try to offer the best product to their customers (Romano, 1985). This implies first that law makers have a real power in designing the law (2.2.1); a power without legal (2.2.2) or political (2.2.3) constraints. Of course, these preconditions are rarely met. Taking them into account will then lead to more complexity when addressing regulatory competition. It will also be clear that regulatory competition cannot be a "description" of some interaction between legal systems.

1.2.1. Law is a product of law makers

This precondition might appear as a tautology: if law is designed by law makers, it is a product of law makers. Nevertheless, it is necessary to push the inquiry a little further since regulatory competition rests on a certain idea of the law.

First, it assumes that law can be built. In modern legal systems it is certainly the case at the level of legal proposition because of constitutional rules that set the condition under which a

[15] Frank Easterbrook, *Manager's discretion and Investors' welfare: theory and evidenc*e, 9 DEL. J. CORP. L., 540 (1984) (hereinafter Easterbrook).

text becomes a law. Moreover, it will be easy to identify legal makers and to visualize their incentives. But for legal systems that rest on tradition regulatory competition does not make sense… since law is not something that is consciously built but something that is "here" and that evolve with society and not according to the will power of some identified agents.

Second, even if law could be consciously built, regulatory competition implies that law is seen as merely instrumental. Tamanaha[16] notes that: *"[a]n instrumental view of law is so taken for granted today that it rarely evokes comment, but in the 1960s and 1970s its novelty in legal education was recognized and prompted expressions of concern*". Instrumentalism means, crudely, that law is trying to promote something outside itself, in general social purposes; a stronger definition of instrumentalism adds the idea that these social purposes are "deliberately" targeted. It is of course implicit in the idea of regulatory competition since law is used to "attract" or retain scarce economic resources. Without this instrumental view of law, law makers cannot enter into regulatory competition. Indeed, if the content of law is believed to be immanent or objectively determined, there are no choices in designing the law… so no possibility to compete since law is not a "product".

Third, for regulatory competition to have a meaning, it is necessary that the legal norms that are enacted are effective. Indeed, what matters for businessmen and investor is what happens, not what happens in legal books. Two implications could be derived from this idea. First, legal rules must be "stronger" than social norms that operate in the same domain. If not, regulatory competition is merely virtual without any consequences in the realm of facts. Second, legal rules must be applied as enacted by judges. This means that their power of interpretation is reduced to a minimum; thus, a legal norm could simply be transplanted from one legal system to another with the same consequences (of course, this is far from being true). If judges could really interpret the law, it is the combination of judges and legislators that should be considered when we try to assess the attractiveness of a legal system… then analyses are of course far more complex than the existing literature that focuses on announced law.

It could be added that regulatory competition seems to restrict itself to some specific domains of law, without really considering the fact that law is a system of norms and not a simple set

[16] TAMANAHA, LAW AS A MEANS TO AN END, (Cambridge University Press, Cambridge 2006).

of norms. Thus, it is the entire system that matters and not one specific norm within the system.

For regulatory competition to take place, it is necessary that law makers have the possibility to frame the law. It is then their product which is perceived as instrumental and sufficiently powerful to lead to changes.

1.2.2. There are no legal constraints on designing rules

Assuming that law makers are "free to choose" means that they didn't have any constraints in accomplishing their task. Among these constraints are legal constraints that are far more powerful than assumed in regulatory competition's models. In framing the law, law makers are facing constraints from the inside (constitutional law for example) and from the outside (European Union law or international law) … because law is a hierarchical system of norms – an idea that generally does not appear in the literature relative to regulatory competition.

Constitutional constraints are numerous in reality. For example, sex equality is recognized in the French constitution and it may lead to inefficiencies (when for example sex is a good proxy to assess the risk in some activities, like driving). Striking or human dignity are also recognized as constitutional rights. Law makers should then abide by these constitutional norms – at least if the constitution could be used in front of court(s). They might also try to change constitutional rules in order then to adapt some laws but costs of so doing are often heavy. Nevertheless, lots of constitutional rules try to ensure sufficient freedom for economic agents, and thus limit the possibility of inefficient regulation.

International, federal, and European laws are also constraints in framing legal rules… because law makers are not entirely free to select any set of laws. The European conventionof human rights, for example, clearly puts limits in framing laws. Value added tax harmonization in the European Union (2010/112/EC directive) also restrict regulatory competition: standard VAT should be at least 15% and reduced rates at least 5%; standard rules also apply regarding who and how a person is charged or how to deal with imports and exports. Rules against state aids, entry barriers and so forth also put limits of the set of law

that could be selected by law makers. WTO laws are doing the same. International convention relative to the environment, labor or human rights constitutes also relative limitsto the set of rules that could be selected by law makers.

These legal constraints should not then be disregarded – or constraints believed to be inefficient – when we are addressing the question of the domain of regulatory competition. Indeed, they are shaping its domain. It is for example obvious that harmonization is a tool to stop or reduce regulatory competition on one specific question.

1.2.3. There are no political constraints on designing rules

What is most problematic with regulatory competition approaches is that they did not sufficiently consider the fact that law is built within a political context. If this context is taken seriously pressure on law makers can come from the inside and not only the outside of the legal system (as regulatory competition assumes).

The idea is simple and derives from public choice literature. Law makers are under the pressure of voters and lobbies since they want to be reelected. If these parameters areconsidered, incentives to attract capital and corporations are necessarily reduced. Take for example fiscal competition. It is well known that this competition will lead to reduce taxes onmobile fiscal substance that could be compensated with high taxes on less mobile fiscal substance (labor and consumption). However, the increase in labor and consumption taxes will impact voters far more than the decrease in corporate and investment taxes. Thus, law makers could hesitate to implement this strategy since it will be harder for them earn a new mandate. This does not mean that they should completely disregard the attractiveness of their tax law for mobile fiscal substance since it will have an impact on the level of employment inthe country… which is something that is valued by voters [17].

This line could also explain the enactment of the "seven sisters act" in New Jersey which provoke a massive outflow of incorporation for this state. From an economic point of view, this act was a disaster… but for political reasons it has been enacted and is now difficult to revoke. The same could be said about section 630 of New York's business corporation code.

[17] Régis Lanneau, *La Concurrence Fiscale, Revue de gestion et finances publiques*, 918 (2011).

Because of the opposition of organized labor, this strong deterrent to incorporation in New York is still in force. This explanation could also be used to explain specific high-income taxes (like the former ISF in France).

As Kahan and Kamar[18] summarize "*Regulators will be influenced by political factors which may induce them not to compete in the first place or affect the way they compete*" and these political factors are of disproportionate importance compared to economic incentives (Swank, 2002: p 274)[19]. Thus, the responsiveness of law makers to regulatory competition willdepends on voters' preferences. Of course, if the system is nondemocratic, law makers are farfreer to choose their own rules.

In this section, we inquired into preconditions to regulatory competition relative to law makers. It clearly appears that what is assumed in economic models is far from what is realized in the real life. For example, law makers are in a network of constraints that limits their choice in the set of rules they can enact; they are not merely reacting to the preferences of corporation and investors. Moreover, the costs of adapting a legal system are often disregarded in regulatory competition's model. This, of course, limits their validity. There certainly is a form of regulatory competition in the real world but this form is certainly more complex than what is assumed in economic models. What is true for the supply side is also true for the demand side.

2. PRECONDITIONS RELATIVES TO "LAW TAKERS"

Law takers' threat of exit is what put pressure on law makers to adapt their legal systems. This implies that law takers have the possibility to react to legal incentives to maximize their own utility (This was indeed the second assumption set in Tiebout's model (Tiebout, 1956: p 419): "*Consumer-voters are assumed to have full knowledge of differences among revenue and expenditure patterns and to react to these differences*".)[20] (3.1) which is not always the

[18] Kahan & Kamar, *supra* note 16, at 748.

[19] DUANE SWANK, GLOBAL CAPITAL, POLITICAL INSTITUTIONS, AND POLICY CHANGE IN DEVELOPED WELFARE STATES, (Cambridge University Press, Cambridge 2002).

[20] Tiebout, *supra* note 3, at 419.

case, and which requires the recognition of freedom of movement at a state level. Moreover, regulatory competition's approaches assume that the normative environment is of a particular value for law takers (3.2). However, it will be shown that the choice to invest or to reside in one country does not only depend on legal parameters. Thus, the crude conception of regulatory competition could only be relevant when two countries are relatively identical except for the legal system.

2.1. *Law takers must have the possibility to react to legal incentives*

For regulatory competition to work, law takers should have the possibility to exit which means that sufficient freedom of movement is not only recognized but also a reality (3.1.2). Italso implies that law takers are behaving like rational informed economic agents (3.1.1) which, in the real life, is far from being true because of the costs of doing so (In Tiebout's model[21] it is assumed that "*Consumer-voters are fully mobile and will move to that community where their preference patterns, which are set, are best satisfied*" which means that there is not costs linked with reallocation of resources; the assumption that all person are living of dividend income strengthen the "no cost of moving" idea. This condition also appears in Easterbrook[26] who used the idea of "perfect mobility". Once again costs are not taken into account.). Indeed, when unsatisfied by a legal system, they will not necessarily choose the exit option but also voice and loyalty options (Hirschman, 1970)[22]. Moreover, inherent costs implied by moving resources across jurisdiction lead to a threshold approach:in that case the exit option

2.1.1. Law takers must be rational and informed

The first assumption which is classic in economic models is that law takers are rational and try to maximize their utility. Since the legal environment might impact their utility (which is clear concerning tax law for example), they will "react" to opportunities. Other things being equal, they will choose to invest or to develop their activity in the friendliest legal system (It should nevertheless be remembered that sometimes the geographical location has no impact:

[21] Tiebout, *supra* note 3, at 419.
[26] Easterbrook, *supra* note 19, at 34.
[22] HIRSCHMAN, EXIT, VOICE AND LOYALTY, (Harvard University Press, Cambridge (MA) 1970).

for example, in product safety standards (if you want to sell in the US or in the EU, you have to abide by these standards)). By saying this, we are assuming a lot.

First, we are assuming that people have sufficient information so that their choices will reflect their preferences. Without this information, it is impossible for them to compare between two legal systems or to assess costs and benefits that might derive from a change in location of their activities or investment – especially since what matters is not what is announced but what is working (infra, section 3.2.1). Obviously, in the real life, it is not the case: corporations do not have a perfect knowledge of all legal systems across the world and their strategy will not only be focus of legal parameters (infra, section 3.2.2).

Second, it seems that most models assume that rational players only have two options: to leave or to stay. As Friedman put it: "*you may decide to live in one community rather than another partly on the basis of the kind of services its government offers. If it engages in activities you object to or are unwilling to pay for, and these more than balance the activities you favor and are willing to pay for, you can vote with your feet by moving elsewhere*"[23]. However, as Hirschman put it, people may try to change the system if it did not match their preferences: they will complaint or protest… often before choosing the exit option; the pressure to adapt the legal system comes from the inside of the legal system and is not necessarily linked to regulatory competition (Note also that, for Hirschman, the greater the availability to exit, the less the voice option is chosen). This political option (voice) – since it is more political than economical – is often forgot in "pure theory" models that only concentrate on very simple reaction of economic agents. A loyalty phenomenon could also appear in which a preference for not leaving the country is so important that some clear opportunities are not taken. For example, "nationalists" will choose to invest in their country whatever the legal system. It is of course rational regarding their preferences.

