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ABSTRACT

A Strategic Interpretation of Legal Transplants*

In this Paper we provide a strategic explanation for the spontaneous convergence of legal rules, which nevertheless falls short of harmonization across jurisdictions. We identify a free-riding problem and discuss its implications for legal culture, integration, and harmonization. It is argued that harmonization of legal rules by a central authority in order to generate a uniform legal culture could be the response to a coordination failure. It could also be a serious policy mistake, however, leaving everybody worse off. The result depends crucially on the relative benefits and costs of importing and integrating different legal orders.

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1 Introduction

The extent to which one legal system may adapt its own principles and procedures to those of foreign jurisdictions has been the subject of an interesting recent literature (Legrand, 1996 and 1999; Hesselink, 2001). The issue is important in an age when considerable efforts are being made to integrate legal systems, particularly within the European Union. But it is part of a bigger set of questions concerned with how legal systems evolve in relation to one another. Jurists have not been slow to develop theories on such evolution (e.g. Watson, 1985; Zimmermann, 2001) but have largely ignored economic explanations.

In a recent interesting paper (Berkowitz et al., 2003), it has been argued that the ability successfully to adapt transplanted law to local conditions has a major impact on economic development. Also, in recent years, comparative economics and institutional analysis has experienced a renewed interest focusing on efficiency of legal systems, consequences of transplantation and the politics of institutional design (Djankov et al., 2003a). Such views have important practical implications in an age when considerable efforts are being made to integrate legal systems, particularly within the European Union.

A major step forward was taken with the hypothesis, (see, especially, Mattei and Pulitini, 1991; Mattei, 1994; Ogus, 1999) that competition between the suppliers of legal rules will significantly influence the evolution of law.[1] If domestic industries competing in international markets find that their national legal system imposes on them higher costs than those incurred

[1]For a more general discussion of competition between jurisdictions within the US Federation and the European Union, see Esty and Giradin, 2001.

by their foreign competitors operating under a different jurisdiction, they will apply pressure on their lawmakers to reduce the costs. That demand will be strengthened by the threat of migration to the more favorable jurisdiction, assuming that there are not barriers to the freedom of establishment and to the movement of capital. Also to the extent that this is allowed by the private international law of their home jurisdiction, firms may be able to select the jurisdiction whose principles are to apply to their transactions or business. As regards supply, lawmakers are likely to respond positively to the demand from domestic industries because pressure by the latter can have a decisive influence on politicians' behavior. Lawmakers will also be motivated, particularly in small countries heavily dependent on international trade, to attract firms from other jurisdictions and multi-national corporations since that should entail increased investment, demand for labor and tax revenue.

In an earlier paper (Ogus, 1999) one of us investigated the implications of the analysis for the acceptance of "transplants" and convergence between legal systems. It is envisaged that such a development is likely to occur in relation to homogenous legal products, those areas of law where there is unlikely to be a significant variation in preferences as between market actors in different jurisdictions. The best examples are to be found in "facilitative law", which provides mechanisms for ensuring mutually desired outcomes: contracts; corporations; other forms of legal organizations; and dealings with property. The assumed preference is for the minimization of legal costs. In contrast, there is no expectation that competition between national systems will lead to a convergence of heterogeneous legal products which can be mainly identified with "interventionist law" (tort and regulatory law, but also those aspects of contract, property and corporate law which confer protec-

tion on parties assumed to be disadvantaged by processes of free bargaining, for example, consumers, employees, tenants and (in some contexts) shareholders). Here preferences may vary between countries as to the different combinations of the levels of legal intervention and of the price which must be paid for them. If this is the case, there is no necessary expectation that competition between national legal systems will lead to convergence, since much will depend on national preferences regarding the level of protection.[2]

Nor is it to be assumed, in relation to homogenous products, that competition will always prevail. There are key players in the processes of legal change who may find it in their interests to oppose competition. Professional lawyers are the most prominent in this category; inside or outside government, they can exert a huge influence on outcomes, in particular by their evaluation of what is legally "feasible". Some lawyers may benefit from the increased demand for their services following migration to their jurisdiction or adoption of it under a choice-of-law clause. That would suggest a strategy of supporting cost-reducing law reform as a response to the pressure of competition from other legal systems. On the other hand, it is perhaps equally likely that the majority of lawyers would benefit from resisting the competitive processes, maintaining their control over the supply of domestic legal skills and driving increased income from unreformed and more costly legal principles (Hadfield, 2000). An efficacious way of opposing reform proposals is to argue that they are anathema to the domestic jurisdiction's "legal culture".