Third, it is necessary to deconstruct the "other things being equal". It is obvious that other things being equal, a corporation will choose a location where it will be less taxed. However, these taxes have a purpose: to build public services, skilled labor force and infrastructures that are of some benefits for corporations. Thus, it is a combination of costs (taxes) and

[23]MILTON FRIEDMAN, FREE TO CHOOSE, (Harcourt, New York 1980)

benefits (public services) that is taken into account and since preferences are subjective and not homogenous, it is difficult to assess the consequences of a modification in the legal environment (Often homogeneous preferences are assumed in economic models… because it is easier to deal with such preferences). Moreover, the other things being equal mean that there are no costs in moving from one jurisdiction to another. In Tiebout's model, it is for example assumed that people are living on dividend income so that job opportunities will not be a relevant parameter. If costs are taken into account, some threshold could appear: until itis reached, people will stay in their location even if there are some opportunities to move (but these opportunities are not sufficient to lead to the exit choice). Further will be said on this in the next section. As will be developed in section 3.2, choices to invest in one country or to develop a business do not only depend on the legal system but on other parameters that are disregarded in regulatory competition approaches. When fully considered, how regulatory competition is working appears far more complex than what has been developed until now. Finally, all things being equal, assumptions might blur the fact that what count is the entire legal system and not one specific rule in it. To quote Radaelli[24]: "*it is the whole policy system (rules, enforcement, institutional performance, and nexuses of comparative advantage) that matters*".

The apparent classicism of "rationality" assumption should not dupe law makers and scholars. It assumes a lot in the realm of models and thus for the real world. The ceteris paribus clause that is implicit in the model should also be deconstruct to earn a better understanding of how regulatory competition is working.

2.1.2. Law takers must have sufficient freedom of movement

Even if an opportunity is identified, it does not mean that law takers will seize it. Indeed, reality departs a lot from pure theory approaches. Empirical evidence shows that capital is relatively immobile (Gordon and Bovenberg, 1996)[25].

For the exit option to be effective, it is necessary first that a legal right of freedom of

[24] Radaelli, *supra* note 7, at 15.

[25] Roger Gordon & Lans Bovenberg, *Why is Capital So Immobile Internationally?: Possible Explanations and Implications for Capital Income Taxation*, 86 AM. ECON. REV., 1057 (1996).

movement (entry and exit) is recognized for both persons and resources. In the European Union or in the United States such rights are recognized for their citizens. However, for foreigners, it is not possible to emigrate in the US or in some European countries to take job opportunities or to create a corporation (you need a "green card" if you want to work freely inthe US). Ideally this freedom of movement should be complemented with a nondiscrimination rule. Indeed, if it is possible to discriminate regarding your citizenship, the exit option will be less attractive. This nondiscrimination rule exists in the European Union. Regarding freedom of movement for workers, article 45 of TFEU states that: "Freedom of movement for workers shall be secured within the Community. Such freedom of movement shall entail the abolition of any discrimination based on nationality between workers of the Member States as regards employment, remuneration and other conditions of work andemployment". It is however possible to discriminate between EU citizens and non-EU citizens (so EU is not as attractive as it could be for foreigners). It is remarkable that regulatory competition could then only occur thanks to legal rules!

These rules can also constraint freedom of movement. For example, under US corporate law, reincorporation in other states necessitate a proposal by the board of directors and a shareholder vote. The necessity of this proposal requires that there are some advantages for the board of directors[26]. Thus, the institutional structure of the firm should be considered to qualify strategy of reincorporation. More generally, developing a business in one country implies some administrative fees.

Freedom of movement also implies that people have sufficient resources to move. If not, it will be impossible for them to choose a new set of law – in which case their only option is to protest against some legal rules. Undeniably moving is costly and the exit option is only opened to rich people or to big corporation. This entails that people are not seizing all available opportunities because of their costs. These costs are not only monetary costs but also non-monetary costs. For example, you could believe that leaving your country would be of some interest for you; however, leaving your country is leaving your culture, your language (so you will have to learn a new one), your job, your friends and family and also

[26] Lucien Bebchuk, *Federalism and the corporation: the desirable limits to state incorporation in corporate law,* 105 HARV. L. REV. 1435,1460 (1992).

your habits. These costs are rarely considered in regulatory competition which is oftenrestricted to corporation (for which such costs could be neglected).

Assuming that law takers could choose the set of law that they prefer by moving from one jurisdiction to another is a strong assumption. It is certainly the case that if all things are equal economic agents will favor the legal system and the jurisdiction that they prefer. However, saying this is not saying much without trying to figure out what lies behind the "all things being equal".

2.2. *The normative environment must be of a special importance for law takers*

Regulatory competition implies that the normative environment is of a specific value for law takers. However, the legal environment cannot really be understood without considering the normative environment at large (3.2.1). Indeed, if legal norms evolve in a dialogue with social norms, focusing only to legal norms would be too restrictive. Moreover, it seems far fetch to believe that the allocation of scarce economic resources will depend only on legal parameters (3.2.2). Far too much is disregarded. For example, the attraction power of China cannot be explained by the attractiveness of its legal system! Thus, regulatory competition might be a relevant paradigm to inquire into allocation of resources' decisions, but it is only and only one parameter.

2.2.1. Regulatory competition focuses only on state law and not on the working of the regulatory system

Regulatory competition model's only focus on the announced law. This approach is obviously restricted. Indeed, the dynamic of the law is not sufficiently considered; the institutional environment is often neglected; and social norms are generally disregarded. However, to figure out how a legal system is actually working these parameters have to be considered.

What matters in regulatory competition's models are the content of law and not the dynamic of its evolution and its influence on the attractiveness of the legal system. Besides, it has been pointed that legal certainty and predictability are parameters of tremendous importance for FDI. These parameters were not seen in economic models since perfect mobility was

assumed: the possibility to reallocate from one jurisdiction to another was supposed to be costless. If there is a cost in reallocating, then economic agents should benefit from sufficient predictability to avoid "hold up" problems. Indeed, investing or doing business in one country implies costs that will be compensate by benefits through time. If the period of compensation is not very short, the strategy necessitates sufficient predictability in the evolution of the legal system.

Regulatory competition's models also assume that the legal system that is announced is the actual regulatory system. Certainly, what matters for economic agents is the regulatorysystem that is working not the regulatory system that exists in books. This picture cannot be drawn without an analysis of the institutional environment. In general, economic models assume effective legal institutions: judges are applying the law in a sufficient predictableway; the legal system is sufficiently powerful; legislators are assumed to look for efficient regulation, etc… If this might be true for developed countries, it is certainly less evident for developing countries. Since what matters for economic agents is the actual working of the regulatory system, announced law should not focus all attention. Indeed, when the law is not effective, social norms and parallel legal systems could develop. In that case the knowledgeof these alternative regulatory systems will be fundamental since they will define the regulatory environment. If legal certainty is not achieved through the official legal system butcould be achieve through a parallel regulatory system (social norms or corruption), these alternatives systems have to enter into analyses.

Moreover, the actual working of a legal system is enlightened by social norms. Comparing product responsibility in France and in the US is certainly of some interest but comparing them without considering the fact that litigation is far less exercised in France than in the US is missing something. The same is true for contract law and labor contract. It could be the case that contract enforcement might appear as defective. However, if contract default is rare because of a social norm, the fact that contract enforcement by legal authorities is deficient is not a real problem. Regarding labor contract, everything must be précised in a US labor contract but in a French labor contract a lot is presumed so that labor contracts are very short. More generally, social norms will impact how judges are applying the law; neglecting to lookat this kind of phenomena will reduce our understanding of legal opportunities. Note that this

is one of the reasons why legal transplants cannot be perfectly achieved.

What matter for economic agent is the real working of a regulatory system and not the mere knowledge of the theoretical legal system. If this is true, it is necessary to broaden our approach of regulatory competition to legal and non-legal regulations.

2.2.2. Regulatory competition exaggerates the role of legal parameters for law takers

Because of the "all things being equal" implicit assumption, regulatory competition's models presume that firms decide essentially on legal consideration. Non legal aspects are simply disregarded.

Even if law is a relevant parameter for decision making, it is only one parameter and many more is contemplated by corporations; geographical location, risk diversification, quality of the workforce, expected growth of a country, quality of infrastructures, political stability, possibility to bribe (since it impacts the announced legal system), inputs access, markets access, signal logic etc… constitute obvious relevant parameters. For example, if you are in the fashion industry, you must have shops (and thus invest) in Paris, Milan, New York, Tokyo or Beijing whatever the legal system; moreover, regulatory competition between these cities will not be efficient since you have to be in all of them and not one in particular. You might also consider that a specific "made in" will be a signal that is valued by consumers. If you are a watchmaker, Swiss made is of some value; if you are a designer "made in Italy" or "made in France" is also valued. If you are working in the oil extraction industry, you must be present in oil producing countries and ideally, you want to be present in every oilproducing countries. If you are dealing diamonds, you must be present in some African countries. If you want to have access to the Chinese market, it will be easier to have a corporation in China. If you are in the defense industry, since the US market is the largest and since there is a tendency to favor US corporations, you must be implanted in the US.

Thus, the decision to reallocate scarce economic resources from one jurisdiction to another is not a signal that the legal system from which exit takes place is inefficient. It would be then wrong to draw conclusion relative to a legal system only based on "exits". Exits are signs that something is "wrong" but not that the legal system is inefficient (except if decisions are only based on its attractiveness). Indeed, trade-offs are possible between attractiveness of the legal

system and other relevant parameters. For example, in fiscal competition, low tax rate could have been implemented to "compensate" an unfavorable geographical location (ex: Ireland) or might simply indicate that there are poor public services and infrastructures (thus there is more in fiscal competition than comparing fiscal law). Access to inputs might also be a reason to invest in a country which legal system is believed to be inefficient.

Sometimes, law is simply disregarded. For example, Levinson[27] concludes his article (Levinson, 1996) is arguing that: "environmental regulations do not deter investment to any statistically or economically significant degree […] The literature as a whole presents fairly compelling evidence across a broad range of industries, time periods, and econometric specifications, that regulations do not matter to site choice".

Decision making relative to the allocation of resources to one jurisdiction, or another are far more complex than what is assumed in regulatory competition models because the legal system is not the only this that enter into decision making by economic agents. If this complexity is taken seriously, the impact of legal reforms on its attractiveness cannot be assess theoretically but requires empirical data.

3. CONCLUSION

It clearly appears in this paper that regulatory competition as a fact is not as brutish as it is too often said and believed. Indeed, preconditions to its occurrence are, to say the least, very restrictive. It does not mean that the international environment could be completely disregarded by law makers but that the actual paradigm of regulatory competition is not adequate to figure out the links and interactions between legal systems.

More complexity and empirical data are required to really grasp the interaction between legal systems that is supposed to be driven by some sort of competition (and this line of

[27] Arik Levinson, *Environmental regulation and industry location: international and domestic evidence* (1996), in J. BHAGWATI AND R. HUDEC (eds), FAIR TRADE AND HARMONIZATION: PRE- REQUISITES FOR FREE TRADE?, (MIT Press, Cambridge (MA)).

explanation is not the only one; coopetition (Esty and Geradin, 2001: 30)[28] and emulation (Larouche, 2012)[29] might also be used). Of course, this complexity will be more difficult to handle but I think that Hayek[30] (Hayek, 1974: 26 and 29) was right when he said that: "the social sciences… have to deal with structures of essential complexity, i.e. with structures whose characteristic properties can be exhibited only by models made up of relatively large numbers of variables". "I confess that I prefer true but imperfect knowledge, even if it leaves much undetermined and unpredictable, to a pretense of exact knowledge that is likely to be false… Seemingly simple but false theories may… have grave consequences".

4. REFERENCES

Bebchuk, Lucien, 1992, Federalism and the corporation: the desirable limits to state incorporation in corporate law, *Harvard Law Review,* vol 105: 1435

Cary, William, 1974, Federalism and Corporate Law: Reflections upon Delaware, *Yale Law Journal*, vol 83: 663

Easterbrook, Frank, 1983, Antitrust and the economics of federalism, *Journal of Law and Economics*, vol 26: 23

Easterbrook, Frank, 1984, Manager's discretion and Investors' welfare: theory and evidence, *Delaware Journal of Corporate Law*, vol 9: 540

Esty, Daniel and Geradin, Damien (eds), 2001, *Regulatory competition and economic integration: comparative perspectives*, Oxford University Press, Oxford

Fischel, Daniel, 1982, The "Race to the bottom" revisited: reflections on recent developments in delaware's corporation law, *Northwestern University Law Review*, vol 76: 913

Friedman, Milton, 1980, *Free to Choose*, Harcourt, New York

Gelter, Martin, 2008, The Structure of regulatory competition in European corporate law, *Harvard discussion paper n°20*

Gordon, Roger and Bovenberg, Lans, 1996, Why is Capital So Immobile Internationally? Possible Explanations and Implications for Capital Income Taxation, *American Economic*

[28] ESTY & GERADIN, *supra* note 10, at 30

[29] Pierre Larouche, *Legal emulation between regulatory competition and comparative law*, TILEC DISCUSSION PAPER, DP 2012-017 (2012).

[30] HAYEK, LAW, LEGISLATION AND LIBERTY, (Chicago University Press, Chicago 1974).

Review, vol 86: 1057

Hayek, 1974, *Law, Legislation and Liberty*, Chicago University Press, Chicago Hirschman, 1970, *Exit, Voice and Loyalty*, Harvard University Press, Cambridge (MA)

Kahan, Marcel and Kamar, Ehud, 2002, The Myth of State Competition in Corporate law, *Stanford Law Review*, vol 55: 679

Lanneau, Régis, 2011, La Concurrence Fiscale, *Revue de gestion et finances publiques*, n°12 : 918

Larouche, Pierre, 2012, Legal emulation between regulatory competition and comparative law, *Tilec Discussion paper*, DP 2012-017

Levinson, Arik, 1996, Environmental regulation and industry location: international and domestic evidence, in J. Bhagwati and R. Hudec (eds), *Fair trade and harmonization: pre-requisites for free trade?* MIT Press, Cambridge (MA)

Radaelli, Claudio, 2004, The Puzzle of regulatory competition, *Journal of Public Policy*, vol 24: 1

Romano, Roberta, 1985, Law as a Product: some pieces of the incorporation puzzle, *Journal of Law, Economics and Organizations*, vol 1: 225

Subramanian, Guhan, 2002, The disappearing Delaware effect, *Harvard Law and Economics discussion paper* n°391

Swank, Duane, 2002, *Global Capital, Political Institutions, and Policy Change in Developed Welfare States*, Cambridge University Press, Cambridge

Tamanaha, 2006, *Law as a means to an end*, Cambridge University Press, Cambridge Tiebout, Charles, 1956, A Pure Theory of Legal Expenditures, *Journal of Political Economy*, vol 64: 416

Watson, Alan, 1993, *Legal Transplants: An Approach to Comparative Law*, University of Georgia Press, London

Winter, Ralph, 1977, State law, shareholder protection, and the theory of the corporation, *Journal of legal studies*, vol 6: 251

AN ECONOMIC ANALYSIS OF THE SPREAD OF FAKE NEWS

*Anagha MV**

ABSTRACT

In an information rich world, a wealth of information necessarily implies a dearth of what information consumes i.e., the attention of its recipients. This has given rise to the attention economy, and has had the unintended side effect of making the spread of disinformation and fake news profitable for its creators. The socially undesirable consequences arising out of disinformation are externalities which cause transactions of fake news to be less than Pareto efficient. However, acting in a purely self-interested manner, individuals will always choose to transact in fake news since they do not directly bear the costs of these externalities. An intervention in the market is thus warranted to internalise the externalities and make the transaction socially efficient. This paper seeks to examine the way in which fake news operates within the attention economy and suggest possible policy interventions on the part of the government to reduce the negative effect of these externalities.

Keywords: Fake News, Attention Economy, Externalities, Pigovioan Tax.

***** *Student, Email: anaghamv30@gmail.com*

1. INTRODUCTION

The World Economic Forum has recently ranked the spread of disinformation and fake news as one among the world's top global risks. While fake news is not a recent occurrence, modern technology has facilitated the creation and spread of disinformation at unprecedented and alarming rates. This has had a huge impact on the global economy, affecting everything from stock prices to media, election campaigns, financial information and healthcare. Contemporary fake news has also led to widespread social and democratic problems, bringing to the fore the need for immediate government intervention.

In this paper, the researcher attempts to analyse the problem of fake news through an economic lens, by discussing the competing interests of the parties involved in the transaction of fake news and the effect that it has had on social welfare. The main issue that is sought to be addressed is whether self-interested behaviour of the parties engaging with fake news will lead to a socially beneficial outcome. It is concluded that the social harm caused due to the spread of disinformation is an externality that is not captured in the pricing of fake news, and thus warrants government intervention.

In the first part of the paper, the costs and benefits accruing to each party in a transaction of fake news has been discussed and the perils of self-serving behaviour on the part of these parties have been highlighted. The second part deals with some of the common arguments against allowing government intervention in fake news and outlines some of the legal constraints that policy makers have to encounter while legislating on the same. The final part of the paper puts forth a suggestion to internalize the social cost of fake news and incentivize parties to acknowledge and remedy the destructive societal impact of their actions.

2. THE ATTENTION ECONOMY: WHO GAINS AND WHO LOSES?

In the year 1971, Nobel Prize Laureate Herbert Simon put forth an idea that has changed the way information and its consumption has been viewed over the past few decades. He proposed that in an information rich world, the wealth of information necessarily implies a dearth of what information consumes i.e., the attention of its recipients. The fact that all information

requires attention in order to amount to something meaningful makes attention a valuable resource.[1]

Being a resource, attention is bound by the law of scarcity, in the same way that all other resources are. The law of scarcity states that individuals must choose among competing goods since their resources are scarce, relative to their wants.[2] All human beings have a limited amount of attention that they can expend and paying attention to one thing excludes other things from our attention. While human attention has always been limited and scarce, the problem is exacerbated in the present day due to technological advancements which have put overwhelming amounts of information at our fingertips.[3] As more and more information is readily available, the harder it becomes for individuals to choose among the various things competing for their attention.

Texting while driving, playing a game while crossing the road or tweeting while at dinner with family are all daily examples of how individuals find it difficult to allocate their attention efficiently. Similarly, with information, selecting what pieces of information to pay attention to is of crucial importance. The 'attention economy' allows for creators and disseminators of information or 'content' to monetize the attention that consumers pay to them.[4] Thus, the attention economy is driven by competitors seeking to put forth the most attention-grabbing content.

It is in this context that one should understand the role that disinformation plays within the attention economy. Disinformation, more commonly referred to as fake news, is the deliberate creation and sharing of false or manipulated information intended to deceive and mislead the consumers, either for the purposes of causing harm or for political, personal or financial gain.[5] This type of news is designed to grab the attention of the audience and is usually related to the contentious political and social issues that people tend to engage with most often. Disinformation imposes huge social costs and affects public opinion in a number of ways.[6]

[1] HENDRICKS VK AND VESTERGAARD M, REALITY LOST (Springer 2018). (hereinafter "HENDRICKS AND VESTERGAARD")
[2] JOHN CIRACE, LAW, ECONOMICS AND GAME THEORY 11 (Lexington Books 2018). (hereinafter "CIRACE")
[3] Ally Mintzer, *Paying Attention: The Attention Economy*, BERKLEY ECON. REV. (Jan. 15, 2021), https://econreview.berkeley.edu/paying-attention-the-attention-economy/.
[4] *Id.*
[5] *The Economic Cost of Bad Actors on the Internet*, UNIVERSITY OF BALTIMORE (Jan. 15, 2021) https://s3.amazonaws.com/media.mediapost.com/uploads/EconomicCostOfFakeNews.pdf.
[6] Camille D Ryan, Andrew J Schaul, Ryan Bunter and John T Swarthout, *Monetizing disinformation in the attention economy: The case of genetically modified organisms (GMO's)* 38 EUR. MANAG. J. 7 (2019).

However, before analysing the costs of disinformation, it is important to understand the actors involved in a transaction of fake news, and the incentives of each party to take part in the transaction.

2.1. The Vendors:

The vendors or 'creators' of fake news engage in the business of spreading disinformation for two reasons. The first incentive is the monetary benefit that they derive from it. Publishers of fake news make use of online Ad services to make a few cents every time a reader visits and views an advertisement on their website. In order to grab the most amount of attention, creators find trending ideas or events and distort or exaggerate it in order to get persons to click on the news item.[7] For example, during the 2016 presidential election in the United States, it has been revealed that content creators in Macedonia earned up to $10,000 a month by putting out fake news about the presidential candidates.[8]

Apart from this, vendors may also create fake news with social or political motives. These pieces are generally aimed at influencing ideologies and encouraging a certain type of public behaviour. Monetary compensations play a very small role in these types of situations where disinformation is used to further one's own interests and usually impose huge social costs.[9] Coming back to our earlier example of the 2016 elections, Russia has been accused of deliberately spreading politically damaging falsities and propaganda in order to tip the electoral polls in favour of one candidate.[10]

In economic terms, fraudsters will engage in the creation of fake news if:

$$M_b + P_b > I_c + O_c + P_c + (C_c * \pi_{con})$$

where, M_b is the monetary benefit from creating fake news; P_b is the psychological benefit of engaging in fake news; I_c is the investment cost; O_c is the opportunity cost of engaging in fake

(hereinafter "RYAN, SCHAUL AND BUNTER")

[7] Andrew Higgins, Mike McIntire and Gabriel J, *Inside a Fake News Sausage Factory: 'This is All About Income'*, THE NEW YORK TIMES (Jan. 15, 2021) https://www.nytimes.com/2016/11/25/world/27acedo/fake-news-donaldtrump-hillary-clinton-georgia.html.

[8] Alexander Smith and Valdimir Banic, *Fake News: How a Partying Macedonian Teen Earns Thousands Publishing Lies*, NBC NEWS (Jan. 15, 2021) https://www.nbcnews.com/news/world/fake-news-how-partying 27acedonian-teen-earns-thousands-publishing-lies-n692451. (hereinafter "SMITH AND BANIC")

[9] Pedro Baptista and Anabela Gradim, *Understanding Fake News Consumption: A review* 9 (185) MDPI JOURNAL OF SOCIAL SCIENCES 7 (2020).