What is "legal culture"? Post-modernists adopt a definition derived

[2]The situation may be different in the face of transboundary externalities: Esty and Geradin, 2001, 34-35.

from systems-theory: "the framework of intangibles within which an interpretative community operates, which has normative force for this community ... and which, over the *longue durée*, determines the identity of a community *as community*" (Legrand, 1999, 27). In practical terms, this is a set of linguistic, conceptual and procedural phenomena which serves to distinguish the legal community from other "communities" and which becomes the principal means of communication of legal principles and decisions in a particular jurisdiction. An economic interpretation leads us to the notion of a network (Ogus, 2002, 423). Networks reduce transaction costs between agents and their value increases as more agents adopt them, but they may lead to (at least temporary) monopolization and therefore rents (Shy, 2001).

In the case of legal culture, we can without difficulty envisage how monopoly rents may be earned by legal practitioners (Ogus, 2002, 427-429). They can exploit their power over the peculiar characteristics of the law to increase demand for their services.[3] Formalities, complexities and the technical language of the law generate both benefits and costs. Formalities reduce errors in the adjudication process; greater precision, and therefore complexity, should lead to outcomes matching clients' preferences; and the technical language is a convenient way of linking legal consequences to factual contingencies,[4] thereby reducing the costs of communication. But the greater the formalities, the more complex and the "denser" the technical language, the greater the cost to clients who must pay for the lawyers' expertise in dealing with them. In theory, therefore, there is an optimal level of formalities (Davis, 1994), complexity (Kaplow, 1995) and technical language where

[3] An insight which dates back to Bentham: Hart, 1973.
[4] See Hart, 1954.

the marginal costs and benefits, so identified, are roughly equal. Lawyers are motivated to engage in excessive formalities, complexities and language density, since they will profit, while the cost is largely borne by their clients. Given the information asymmetry and the principal-agent problem, these outcomes are likely to occur so long as monopoly power over the particular legal culture is preserved.

The sustainability of a legal culture monopoly depends on the relative strength of potential competitive forces. While some form of competition from within the jurisdiction may be envisaged, especially if there are diseconomies of scope[5], interaction with other jurisdictions is likely to play the dominant role in challenging the monopoly. Assuming that there is freedom in the choice of law governing transactions[6], transboundary trade will exert competitive pressures on legal cultures because traders will seek outcomes with the lowest legal costs and those deriving income from legal work connected with the transaction will want their own jurisdiction to be selected.

In this paper we provide a model of these processes based on the balance between the pressure for convergence generated by transboundary trade of goods and services and the costs of adjustment (including rent-seeking). Our first step is to illustrate the idea of legal culture as an equilibrium outcome of a game played by a continuum of jurisdictions. If there is transboundary interaction between different sets of legal rules and practices, there are several possible equilibria and thus different legal cultures emerge and co-exist. Convergence (in the sense of adoption of or adjustment to norms from other sets of legal rules and practices) of legal rules is likely if importing and ad-

[5]As between e.g. public law and private law.

[6]On which, see Ribstein, 1993.

justment costs are low and unlikely if such costs are high. Our model differs somehow from the competitive federalism literature (for example, Romano, 2002) by emphasizing that the pressure for legal change comes from transboundary trade of goods and services rather than mobility. These results are presented and discussed in sections two and three.

In section four, we discuss the implications of a free-riding problem that makes a unique legal culture impossible to emerge. Harmonization of legal rules by a "super-government" or a central authority in order to generate a uniform legal culture could be the response to a coordination failure. However, it could also be a serious policy mistake, depending on the parameters of the model.

Generally speaking the law and economics literature is not positive concerning the merits of unification of law in the US (Ribstein and Kobayashi, 1996) and harmonization of law in Europe (Easterbrook, 1994; Legrand, 1996 and 1999; Mattei, 1998; Ogus, 1999; Linarelli, 2002). Though a cost-benefit analysis can be attempted to assess the efficiency of unification and harmonization (by comparing the reduction in inconsistency, information, litigation, drafting and instability costs with the increase of exit, innovation, experimentation and loss of local variation costs in the words of Ribstein and Kobayashi, 1996), our argument focuses on the existence of coordination costs. The nature of these costs may well justify some harmonization in some areas of law but it may as well protect effectively other areas of law from inefficient harmonization. Also monitoring and enforcement costs play an important role in assessing the efficiency of harmonization, given the incentives for defection.