[10] Abigail Abrams, *Here's What we Know so far About Russia's 2016 Meddling*, TIME (Jan. 16, 2021) https://time.com/5565991/russia-influence-2016-election/.

news; P_c is the psychological cost of engaging in fraud; C_c is the monetary cost of conviction and π_{con} is the probability of conviction.[11]

Using this formula, it can be seen how the creation of fake news will almost always be beneficial, regardless of the incentives behind it. In terms of investments costs, modern technology has eliminated all barriers to entry and the marginal cost of producing a piece of disinformation is negligible. Copying or slightly modifying content in order to make it more attention-worthy requires minimal time and effort.[12]

The opportunity cost of fake news also tends to be low, since the next best allocation of resources for most of the content creators is not nearly as profitable.[13] For instance, average monthly wages in Macedonia was a mere $400, which hardly compares to the money one can make by writing fake news.[14] Lastly, given the shield of anonymity that the internet provides, the chances of conviction for spreading fake news, which does not even qualify as an illegal activity in most countries from which these fake stories originate, is almost zero.[15]

As discussed above, the monetary benefits of creating fake news are substantial. In cases where the incentives are not monetary, the psychological benefits of manipulating the thinking and behaviour of society are also substantial. Thus, the individual benefits of spreading fake news always outweigh the individual costs, and is thus always profitable for the maker.

2.2. The Platforms:

Platforms such as Google, Facebook and Twitter play a pivotal role in the spread of fake news. These platforms are attention merchants who harvest attention and resell it for marketing and advertising purposes.[16] They use the content provided by the fake news vendors to harvest attention, then monetize on it by way of advertisements. The role of these platforms however is not limited to providing an avenue for sellers of information and consumers of information to interact. These corporations collect enormous amounts of data about the preferences, tastes, beliefs and online behaviour of its users. They do so in order to streamline the content that will

[11] Nir Kshetri and Jeffery Voas, *The Economics of Fake News*, IEEE COMPUTER SOCIETY 9 (2017). (hereinafter "KSHETRI AND VOAS")
[12] *Id.*
[13] CIRACE, *supra* note 2, at 12.
[14] SMITH AND BANIC, *supra* note 8.
[15] RYAN, SCHAUL AND BUNTER, *supra* note 6.
[16] HENDRICKS AND VESTERGAARD, *supra* note 1.

be visible to a user, ensuring that the content before him garners the maximum amount of engagement, which translates into money for the platforms.[17]

The nature of the transaction between the vendors of fake news and the platforms is thus a simple one. The platforms provide the vendors with an audience, along with the information about what will catch the attention of the said audience. In turn, the vendors provide the platforms with the tailor-made content that ensures wide-spread and constant engagement. Thus, the attention paid to one piece of information by a consumer has two different pay-outs, one to the vendor and one to the platform.[18]

One crucial distinction however needs to be drawn between the incentives that vendors and platforms have to spread fake news. Being profit-driven businesses, the platforms accrue no psychological benefits from this process. They also have immunity from conviction, since they are merely a medium through which people communicate their ideas. Thus, platforms will engage in spreading fake news if:

$$M_b > I_c + O_c$$[19]

where, M_b is the monetary benefit; I_c is the investment cost and O_c is the opportunity cost of spreading fake news. Since the marginal cost of making a piece of fake information accessible is negligible for these platforms, the only real consideration should be the opportunity costs associated with fake news. As we have seen above, the most attention-grabbing pieces of information are those which are exaggerated or distorted in some manner. Since consumers fail to pay enough attention to real or truthful news, the opportunity cost of fake news is very low.[20]

2.3. The Consumers:

At the onset, an assumption can be made about the consumers of fake news. It can be assumed that consumers view all fake news as worthless, or in other words, derive no utility from fake news. While this assumption holds true, the most pressing problem that consumers of information face is incomplete information. They lack the ability to objectively assess the

[17] Abby Ohlheiser, *This is How Facebook's Fake-news Writers Make Money*, THE WASHINGTON POST (Jan. 17, 2021) https://www.washingtonpost.com/news/the-intersect/wp/2016/11/18/this-is-how-the-internets-fake-news writers-make-money/.
[18] Paul Bernal, *Facebook: Why Facebook Makes the Fake News Problem Inevitable,* 69 (4) NORTH. IRELAND LEG. QUART. 513 (2019).
[19] KSHETRI AND VOAS, *supra* note 11.
[20] Gareth Thompson, *Towards a theory of rent-seeking in activist public relations,* 5 (3) PUBLIC RELATIONS INQUIRY 213 (2016).

accuracy and quality of the information before them and its sources.[21] Their inability to determine if a price of information is good and reliable results in a situation of adverse selection.[22]

Let's assume that it costs a consumer of information $2 worth of attention to consume any piece of information. A true piece is thus worth $2 ($1 going to the platform and $1 going to the creator) while fake news is worth $0. However, since a consumer is unable to differentiate between good and bad pieces of information, the average value of all information available on the above-mentioned platforms will fall to $1. The value of the information will thus be lower than the cost incurred by the consumer ($2 in terms of attention), and should result in a total market failure.[23]

However, it is clear that the prevalence of fake news has not resulted in a situation where there is infrequent or no consumption of information. This is because the initial assumption that consumers derive no utility from fake news is false. Studies have shown that large parts of the population are willing to believe and prefer viewing stories that flatters their prejudices and fits their preconceived notions regarding politics, science, religion and other social issues.[24] Consumers of information thus value all information, whether fake or real, at $2, making it possible for both vendors and platforms to spread fake news, which guarantees more engagement than reliable information.

2.4. A Pareto Efficient Transaction?

As we have seen above, each party involved in the spread and consumption of fake news has something to gain from the transaction. Consumers are able to readily and easily access the type of information that they want to consume, platforms are able to monetize on the attention of the consumers and the vendors are able to reach their own goals, be it monetary or otherwise. The transaction is nevertheless not Pareto efficient since it makes the parties to the transaction better off, but has a detrimental effect on social welfare.[25]

[21] RYAN, SCHAUL AND BUNTER, *supra* note 6.
[22] CIRACE, *supra* note 2, at 269.
[23] *Id.* at 270
[24] Neil Irwin, *Researchers Created Fake News: Here's What They Found*, THE NEW YORK TIMES (Jan. 17, 2021) https://www.nytimes.com/2017/01/18/upshot/researchers-created-fake-news-heres-what-they found.html.
[25] CIRACE, *supra* note 2, at 18.

Fake news has had a widely devasting impact on democratic societies over the past few years. Disinformation regarding vaccines leading to mass outbreaks of preventable diseases, conspiracy theories surrounding climate change leading to faster environmental degradation, morphed images and videos causing communal violence and fake political campaigns leading to riots and public shootings are just a few examples of this impact.[26] These socially undesirable consequences or 'externalities' cause the transaction of fake news to be less than Pareto efficient.

A negative externality occurs when a transaction between two or more parties imposes a cost on another party as an incidental by-product that is not charged or credited directly to the originating activity through the price system.[27] The detrimental effect of fake news on society is an externality since the harm is not directly caused to any of the parties to the transaction, but effects parties who are not a part of the transaction. The exchange of fake news occurs on a platform, but the harm or damage is occurring off the platform and is thus an externality.[28] The presence of these externalities indicate that the transaction of fake news is not Pareto efficient and points towards the need for some intervention. This intervention should be aimed at internalizing the externalities and charging the social costs of fake news directly to the transaction.

2.5. Moral Hazard and Self-Interested Behaviour:

Despite the heavy social costs that the spread of disinformation imposes, the transactions will still continue due to the self-interested behaviour of the parties involved. Acting in a purely self-serving manner, each party to the transaction of fake news will engage in spreading disinformation, regardless of the actions of the other parties, since it benefits them in some way. If each of these parties are allowed to act in a self-interested manner, society as a whole will be worse off.[29]

Even those individuals or platforms who spread fake news without the explicit intention to do so suffer from a moral hazard. A moral hazard occurs when a party has an incentive to increase

[26] Vian Bakir and Andrew McStay, *Fake News and the Economy of Emotions: Problems, Causes and Solutions* DIGITAL JOURNALISM 6 (2017).
[27] CIRACE, *supra* note 2, at 137.
[28] Marshall Van Alstyne, *Economic and Business Dimensions: A Response to Fake News as a Response to Citizens United* 62 (8) COMMUNICATIONS OF THE ACM 26 (2019).
[29] CIRACE, *supra* note 2, at 138.

their exposure to risk since they do not bear the full cost of that risk.[30] Individuals who consume and share pieces of information may be reluctant to expend time and resources on fact checking, since they do not directly bear the cost of fake news. They may be more willing to take a risk and negligently engage with all the information that they come across, regardless ofits veracity.

Similarly with the platforms, due to concerns of reputation, they may have an interest in ensuring that their content is credible. However, since they do not directly bear the cost of disinformation, they are more willing to take the risk and let all content be exchanged freely on the platform, as long as it drives up engagement. It is only the consumers and platforms whoface a moral hazard since they are the parties who do not explicitly want to engage in fake news, but take the risk anyway since it is profitable for them to do so. Vendors do not face a moral hazard since they are not taking a risk and engage in the activity fully intending the consequences of their actions.[31]

There exists one final facet of the perils of self-interested behaviour between the platforms and the consumers. It has already been discussed that platforms such as Facebook collect data regarding our online behaviour and using this data, show us what we want to see. By virtue of this, they are playing the role of an editor by deciding what and how much information should be made available to the audience.[32] This causes a principle-agent problem, where the agent is required to undertake tasks which are entirely in the interest of the principal, even when it goes against the self-interest of the agent.[33]

The consumer of information, who is the principal, employs the services of the platform, who is the agent, to take on the role of an editor with an understanding of the notions of public interest and the framework of values that they have to work within. It is however, not in the self-interest of a platform to take on this role and it may disregard its duties as an agent and act in a self-serving manner by allowing the spread of fake news.[34] Thus, self-interested behaviour by all the parties has led to reckless spreading of fake news, with little regard being given to

[30] CIRACE, *supra* note 2, at 276.
[31] CIRACE, *supra* note 2, at 276.
[32] Aidan White, *Facebook and Matters of Fact in the Post-Truth Era*, ETHICAL JOURNALISM NETWORK (Jan. 19, 2021) https://ethicaljournalismnetwork.org/resources/publications/ethics-in-the-news/fake-news. (hereinafter "WHITE")
[33] CIRACE, *supra* note 2, at 281.
[34] WHITE, *supra* note 32.

the externalities.

This entire analysis leaves us with a clear idea of the problem of fake news. The issue can briefly be stated as follows:

> *Acting in a purely self-interested manner, a party to the transaction of fake news has no incentive or obligation to stop the spread of disinformation. The resulting social harm is an externality that needs to be internalized in order to make the transaction socially efficient.*

This internalization, rather than an exercise of self-regulation, needs to be achieved through government intervention in the form of legal sanctions and binding regulations.

3. THE MARKETPLACE OF IDEAS AND OTHER ROADBLOCKS

All the aspects of fake news that have been explored so far in this paper indicate that there needs to be some form of intervention in the market in order to make the transactions socially beneficial. Policy makers however face a number of roadblocks while devising a system to internalize the social costs of fake news. The two most prominent of the roadblocks, the marketplace of ideas and the freedom of speech, are discussed below.

The theory of the 'marketplace of ideas' states that the best way for a democratic society to determine the best idea among many is to let ideas fight it out in a competitive market. Good ideas, in the same way that good products do, will win out and bad or inferior ideas will be tossed aside.[35] This is similar to Adam Smith's idea of markets tending to regulate themselves by means of competition between multiple sellers and buyers. Under this theory, state intervention in any form goes against the principles of non-intervention and tolerance of a free market. Civil libertarians thus argue that fake news is a part of the price we pay for a free society.[36]

This argument fails to effectively counter the need for government intervention. Even if we do accept the marketplace of ideas metaphor, the ubiquitous nature of fake news in today's society clearly indicates that there has been a market failure that has driven falsehoods to the top of the market.[37] Fake news is a market failure caused not only due to information asymmetries, but

[35] Ari Ezra Waldman, *The Marketplace of Fake News*, 20 (4) J. OF CONST. LAW 846 (2018). (hereinafter "WALDMAN")
[36] *Id.*
[37] Juan Carlos Escudero, *Fake News and the Systemic Lie in the Marketplace of Ideas: A Judicial Problem?* 87

also due to the inherent biases and self-motivated behaviour of the consumers of information. Thus, government intervention is justified, even within the marketplace of ideas.

The other argument made against government intervention in the transactions of fake news are the ones relating to the freedom of speech and expression. The right to freely exchange ideas and information, including those which may be offensive, is one of the basic pillars of all democratic societies.[38] Libertarians thus argue that the consumption and spread of fake news needs to be tolerated in order to protect an individual's freedom of speech, even if it results in socially undesirable outcomes. The freedom of speech and expression acts as a lexical constraint on the power of the government or the courts to curb the free exchange of fake news. It is thus argued that a balancing of interests should not be undertaken through marginal trade-offs between the freedom of speech and social welfare.[39]

The freedom of speech and expression deserves a lexical priority, since the harm that may result as a curtailment of this freedom will be much greater than the harm caused due to the spread of fake news.[40]

This argument is more persuasive than the marketplace of ideas metaphor. Giving the government the power to curb all speech that it deems to be fake news will be problematic and may lead to an abuse of power. Any form of dissent runs the risk of being termed as fake news and hence easily silenced. A lexical priority to the freedom of speech, subject to the inherent exceptions, should thus be carefully considered while deciding the extent of government intervention in the spread of fake news.

4. GOVERNMENT INTERVENTION AND POLICY RECOMMENDATIONS

In order to respect the lexical priority of the freedom of speech and expression, government intervention must be aimed at putting friction on the harmful externalities of fake news and not the speech itself. The intervention must facilitate an internalization of the social costs, with the damages caused due to fake news being charged back to the transaction. It is also important to determine which party to the transaction can most easily be deterred from engaging in the

UNIV. OF PUERTO RICO LAW REV. 1394 (2018).

[38] WALDMAN, *supra* note 35.

[39] CIRACE, *supra* note 2, at 61.

[40] Pat Shaw, *Rawls, The Lexical Difference Principle and Equality* 42 (166) THE PHILOSOPHICAL QUARTERLY 71 (1950).

activity.

As it was discussed earlier, the vendors of fake news enjoy the benefit of anonymity. It is not possible to pinpoint the source of every piece of fake news in order to put any sort of sanctions on its creator. Additionally, given that a content creator can be situated in any part of the world, action by only a few nations in this regard may be futile. With respect to the consumers, the transaction costs of penalizing every individual who voluntarily or negligently engages with fake news will be too high. Schemes such as media literacy aimed at consumers may help marginally reduce the externalities, but does not internalize the costs.[41]

The platforms are thus the party with the most potential. Apart from being only a few and easily identifiable, they are also the only party to the transaction with purely economic motivations. If the social cost imposed by fake news is shifted onto the platforms by putting a monetary value on the harm caused, the platforms will be incentivised to eliminate the spread of fake news. This can be achieved by way of a simple Pigovian Tax, which is assessed against the individual businesses or persons who engage in activities that create adverse side effects for society.[42]

Levying taxes on the platforms equal to the externalized cost of fake news will be the most efficient way of internalizing the damage. The level of tax can be calculated by crowdsourcing the identification of the harms caused due to fake news where the tax is subsequently used to compensate those who suffered most directly from the harm. This not only solves the problem of internalizing the external costs into the transaction but also has a deterrent effect.[43]
As discussed above, platforms will engage in spreading fake news as long as:

$$M_b > I_c + O_c$$

The tax levied on the platforms drive up their investment costs significantly. This will exceed their monetary benefits of engaging in fake news, and will deter them from actively facilitating disinformation on their platform.

[41]Anastasia Lennon, *Could Taxes Deter the Spread of Harmful Fake News*, BOSTON UNIVERSITY EDUCATION, (Jan. 23, 2021) http://www.bu.edu/articles/2019/deter-the-spread-of-harmful-fake-news/.
[42] Julia Kagan, *Pigovian Tax*, INVESTOPEDIA (Jan. 23, 2021) https://www.investopedia.com/terms/p/pigoviantax.asp#:~:text=A%20Pigovian%20(Pigouvian)%20tax%20is,of%20the%20product's%20market%20price.
[43] Marshall Van Alstyne, *Proposal: A Market for Truth to Address False Ads on Social Media* 63 (7) COMMUNICATIONS OF THE ACM 23 (2020).

However, under the proposed tax system, the platforms will be charged the cost of the externalities regardless of their role in creating them. This is will lead to a situation where platforms will be willing to spend any amount equal to or less than the expected value of the harm caused in order to prevent the spread of fake news. For example, if fake news on the harmful effects of vaccinations has the potential to cost $30,000 in public health care later on, the proposed tax will force platforms to predict this harm and take measures to stop it from occurring.[44] Platforms will be willing to spend up to the expected value of harm, which is $30,000 in this case, in activities such as fact-checking, flagging suspected fake content, weeding out and banning the most notorious fake news sites, etc., to reduce the possibility of them getting penalized for the harm.[45]

The Pigovian tax thus removes the incentives that platforms have to engage in fake news. Acting in a purely self-interested manner, the businesses cannot be expected to regulate themselves in order to achieve more socially desirable results. However, by mandating them to take cognizance of the harmful social effects of their actions, it may be possible to not only correct their actions, but also get them to correct the actions of the vendors and consumers alike. This will go a long way in curbing the spread of fake news and the destructive consequences it has on our social fabric.

5. CONCLUSION

Through the course of this paper, we have seen that the incentives of the vendors, platforms and consumers of fake news do not align with the interests of society as a whole. The harm that is caused due to disinformation is external to the transaction and does not directly affect these parties, causing the transaction of fake news to be Pareto inefficient. In order to capture the true cost of disinformation within the market for fake news, the externalities have to be identified, expressed in monetary terms and then be internalized into the transaction.

It is proposed that this internalization be brought about by way of a tax, equal to the cost of the externalities, payable by the platforms. This will undermine the profitability of engaging in

[44] *Biggest threat to Covid-19 Vaccination could be Fake News and Misinformation*, THE ECONOMIC TIMES (Jan. 24, 2021) https://economictimes.indiatimes.com/news/international/world-news/infodemic-biggest-threat-to covid-19-vaccination-could-be-fake-news-and-misinformation/articleshow/79420886.cms.
[45] *Id.*

fake news and will incentivize the platforms to undertake certain measures to curb the spread of disinformation. Removing the value that even one party derives from the proliferation of inaccurate and misleading information can go a long way in our fight against fake news. With diverse national and international actors waging information wars for a number of reasons, an economic counter attack on the solely profit-driven platforms may be the best defence.

ECONOMIC ANALYSIS OF LIQUOR PROHIBITION IN BIHAR ON THE EFFICIENCY CRITERIA

*Dr. Shivani Mohan**

*Dr. Manoranjan Kumar***

ABSTRACT

The State of Bihar implemented a State wise liquor ban on manufacturing, possession, sale and consumption of Indian Made Foreign Liquor (IMFL), Foreign Made Foreign Liquor (FMFL) and Beer on April 5, 2016, through the "Bihar Prohibition and Excise Act, 2016" to empower women and control domestic violence faced by them due to excessive drinking. Thepresent study is based on a critical analysis of the abovementioned legislation and its potential impact on the economy of Bihar. The impact analysis shall be based on data collected from different sources. The study will analyse the State's economic capacity and its resources used towards effective implementation of the alcohol ban in the last four years. Thestudy's findings can help decide whether the abovementioned law is an economically efficient solution or not for a resource starved State like Bihar.

The study will also shed light on the unintended consequences of the Bihar alcohol prohibition policy on the socio-economic environment of the State. Consequently, based on the findings, the policymakers can understand the impact of the policy on revenue, social and other economic expenditures of the State government, employment and economic growth of Bihar. At this point, it is imperative to understand that the economic impact of prohibition policy cannot be undermined. In order to assess the full range of economic implications of theliquor ban policy, the government of Bihar needs to understand that the implementation should not evoke contradictory responses from policy targets. This will make the alcohol prohibition policy well-designed and help control spill-over effects and other externalities attached to it.

Keywords: Alcohol Ban, policy, socio-economic environment

* *Assistant Professor of Economics, Chanakya National Law University, Patna,*

Email: shivanimohan@cnlu.ac.in

** *Assistant Professor of Law, Chanakya National Law University, Patna,*

Email: manoranjankumar@cnlu.ac.in

1. INTRODUCTION

A well-planned work produces good results, even in adverse condition

- Chanakya

Public policies are generally designed to achieve specific goals and objectives and are prepared to reach the intended beneficiaries. Some policies come in complex packages and may seem theoretically promising before implementation but may often result in unintended impacts and consequences. State of Bihar implemented State wise liquor ban on possession, sale and consumption of India Made Foreign Liquor (IMFL), Foreign Made Foreign Liquor (FMFL) and Beer with the strictest intensity on April 5, 2016, through the "Bihar Prohibition and Excise Act, 2016." The penal provisions of the Act were very stringent, and the offences under the Excise Act were made non-compoundable as well as non-bailable.

The Act came into existence after the Chief Minister, Sri Nitish Kumar announced in one of his election campaigns on 26 November 2015 that alcohol would be banned in the State if re-elected. His intention to implement the law was to empower women and control domestic violence due to excessive drinking. However, opposition parties and most analysts refuted and dismissed this idea by saying that it was purely a political gimmick as it was the very same regime in which the sale of alcohol was promoted to a great extent. The government's decision was based on the understanding that liquor prohibition policy shall improve the social and economic environment of the State even though it would adversely affect the State exchequer.

It was also presumed that as a result of this liquor ban policy, the households' savings would increase and the spending on other essential goods like education, health would increase, which in turn would improve the quality of human resources. However, in 2018 the State government introduced some amendments to the law, making it less harsh and more flexible. The amendments *inter alia* intended to stop the misuse of law against innocent people and make the punishment proportionate to the crime. Accordingly, the fine was reduced from 1 lakh to 50,000 for the first-time offenders and the first offence under the provisions of the lawwere no longer a non-bailable offence.