Section five addresses the question of facilitative versus interventionist law in the context of the model plus other predictions of the model. Final remarks are addressed in section six.

2 A First Simple Model

Suppose there is a large number of countries or jurisdictions, each one with an initial different set of legal rules and practices. Countries are randomly matched while interacting within their productive activities. These transboundary activities are affected by the legal rules and practices of both players. Each country has some willingness to accommodate their partner's legal rules and practices by changing its own legal order. The strategies available to players in this game are $\{W, N\}$, where W stands for *willingness* and N for *no willingness* to change its legal order.

Our definition of willingness to change is somehow related to transplanting. However, transplant is usually perceived as a unilateral change of legal order by which one country imports legal norms from another country. Taking the view and the taxonomy presented by Berkowitz et al. (2003), the transplant effect consists in developing a given legal order by (partially or fully) importing and adopting foreign law and legal practices.

In our model, we allow for the possibility that both countries adjust their legal systems. In fact, *willingness to change* in this model stands for being receptive to accommodating rules and practices from another jurisdiction or to have a flexible position concerning facilitative legal rules and practices. Thus, we prefer to use *willingness to change* as a more general way of looking

at transplants. No transplanting is of course a consequence of *no willingness to change* since it stands for developing a given legal order internally with no influence or concern for outside law and legal practices.

For simplicity, we model a symmetric game where each player has the same set of payoffs. In reality some countries have more influence or more ability to impose their own legal rules and practices, and thus are more protected from the influence of foreign jurisdictions. The countries which are less prone to be influenced are called *origins*, whereas the remaining are called *transplants* according to Berkowitz et al. (2003) and references therein. Which countries are *origins* is a matter of empirical controversy.[7]

When both partners are willing to adjust legal rules and practices, the payoff of each player is $1 - L/2$, where 1 is the payoff (normalized to one) from being able to successfully interact with other countries while L is the total cost of adjusting to other legal rules and practices. The higher is L, the higher is this total cost relatively to the payoff from being able to successfully interact with other countries.

The total cost of adjusting includes: (i) direct cost from acquiring information, importing (e.g., drafting a new law) and learning foreign legal rules and practices; (ii) rent-seeking costs from those who plausibly lose from changing legal rules and are willing to waste resources to avoid those changes; (iii) indirect costs due to the potential loss of legal coherence and potential contradictions within the emergent law given that some areas of the law will be more changed than others.

[7]England, France and Germany are uncontroversial origins. There is some controversy concerning Austria, Denmark, Finland, Norway, Sweden, Switzerland and the United States, and a very serious dispute with respect to Portugal and Spain.

When we say in our model that both jurisdictions are willing to adjust legal rules, it does not mean that both will adopt exactly the same rules or that the emergent law will be the same for both. What we have in mind is that both countries are willing to exert some effort to accommodate or make concessions to foreign jurisdictions, and this effort is costly.

If only one partner is willing to adjust the legal rules of its jurisdiction (i.e., only one partner is willing to exert some effort to accommodate or make concessions), both players get 1 but only the partner introducing changes in their legal order bears the cost L. Finally, if none is willing to adjust its legal rules, then both players get zero since interaction is less successful. Matrix one summarizes the payoffs of the game.

There are four possible situations:

1. Both jurisdictions are willing to adjust and both legal rules and practices converge. We designate this outcome as a convention effect since it could be seen as both parties agreeing on some common legal ground.

2. Jurisdiction A is willing to adjust (imports legal rules) but jurisdiction B is not willing to adjust (exports legal rules). This outcome can be seen as a transplant effect.

3. Jurisdiction B is willing to adjust (imports legal rules) but jurisdiction A is not willing to adjust (exports legal rules). Again we have a a transplant effect, but in the opposite direction.

4. Both jurisdictions are unwilling to adjust their legal orders.

MATRIX 1: GAME

	W	N
W	CONVENTION $1 - L/2, 1 - L/2$	TRANSPLANT $1 - L, 1$
N	TRANSPLANT $1, 1 - L$	NO EFFECT $0, 0$

Notice the coordination problem of adjusting legal rules and practices. Country A would prefer its own set of legal rules and practices to prevail while Country B would prefer its own set of legal rules and practices to prevail. The reason for that is that adjusting is costly. However, if no adjustment takes place, no productive interaction occurs and both get a zero payoff. As a consequence, the equilibria of the game result in different legal cultures prevailing in the long-run.

The solution of the game depends on the costs L being more or less than the payoff 1. In other words, the characterization of legal culture depends on the cost of importing and adjusting to different sets of legal rules and practices relatively to its benefit.

CASE 1 Suppose $L < 1$ (import and adjustment costs are relatively low).

There are two Nash equilibria $< W, N >$ and $< N, W >$ in pure strategies. There is also a mixed strategy equilibrium where country A plays $< W >$ with probability x and plays $< N >$ with probability $1 - x$, and country B plays $< W >$ with probability x and plays $< N >$ with probability $1 - x$. The probability x is given by $2(1 - L)/(2 - L)$ and the probability $1 - x$ is given by $L/(2 - L)$. This type of game in know in game theory as "War of Attrition."

By making use of mixed strategies in population games, we can say that a proportion x of players will choose $< W >$ and $1 - x$ of players will choose $< N >$. As a consequence, the expected payoff of each player is given by $x = 2(1 - L)/(2 - L)$, thus decreasing in L and increasing in v. However notice that this payoff is necessarily less than $1 - L/2$, the payoff that each player would obtain if there were a convention.

Clearly $< W, W >$ Pareto dominates Nash equilibria. In other words, both would be better off with a convention, but they are unable to fully coordinate in order to move there. No country is willing to unilaterally abdicate their own set of legal rules and practices.

CASE 2 Suppose now $L > 1$ (import and adjustment costs are relatively high). There is a unique Nash equilibrium. Since adjustment costs are very high, both countries choose not to import and adjust to other legal rules and practices. This is the usual "Prisoner's Dilemma" situation.

It is not always the case that $< W, W >$ Pareto dominates the unique Nash equilibrium. It will be the case if and only if $1 < L < 2$, that is, import and adjustment costs are relatively high but not that high. Both

players would be better off with a convention if $L < 2$, but they are unable to coordinate in order to move there. No country is willing to unilaterally abdicate their own set of legal rules and practices. Here the inefficiency of the Nash solution is even more dramatic since legal orders do not even converge.

3 A Model of Adaptive Legal Culture

Suppose there are n types of legal cultures. Each type has the same number of countries or jurisdictions. Hence the probability of one country engaged in interaction with a country with similar legal rules and practices is $1/n$, and the probability of being engaged in interaction with a country with different legal rules is $1 - 1/n$.[8]

When engaging with a country with similar legal rules, the payoff is 1 for both players whereas when engaging with a country with different legal rules, the expected payoff is $2(1 - L)/(2 - L)$ if $L < 1$ and zero, otherwise. If countries have different legal rules and practices, when interacting, they engage in the kind of game described in the previous section.

The expected payoff for any given country interacting within productive activities is:

$$\mathcal{V} = 1/n + (1 - 1/n) \max\{2(1 - L)/(2 - L), 0\}$$

We can immediately observe that the expected payoff $\mathcal{V}$ is decreasing in

[8]These probability are approximations. Assume that the number of countries within each group is m. Then, the probability of engaging in interaction with a country with similar legal rules and practices is $(m-1)/(nm-1)$ and the probability of being engaged in interaction with a country with different legal rules is $m(n-1)/(nm-1)$. When $m \to \infty$, we get the probabilities $1/n$ and $1 - 1/n$.

L and in n. Higher costs of import and adjustment and a higher number of different types of legal cultures leave each and every country worse-off.

When $L \geq 1$, the expected payoff for any given country is $1/n$. No pure legal culture emerges, there is always a hybrid culture or a co-existence of n different legal rules and practices.

When $L < 1$, the expected payoff for any given country is $2(1-L)/(2-L)+L/((2-L)n)$. There will be convergence of legal rules and practices but no uniform legal culture will emerge (unless of course $L = 0$). The rationale for that is the following: If there is a chance that one country will be willing to import legal rules, the other partner will not and free-ride. This effect is more important as importing and adjusting legal order becomes more costly, i.e. as L increases. According to our model interpretation, we know that n different legal rules and practices co-exist but they are not as different as they were before interaction.