Though the State government implemented the Act with all its might, there were many challenges in its effective enforcement. It is obvious that for its successful and effective implementation, the highly ambitious policy required immense cooperation and coordination amongst various departments like police and excise department and active cooperation and support from the government of the neighbouring States like Uttar Pradesh, Jharkhand and West Bengal.

It is pertinent to mention here that the present alcohol ban policy is not the first of its kind. In 1970, Karpoori Thakur, the then Chief Minister of Bihar had enforced a complete ban on liquor. Unfortunately, it lasted for only a year.[1] The prohibition was withdrawn in the wake ofincreased corruption and bootlegging.[2] History is replete with examples of unsuccessful attempts by the governments to impose such liquor bans across the nation and even in foreigncountries. The famous Volstead Act of 1920 of the United States can be seen as a benchmark where prohibition resulted in the establishment of organised crime and corruption and parallelillegal economy costing the poor people and the State exchequer heavily.[3]

Even in the context of India, the liquor bans in different States have been only partially successful. In this regard, it becomes imperative to discuss the experiences of different States across the country in implementing similar prohibitions. At present, there are four States namely Gujarat, Nagaland, Bihar, Mizoram and the Union Territory of Lakshadweep, implementing complete prohibition. The State of Gujarat which was carved out of Bombay State in 1960, continues the ban on manufacture, storage, sale and consumption of alcohol.[4] The State of Nagaland has also enforced a complete ban under the Nagaland Liquor Total Prohibition Act, 1989. However, there are some restricted permits on consumption by foreigners and NRIs.[5] In Mizoram, the Mizoram Liquor Total Prohibition (MLTP) Act, 1995 banned the sale as well as consumption of alcohol across the State. However, in 2007 some amendments were made in the MLTP Act whereby permission was granted for

[1] Akshat Kaushal & Satyavrat Mishra, *Bihar's liquor ban is good politics, bad economics*, BUSINESS STANDARD (Dec.15, 2015),, https://www.business-standard.com/article/politics/bihar-s-liquor-ban-is-good-politics-bad-economics-115120500786_1.html [hereinafter Kaushal, *Bihar's liquor ban*].

[2] India Today Web Desk, *what led to an early liquor ban in Bihar? Why did it fail earlier?*, INDIA TODAY (Apr. 6, 2016), https://www.indiatoday.in/fyi/story/liquor-ban-bihar-nitish-kumar-dry-state-316617-2016-04-06.

[3] Ajoy Kumar, *Politics of Prohibition*, THE PIONEER (Oct.23, 2020), https://www.dailypioneer.com/2020/columnists/politics-of-prohibition.html.

[4] *States with total and phase-wise prohibition of alcohol in India*, THE INDIAN EXPRESS (Apr. 6, 2016), https://indianexpress.com/article/india/india-news-india/bihar-liquor-ban-states-having-total-prohibition-gujarat-kerala/.

[5] *A brief history of prohibition in India*, OPINDIA (Mar. 7, 2021, 6: 30 PM), https://www.opindia.com/2017/04/a-brief-history-of-prohibition-in-india/.

manufacturing wine from guavas and grapes.[6] While States like Haryana, Andhra Pradesh, and Kerala had done away with the prohibition on alcohol. It is commonly believed that such complete liquor prohibitions are never successful due to various factors: economics and economy being prime amongst them. The abovementioned States repealed the law because of rampant illegal sales, increased demand for alternative addictive substances and heavy loss of revenue to the State exchequer.

2. LIQUOR PROHIBITION AND ITS IMPACT ON REVENUE OF THE STATE

In 2015, when the Chief Minister of Bihar, Shri Nitish Kumar announced the implementation of the new liquor ban policy from the financial year 2016, he was aware that the new excise policy would cost the State exchequer very dearly.[7] But at that point in time, he was hardly concerned how the prohibition would affect the private individuals engaged with the sale, possession and consumption of liquor, their earnings and livelihoods. The decision to implement the contentious policy was based on the argument that there were significant private as well as social considerations that a complete ban alone could address. It would not be wrong to say that the ban intended to improve the quality of life of the people of Bihar, butdirectly and indirectly it has left the State grappling with falling revenues and rising spending. Bihar's estimated loss of excise duty of revenue was to the tune of 4000 crore rupees on account of the ban on sale of liquor.[8] This budgeted estimate was for the year 2016-17 as per the economic survey of India.[9]

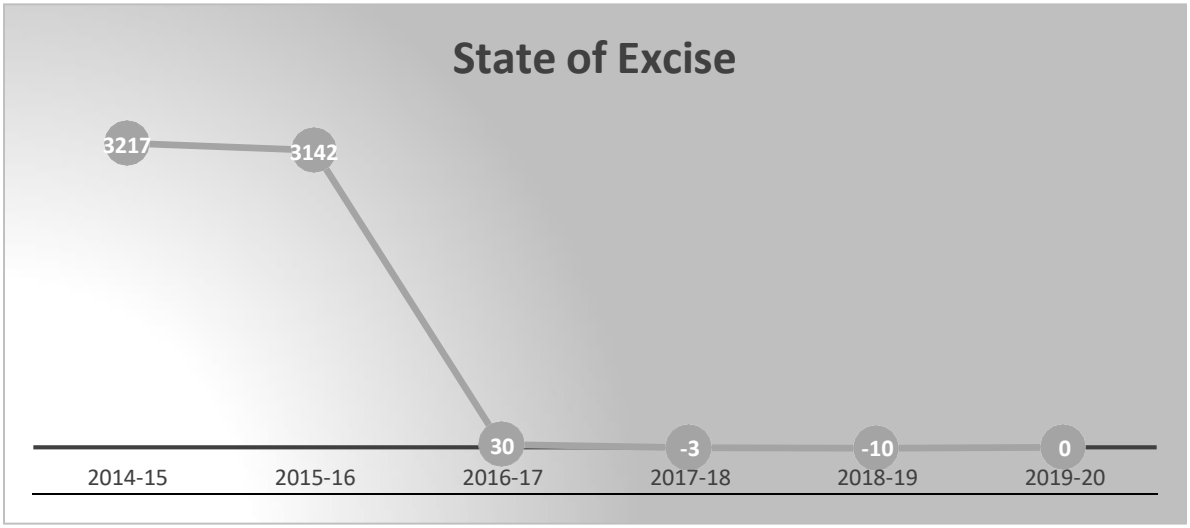
In Crores

Source of Revenue	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20

[6] *Id.*
[7] Satyavrat Mishra, *Bihar to ban liquor sale from April next yea*r, BUSINESS STANDARD (Nov. 27, 2015), https://www.business-standard.com/article/politics/alcohol-ban-in-bihar-from-april-2016-announces-cm-nitish-kumar-115112600538_1.html. .
[8] Anirban Guha Roy, *Liquor ban: Bihar govt will lose nearly Rs 4000 Crore revenue annually*, HINDUSTAN TIMES (April 6, 2016), https://www.hindustantimes.com/patna/liquor-ban-bihar-govt-will-lose-nearly-rs-4000- crore-revenue-annually/story-OsP8jrE6fixaBgvQL2n2FK.html.
[9] India Spend & Aditi Phadnis, *Crime rate down in Bihar courtesy the liquor ban, but so is state's revenue*, BUSINESS STANDARD (Nov. 9, 2020) https://www.business-standard.com/article/elections/crime-rate-down-in-bihar-courtesy-the-liqour-ban-but-so-is-state-s-revenue-120110800764_1.html.

State of Excise	3217	3142	30	-3	-10	0

Finance Accounts, Government of Bihar and State Government Budget



It is clear from the above data, that the quantum amount of revenue loss due to the liquor ban policy is considerable enough to adversely affect the growth rate as well as State spending on socio-economic and public welfare. Even after more than four years of its implementation, State government is yet to find out possible ways to make up the revenue loss. A close study of revenue raised by the State of Bihar clearly indicates that it decreased by 2.55 per cent from Rs. 23,742 crores in 2016-17 to 23, 136.49 crore in 2017-18.[10]

Revenue Raised by the State of Bihar (in Rs. Crore)

Particulars	**2013-14**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
1. Tax Revenue	**19,960**	**20750.23**	**25,449.18**	**23742.26**	**23,136.49**
Percentage of Growth compared to the previous year	**22.81**	**3.96**	**22.65**	**(-)6.71**	**(-)2.55**
2. Non-Tax Revenue	**1,544.83**	**1,557.98**	**2,185.64**	**2,403.11**	**3,506.74**
Percentage of growth compared to the previous year	**36.08**	**0.85**	**40.29**	**9.95**	**45.93**

[10] CAG, STATE FINANCES, GOVERNMENT OF BIHAR (2019) https://cag.gov.in/cag_old/content/report-no-1-2019-state-finances-government-bihar.

Total	**21,505.51**	**22,308.21**	**27,634.82**	**26,145.37**	**26,643.23**

CAG Report on Revenue Sector, March 2018. (Government of Bihar)

A more detailed examination into the development expenditure done by the government of Bihar on social services, education and health demonstrates that after the implementation of the ban, expenditure on education dropped in 2017-18 over the four-year period, and expenditure on health remained less than the average of general category States.

Fiscal priority of the State during 2013-14 and 2017-18 (in per cent)

Fiscal Priority (%of GSDP)	**Education/AE**	**Health/AE**
General category States average 2013-14	17.20	4.50
Bihar's Average 2013-14	**19.47**	3.33
General category State average 2017-18	15.50	4.90
Bihar' Average 2017-18	**18.85**	**4.69**

Source: CAG Report 2019 on State of Finances, Government of Bihar.