The loss from not having uniform legal rules and practices across the world is given by $1-\mathcal{V}$. This loss is increasing in L and in n. In other words, each country has more to lose from the fact that there is no uniform legal culture when the costs of import and adjustment are high and when there are more distinctive legal cultures.

We can create an index to measure the degree of distinctiveness of legal rules and practices across the world (hereafter called index of legal distinctiveness, ILD). Define this index as λ. If $L \geq 1$, countries never import or adopt legal rules and practices. In this case, the index $\lambda = n$. If $L < 1$, countries may or may not import or adopt legal rules. They will not with probability $1/n + (1-1/n)(1-x)^2$, due to (i) the probability of interacting

with a country with similar legal rules and practices $(1/n)$, and (ii) interacting with a country with different legal rules and practices but both choosing N $((1-1/n)(1-x)^2)$. In this case the index can be constructed as:

$$\lambda = n[1/n + (1-1/n)(\frac{L}{2-L})^2] = 1 + (n-1)(\frac{L}{2-L})^2$$

The maximal value for ILD is n which takes place when $L \geq 1$ (costs of import and adjustment are too high). The minimal value for ILD is one which takes place when $L = 0$ (costs of import and adjustment are null) or $n = 1$ (there is only one type of legal culture). Hence we know that $1 \leq ILD \leq n$.

Another possible interpretation of the index would be that n is the initial number of distinctive legal cultures whereas λ is a measure of the number of distinctive legal cultures after interaction taking place within productive activities, with $ILD = 1$ meaning full convergence of all legal cultures.[9]

In Table 1 values for ILD are simulated. The first observation is that convergence of legal cultures is more substantial when L is low. However, notice that when L is reduced from one to 2/3, the impact on legal distinctiveness is much more substantial than further reductions.

The second observation is that a reduction in costs of import and adjustment is more important when n is large. In other words, convergence of legal rules and practices seems to be more sensitive to the parameters of the model when the number of distinctive systems is larger. This is an intuitive

[9]By taking a conventional evolutionary approach, we could say that λ is the number of distinctive legal cultures after interaction taking place within productive activities. However, applying evolutionary game theory in this context would raise natural concerns with respect to rationality and strategies.

result: more convergence is observed if there are many different legal cultures than when the number of distinctive legal cultures is small.

A final observation is that if L is low, say 1/3, then legal distinctiveness does not seem to depend too much on the number of initial distinctive legal cultures. In fact, it varies from 1.04 (when $n = 2$) to 1.56 (when $n = 15$). This is an interesting result in terms of EU law: If import and adjustment costs are low, legal rules and practices seem to converge without being too sensitive to the number of different legal and judicial systems co-existing within the Union.

These results are confirmed by graphical representation, see Figures 1 and 2. In Figure 1, we can see how legal distinctiveness varies with the number of initial distinctive legal cultures, and how sensitive this variation is with respect to costs of import and adjustment. In Figure 2, we plot legal distinctiveness against costs of adjustment, and see how convergence is higher for low levels of L when the number of initial distinctive legal cultures is high or low.

4 Implications for Harmonization

Suppose that a central authority or a "super-government" exists and could harmonize law by imposing legal rules and practices, which corresponds to imposing $< W, W >$ on all players. The immediate consequence is that both players have the same payoff $1 - L/2$ and share the costs, thus avoiding the free-rider problem we have analyzed in section two.

A consequence of imposing $< W, W >$, the expected payoff for any given

country interacting within productive activities is:

$$\mathcal{V} = 1/n + (1 - 1/n)(1 - L/2)$$

If adjustment costs are low, $L < 2$, harmonization can make everyone better-off. Why? Because it essentially provides a coordination mechanism to improve welfare. We should see harmonization as a response to market failure generated by a coordination deadlock. However, if adjustment costs are high, $L > 2$, harmonization is Pareto inefficient, that is, it generates a loss to both players.

The country loss from harmonization when $L > 2$ is given by $(1 - 1/n)(1 - L/2)$. Hence as n increases (that is, as there are more distinctive legal cultures affected by the harmonization process), the higher is the loss imposed by harmonization to all countries.

However, if $1 < L < 2$, the country gain from harmonization is also given by $(1 - 1/n)(1 - L/2)$. Consequently as n increases, the gain imposed by harmonization becomes more substantial. A similar result applies when $L < 1$ even though the gain is not so striking since there was already some convergence.

We should nevertheless take into account that $< W, W >$ is not a Nash equilibrium. Thus, harmonization forces players to coordinate but at the same time one must make sure that this coordination does take place since the individual incentives point in the opposite direction (due to the free-riding problem). The inclusion of monitoring and enforcement costs affects the efficiency condition of harmonization. We expect the upper limit on L to guarantee efficient harmonization to be strictly below 2 and eventually less

than 1 if monitoring and enforcement costs are substantially high.

5 Discussion

One possible interpretation for L being higher or low can be drawn from the concepts of facilitative and interventionist law, referred to in section 1. For the same benefit, we expect L to be lower for facilitative law because essentially it relates to those areas of the law which mainly underpin interactions between different jurisdictions. In constrast, interventionist law tends to be largerly directly to domestic outcomes; therefore L is here typically higher. Alternatively, for the same cost, we expect the benefit from adjusting legal rules and practices to be higher for those areas under facilitative law than for those under interventionist law. Recall that L is a cost measure in relative terms since the value of interaction is normalized to one. As L increases, we can notice that **CASE 1** is less likely than **CASE 2**, thus deriving some implications:

a. Convergence of facilitative law is more likely than convergence of interventionist law.

This result is consistent with previous analysis (Ogus 1999, 2002). The willingness to import and adjust legal norms is determined by the relative gains of transboundary interaction, these gains being more substantive for areas of law that affect more directly this interaction.

b. Facilitative law should exhibit less variance across jurisdictions than interventionist law.

ILD should be lower for facilitative law than for interventionist law. This corollary seems to be supported by evidence that variations across corporate law and financial markets regulation are less substantial than variations across other legal institutions, particularly procedural law (La Porta et al., 1997, 1998, and 2003; Coffee, 1999; Chong and Zanforlin, 2000; Mahoney, 2001; Beck, Demirguc-Kunt and Levine, 2003 and 2004; Berkowitz et al., 2003; Rajan and Zingales, 2003; Djankov et al., 2003b and 2003c; Pistor et al., 2003a and 2003b).

c. Harmonization is more likely to be an improvement for facilitative law than for interventionist law.

This result seems to be supported by European reality, where major steps for harmonization have been taken primarily in facilitative law. Nevertheless, to some extent, it poses doubts concerning current European policy that aims partial harmonization of interventionist law by the imposition of minimum standards (Farr, 1996; Joerges, 2002).

d. Harmonization is more likely to be an improvement when governments cannot easily coordinate legal policies and should target areas of facilitative law where interstate coordination is more difficult.

This result comes directly from understanding the importance of the free-riding problem considered in the model. An immediate example to support this result is tax law. Our model predicts that corporate tax regimes will be less different across countries than income tax for two reasons. The transboundary effect is certainly more important for corporate tax than individual tax purposes. At the same time, adjustment costs are probably higher for income tax compared with corporate tax. Hence, while we expect some

convergence of corporate tax law, the same would not apply to income tax law.

e. Harmonization is less likely to be an improvement when measurement problems with respect to understanding and comparing legal changes are more substantial.

Monitoring and enforcement are more costly when the authority harmonizing is not able to easily measure and compare changes. European reality once more provides evidence: it has been easier to unify institutions and minimum legal standards or requirements than substantive and extensive legal rights and obligations.

f. Harmonization is more likely to be an improvement for areas of the law where path dependence is important.

Path dependence reduces the likelihood of convergence even if transboundary gains are significant. Harmonization could replace convergence and overcome the path dependence problem. However, we should distinguish pure path dependence from losing legal intrinsic coherence (a cost taken into account by L in the model). Targeting path dependence should be an objective if it prevents the development of efficient legal institutions and law (Glaeser and Shleifer, 2002; Heine and Kerber, 2002).

g. Harmonization is more likely to be achieved by formal legalist reform (which does not always change the practice of the law) while convergence occurs spontaneously (with real effect on legal practices).