A/E: Aggregate Expenditure

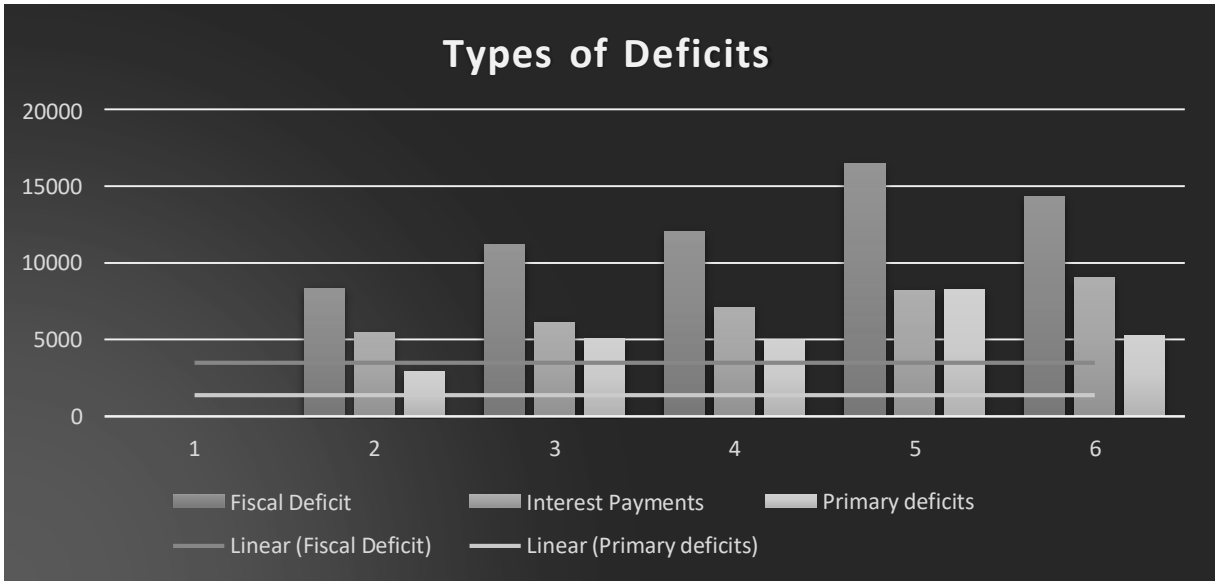
A closer review of the fiscal health of Bihar can be discussed with the help of the table given below:

(In crore)

Year	**Non-Debt Receipt**	**Primary Expenditure**	**Fiscal Deficit**	**Interest Payments**	**Primary deficits**
1	**2**	**3**	**4**	**5**	**6 (4-5)**
2013-14	68,934	71,826	8,352	5,460	2,892
2014-15	79,910	84,960	11,179	6,129	5,050
2015-16	96,142	1,01,105	12,061	7,098	4,963
2016-17	1,05,608	1,13,896	16,479	8,191	8,288
2017-18	1,17,469	1,22,720	14,305	9,054	5,251

CAG: State Finance Government of Bihar, 2019

Based on the report of CAG on the financial condition of Bihar 2019, it can be observed that the primary deficit of the State increased by 2,359 crores in just five years, indicating that non-debt receipts of the State were inadequate to meet the primary expenditure of the State.[11] Here it is important to mention that the State government's claim that the fiscal deficit was less than the budget estimate by 21.02% has to be corroborated with the fact that it was on account of the decrease in the revenue expenditure by 16.30 % and capital expenditure by 10.22% and not because of increase in revenue of the government.[12] This can be clear withthe help of the chart given below:



The discussion would be incomplete if the recent opinion of the Confederation of Indian Alcoholic Beverage Companies (CIABC) is not brought into the picture. The Confederation of Indian Alcoholic Beverage Companies (CIABC) urged the Bihar government to withdraw the prohibition as smuggling and sale of illicit liquor and bootlegging has increased many folds.[13] The organised illegal liquor cartel is further worsening the situation by selling liquor at a 400% premium causing huge financial loss to the State.[14] The significant implication of

[11] *Id.*
[12] CAG, AUDIT REPORT (2019), https://cag.gov.in/uploads/download_audit_report/2019/Report_No_1_of_2019_State_Finances_Government_of_Bihar.pdf.
[13] Smita Balram, *Liquor Body CIABC urges Bihar CM to withdraw prohibition just days after he reinforced strict enforcement of the law*, ECONOMICS TIMES (Dec.17, 2020) https://economictimes.indiatimes.com/industry/cons-products/liquor/liquor-body-ciabc-urges-bihar-cm-to-withdraw-prohibition-just-days-after-he-reinforced-strict-enforcement-of-the-law/articleshow/79777172.cms?from=mdr.
[14] *Id.*

this prohibition is that besides perpetual loss to the State exchequer, State government's spending on other important social and economic sectors are also negatively affected.

3. IMPACT OF LIQUOR BAN ON RATE OF CRIME

There is always a strong relationship between economic growth and crime. A high rate of crime and violence imposes higher social and economic costs on the society. These costs magnify in the case of economically poor States with a weaker law and order condition. While the State government of Bihar may have implemented the ban on alcohol to control domestic violence faced by women due to excessive drinking of the male members, it also assured that alcohol-related crimes like public drunkenness and other disorderly conduct[15]will come down to a great extent.

In this regard, it is significant to mention that the success of previous alcohol ban policies implemented in different States may be examined to assess the overall reduction in the rate of crime. In the case of Bihar, the result seems to be very paradoxical and maladjusted. The prohibition policy has discouraged domestic violence and other criminal activities but the reduction in crime has not brought about an overall positive impact on the social and economic environment. The expected social benefits from the present prohibition policy are not strong enough to offset the negative economic impacts on the State. The strongestexpected social outcome of an increase in women empowerment by a reduction in domestic violence and thereby enhancing the human development situation is unclear and therefore debatable. Furthermore, there is no significant fall in the rate of poverty, income inequality and even unemployment. In fact, to look at the broader picture, the Indian Made Foreign Liquors industry (IMFL) claims that it supports livelihood and is a source of employment to approximately 35 lakh farming families across the nation.[16] It also extends support to several ancillary industries like glass, tin, paper and plastic with a turnover between Rs 6000-7000 crore.[17] In the case of Bihar, the liquor industry United Spirits (USL) confirmed that over

[15] CHRISTOPHER CARPENTER, & CARLOS DOBKIN, ALCOHOL REGULATION AND CRIME. IN CONTROLLING CRIME: STRATEGIES AND TRADE-OFFS, 329 (Univ. Chicago Press, 2010).
[16] Vinod Giri, *No to prohibition: Evidence from Indian experiments show that liquor ban does not lead to desired changes*, FINANCIAL EXPRESS (Feb. 20, 2020) https://www.financialexpress.com/opinion/no-to-prohibition-evidence-from-indian-experiments-show-that-liquor-ban-does-not-lead-to-desired-changes/1873450/.
[17] *Id.*

500 employees directly lost their jobs due to the closure of bottling facilities after alcohol prohibition.[18]

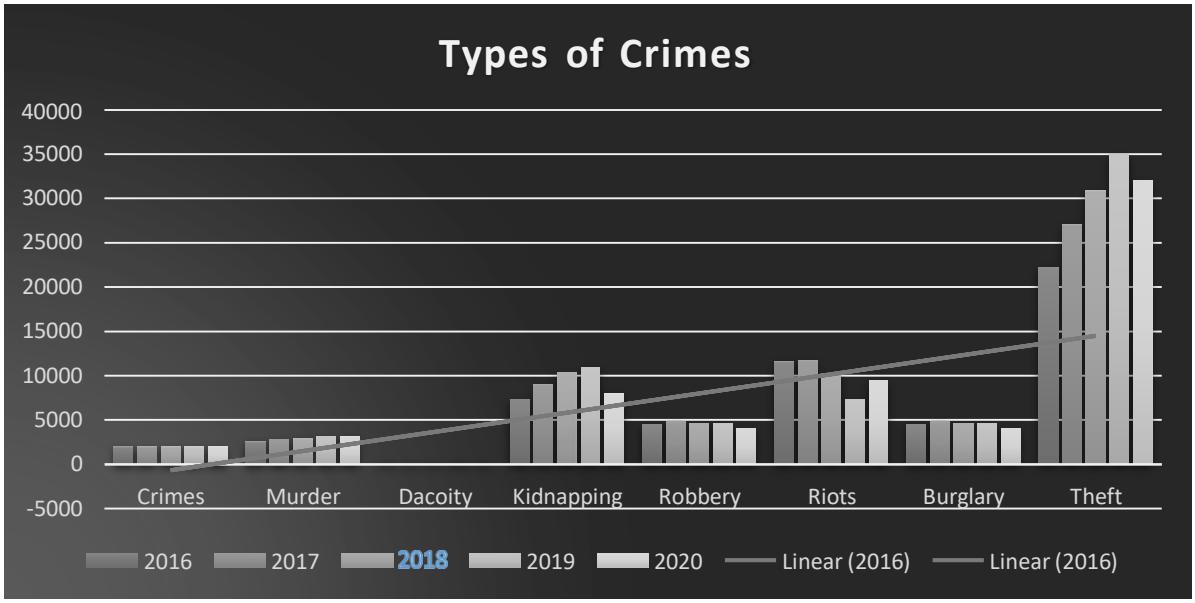
In the face of increased unemployment and income loss to the people involved in the liquor production sector, chances of them getting involved in allied activities like black marketing, bootlegging and engaging in criminal activities to meet their expenses also increases. The comparative crime data of Bihar from 2016 to 2019 prepared by the Bihar State police department[19] does not show much of decreasing trend and significant impact on the rate of crime particularly non-violent crimes (Burglary and Theft). However, the prohibition had a negative impact on violent crimes (murder, dacoity, kidnapping, robbery, riots).

Crimes	**2016**	**2017**	**2018**	**2019**	**2020**
Murder	2581	2803	2933	3138	3149
Dacoity	349	325	278	391	222
Kidnapping	7324	8972	10310	10925	8004
Robbery	4511	4776	4612	4599	4031
Riots	11617	11698	10276	7262	9419
Burglary	4511	4776	4612	4599	4031
Theft	22228	27029	30915	34970	31971

Comparative Crime Data of Bihar from 2016-20.

[18] *Over 500 job losses due to liquor ban in Bihar: United Spirits* ECONOMICS TIMES (Apr. 3, 2017), https://economictimes.indiatimes.com/industry/cons-products/liquor/over-500-job-losses-due-to-liquor-ban-in-bihar-united-spirits/articleshow/57973173.cms?from=mdr.

[19] BIHAR POLICE, CRIME DATA ACHIEVEMENTS (2020 http://biharpolice.bih.nic.in/menuhome/CDA.htm.



It is believed that one plausible cause of reduction in violent crime could be the increased police deployment for preventing the illegal sale of liquor. However, it is important tomention here that a quantitative assessment of the overall impact of prohibition on alcohol and reduction in crime would be difficult because of the challenges faced by the State in implementing a ban and controlling crime. The porous border of the State makes the task of uniform implementation a big challenge. Consequently, whatever significant reduction is noticed in the crime rate is much confined to the interior district of the State. Moreover, the long permeable international border shared with Nepal helps proliferate liquor shops across the State border by inviting tipplers, resulting in loss of revenue to Bihar and gain of revenue to Nepal.[20]