Opposition to such symbolic changes of the law is usually not as strong as opposition to real changes in legal practices. Compliance with formal

changes is achieved at a lower cost than compliance with real changes. Arguments against real changes usually include the need for understanding the role of national law, cultural identity, and national values as opposed to internalization of legal practice where the international market ends up ruling the law and national identity is consequently lost (Spar, 1997).

Monitoring and enforcement costs are expected to be lower for formal changes than for real changes of legal practices. Though not so much welfare enhancing, our model predicts that harmonization at a formal level is more observable than at the practical level. In fact, Mattei and Monti (2001) argue that for improving legal culture (a genuine cosmopolitan legal culture in their own words) a global jurist perspective is currently required, capable of deconstructing the formalities and understanding the different practices.

6 Final Remarks

Previous literature has recognized the importance of competition in the supply of legal rules as a major determinant of the evolution of law. The pressure generated by migration to more favorable jurisdictions and "network externalities" have been used to explain convergence and the so-called "transplant effect."

In this paper, we have used game theory to illustrate why, even in a context where most jurisdictions may be willing to adjust and integrate legal rules and practices, we expect the emergence and co-existence of different legal cultures.

Our reasoning relies on a free-riding problem: Both countries, A and B,

would prefer their own set of legal rules and practices to prevail. In other words, adjusting legal rules and practices has a coordination problem that affects the equilibria.

Mandatory harmonization of legal rules in order to generate a uniform legal culture could be the response to a coordination failure, thus solving the free-riding problem. However, it could also be a serious policy mistake (e.g., if convergence is absent due to very high costs of adjustment). Different legal cultures may co-exist due to different preferences as well as due to technological constraints (in this context, institutional design and rent-seeking). Harmonization should tackle the latter but not the former.

At the same time, individual incentives go in the direction of cheating by derogating from harmonization, thus creating the need for monitoring and punishment of defections that in turn may raise the costs of imposing harmonization.

Our paper has important implications at both empirical and policy levels. Empirically, we present a couple of corollaries that presumably can be tested. We also develop an index of legal distinctiveness that can be useful to analyze the evolution of legal culture across the world. At the policy level, we signal the fact that harmonization of legal systems is probably efficient for facilitative law but not for interventionist law, thus posing serious doubts as to some current European efforts in these matters.

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TABLE 1
SIMULATION OF ILD

L↓ n→	**1**	**2**	**3**	**4**	**5**	**10**	**15**
0	1	1	1	1	1	1	1
0.333	1	1.04	1.08	1.12	1.16	1.36	1.56
0.5	1	1.11	1.22	1.33	1.44	2	2.56
0.667	1	1.25	1.5	1.75	2	3.25	4.51
1	1	2	3	4	5	10	15

FIGURE 1
ILD AND n

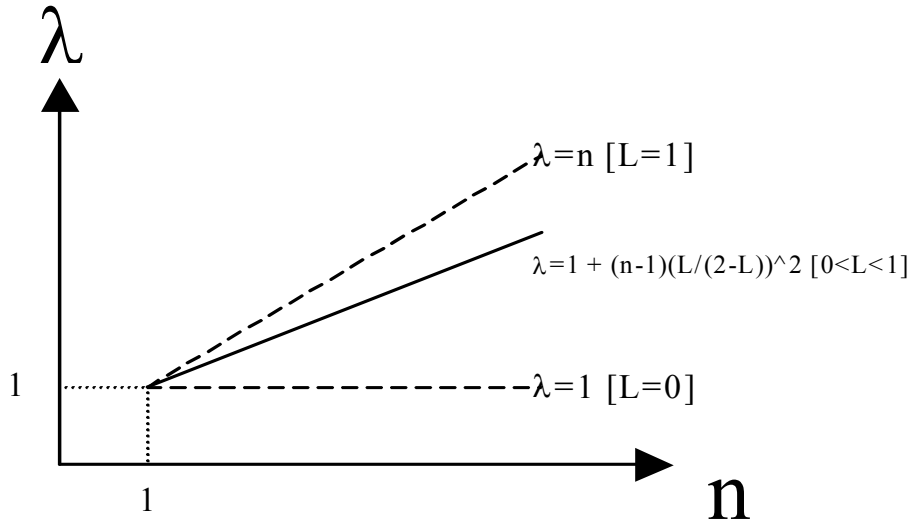

FIGURE 2
ILD AND L