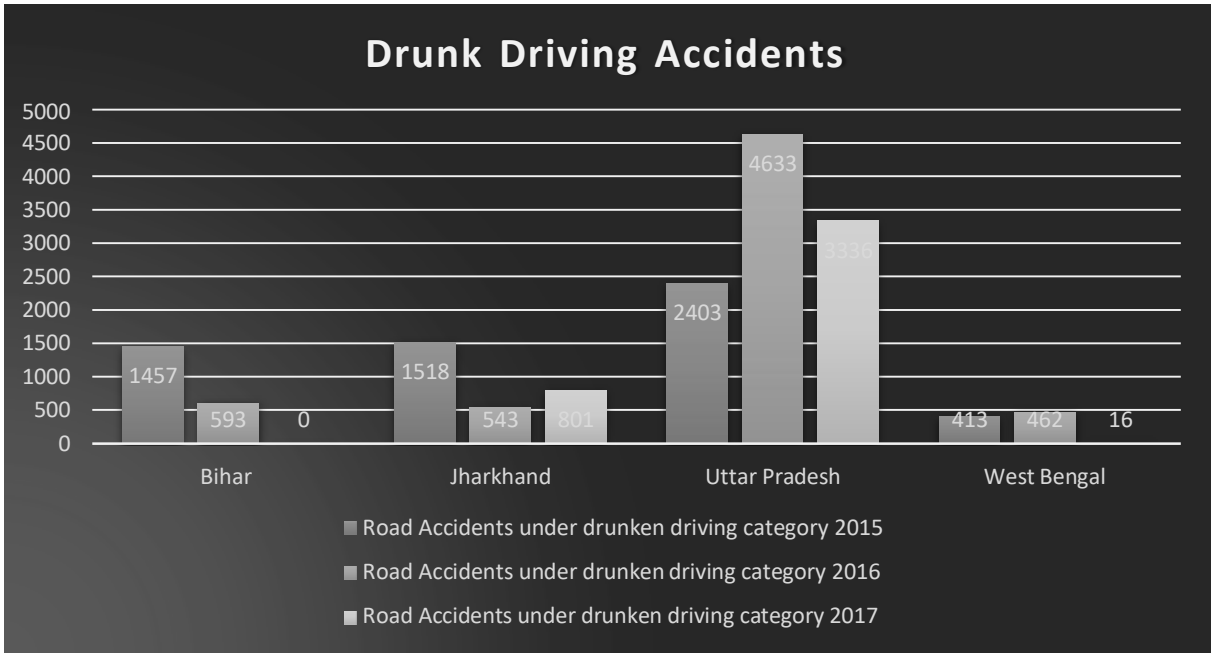
However, there are some positive impacts of the above prohibition on drunk driving cases in Bihar. As per the Motor Vehicle Act 1988, drunk driving is considered a criminal offence.[21] Section 185 of the act provides for the punishment of imprisonment or fine or both for the offence of drunken driving cases.[22] According to the information received from the department of police of States/UTs, there is a steep fall in the number of road accidents under the drunken driving category since 2015. Within a period the implementation of prohibition

[20] Kaushal, *Bihar's liquor ban, supra* note 1.
[21] PIB, GOI, ACCIDENTS DUE TO DRUNKEN DRIVING (July 4, 2019).
[22] *Id.*

laws, the cases related to drunk driving and fatalities fell to 60% in 2016.[23] In fact, in the year 2019, when the entire nation's concern was to reduce road accidents and bring down road crashes on the highways, Bihar reported zero cases of drunk driving accidents. The details shared by Ministry of Road Transport & Highways are given below:

State	Road Accidents under drunken driving category 2015	Road Accidents under drunken driving category 2016	Road Accidents under drunken driving category 2017
Bihar	1457	593	0
Jharkhand	1518	543	801
Uttar Pradesh	2403	4633	3336
West Bengal	413	462	16

Press Information Bureau, Ministry of Road Transport& Highway



In the category of drunk driving cases, the steep fall in the number of cases from the very first year of policy implementation and then reaching the number zero needs to be applauded. In

[23] Dipak K Dash, *Bihar's liquor ban results in over 60% reduction in road deaths due to drunk driving*, THE ECONOMIC TIMES (Apr. 21, 2017) https://economictimes.indiatimes.com/news/politics-and-nation/bihars-liquor-ban-results-in-over-60-reduction-in-road-deaths-due-to-drunk-driving/articleshow/58293957.cms.

terms of spill-overs associated with alcohol consumption like motor vehicle accidents and other violent crimes, present prohibition seems to be successful in controlling it.

4. COST OF ENFORCEMENT OF BAN AND THE RESULTING SOCIO-ECONOMIC BENEFITS

The success of the liquor prohibition policy in controlling crime and violence and in improving the social and economic environment accruing from a reduction in expenditure on alcohol can extend support to the worth of continuing this programme even at high financial costs. However, in the case of Bihar, this statement does not seem to be a strong argument. While it has definitely led to a reduction in open consumption of liquor, the administrative and economic costs of enforcement are substantially above the social gains resulting from the prohibition. According to one of the leading newspapers, prohibition has crippled the judicial administration to a great extent.[24] In fact, there are numerous litigations related to liquor cases and judicial administration, resulting in overcrowding of jails.[25]

Within four years of its implementation, about 2.14 lakh cases have been registered, over 2.55 lakh people have been booked, and almost 1.67 lakh arrests have been made under the existing prohibition law.[26] Approximately 40,000 bail applications are pending in the High Court.[27] According to one of the records of police headquarters in Patna, out of 2,12,323 arrests made with respect to possession of illegal liquor between April 2016 to January 2020, only 19,500 were suppliers.[28] Most of the arrested were poor, unable to pay bail bond and are therefore languishing in jail. It is alleged that the manner in which arrests are made clearly indicates that it is biased in its approach.

It is relevant to highlight that the economic cost of enforcement definitely increases many folds, particularly if the State government diverts the limited police resources available for monitoring and enforcing the liquor ban rather than controlling overall crimes. This increases the probability of proliferation of other forms of organised crimes, causing law and order problems. On the point of social and other benefits accrued from prohibition on liquor, it should be kept in mind that in the presence of other alternative addictive the impact of

[24] Giri, *supra* note 16.
[25] Balram, *supra* note 13.
[26] Giri, *supra* note 16.
[27] *Id.*
[28] Kumar *supra* note 3.

alcohol ban would be confined to the scarcity of only one alternative and nothing more. The fact is that there is a steep rise in the consumption of substance abuse like cannabis, inhalants, sedatives to opioids.[29] Many studies have confirmed that stringent prohibitions often trigger consumption of more hazardous substances and frequently give rise to hooch tragedy. In fact, just after four months of implementing the prohibition Act, 19 people died and six people lost their eyesight in Manjha block of the Gopalganj district of Bihar after consuming spurious liquor.[30]

With a poor health machinery and infrastructure, the State government is finding it very difficult to deal with alcohol-related health complications like withdrawal symptoms and other psychological issues. The inadequate preparation in opening de-addiction centres and clinics, insufficient training of medical officers and personals, and lack of awareness programmes seem to adversely affect the benefits of the State's prohibition policy. Furthermore, getting admitted to de-addiction centres or rehabilitation centres is not getting much attention and support from the public because of the social stigma attached to it. The need of the hour is that there should be supportive initiatives from various corners of the society, including self-help groups and NGOs for prevention, treatment and care related to alcohol-induced disorders for affected families.

On the basis of the above cost-benefit analysis of the prohibition policy, it can be concluded that how well the ban has achieved the intended objective is yet to be ascertained. Laws and legal rules affect people in many ways. In a large complex society, one can be fairly certain that making or repealing laws will make some people better off and some worse off. The use of the economic efficiency criterion for judging or examining any legal rule helps us understand that it should result in economic improvement. Even if 'Pareto efficiency' is applied, for an outcome to be more efficient, at least one person should be made better off and nobody should be made worse off As is evident, the same is not fulfilled by the above prohibition. However, it is said that in the real world, no action of the government or legalrule can be Pareto efficient, and the Kaldor-Hicks formula remains the major economic principle to test the underlying cost and benefits of any public policy. Even on the basis of

[29] *Alcohol banned in Nitish Kumar's Bihar, now cases of drug abuse spikes*, FINANCIAL EXPRESS (Apr. 8, 2017) https://www.financialexpress.com/india-news/alcohol-banned-in-nitish-kumars-bihar-now-cases-of-drug-abuse-spike/620525/.

[30] Amarnath Tewary, *2016 Bihar hooch tragedy, nine get death sentence; life term for four*, THE HINDU, (Mar. 5, 2021) https://www.thehindu.com/news/national/other-states/2016-bihar-hooch-tragedy-nine-get-death-sentence-life-term-for-four/article33997424.ece.

Kaldor-Hicks efficiency criteria, the underlying cost of this prohibition law seems to be far above the benefits accruing to society. While supporters of the policy may try to counter some of these arguments or issues raised with their subjective analysis of morality, it should always be kept in mind that the role of law in bringing economic equality and justice must not be discounted at any cost.

5. CONCLUSIONS AND RECOMMENDATIONS

While the above study provides limited insights into the prohibition policy, it is clear in its findings. Liquor had an important economic place in the State of Bihar as the excise revenue earned on IMFL and Country spirit at one time reached the peak of 4,001 crores in 2015-16.[31] There was almost a sevenfold rise in excise revenue from 525 crores in 2007-08, making excise duty flourishing and upsurging section of the State revenue.[32] It was an important source of fiscal revenue in the form of taxes. Liquor production was a source of direct and indirect employment, and the prohibition on consumption, sale and production has not brought significant change in the social environment and the rate of crime.

The economic impact of the prohibition policy cannot be undermined, and therefore, in order to assess the full range of economic implications of the ban policy, the government of Bihar needs to understand that the implementation should not evoke contradictory responses from policy targets. However, the State government may argue that prohibition alone can address the significant individual and negative social effects attached to drinking, and so the revenue loss of the government should be juxtaposed against the social and other economic gains of the State.

On the point of making the present policy more efficient, the following measures are immediately required. Firstly, Prohibition can achieve its intended objective when there is community mobilisation and not mere group and sub-group (addict and his family, sellers, criminals) mobilisation. Therefore, instead of sudden implementation of a complete ban on manufacturing, sale and consumption of alcohol and thereby adversely affecting every aspect

[31] Amitabh Srivastava, *Bihar goes dry*, INDIA TODAY (Apr. 18, 2016, 4:50 PM) https://www.indiatoday.in/magazine/the-big-story/story/20160418-bihar-goes-dry-liquor-ban-nitish-kumar-828716-2016-04-06.
[32] *Id.*

of the economy and human life, the State government and the policymakers should have focussed on framing stricter laws assuring responsible behaviour and compliance and creating mass awareness against liquor consumption.

Secondly, on the point of the high economic cost of implementation in the form of diverting limited police resources enforcing the liquor ban. State should focus on collective action involving all groups like community workers, social media, NGOs, SHGs, health activists, and educational institutions. The emphasis of collective action should be on mass awareness, highlighting the adverse social and economic consequences of alcohol abuse.

Thirdly, the prohibition policy will become very efficient in its approach if it is accompanied by the State government's other strategies and policies based on the WHO guidelines to reduce the harmful use of alcohol. These guidelines are based on global experiences and therefore, are capable of effectively improving the health and social outcomes for all, including individuals, families and communities.[33] The global strategy prepared by WHO is a mixture of economic, social and legal requirements to reduce the harmful uses of alcohol.

Fourthly, the government should also focus its attention on the other alternative addictive substances and toxicants; otherwise, the impact of the alcohol ban would be confined to the scarcity of only one of the addictive and nothing more. In the case of Bihar, the government should control the spill over effects in the form of increased demand and the sale of other substitute addictives.

Fifthly, government prohibition policy should be adequately funded at each implementation level, particularly in providing health services to the marginal community. It should be treated as a public health issue and not merely a legal issue. The government should give equal impetus on awareness programmes related to alcohol and its health and medical consequences.

Last but not least, sound monitoring and surveillance are indispensable for the success of any policy. Bihar needs a consistent, sustainable action of the government with strong leadership, political determination and commitment to pursue the prohibition policy. The prohibition policy should be rational, efficient and clear with specific objectives and targets.

[33] *10 areas governments could work with to reduce the harmful use of alcohol*, WORLD HEALTH ORGANIZATION (Mar. 6, 2021, 5;06 PM) https://www.who.int/news-room/feature-stories/detail/10-areas-for-national-action-on-alcohol.