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# The deterrence of international crimes : a microeconomic and econometric analysis

Yann Lecorps

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ÉCOLE DOCTORALE D'ÉCONOMIE PANTHÉON-SORBONNE  
UNIVERSITÉ PARIS 1 PANTHÉON-SORBONNE

Centre d'Économie de la Sorbonne

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**Yann LECORPS**

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**LA DISSUASION DES CRIMES  
INTERNATIONAUX : UNE ANALYSE  
MICROÉCONOMIQUE ET ÉCONOMÉTRIQUE**

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# Résumé

Cette thèse est une contribution à la littérature en économie du droit. Elle s'intéresse au phénomène de dissuasion dans un contexte de criminalité pénale internationale. Chaque chapitre explore, théoriquement ou empiriquement, une question liée à la dissuasion de cette criminalité encore peu étudiée. Le premier chapitre est une contribution théorique qui s'intéresse à la nature organisée de la criminalité pénale internationale. Cette caractéristique organisée soulève une question d'allocation des ressources de la politique répressive entre les leaders d'organisations et les autres membres. Le résultat principal de ce chapitre suggère qu'au delà d'un certain niveau de dommage causé par la criminalité pénale internationale, la politique répressive optimale du décideur public implique d'investir des ressources dans la détection de tous les criminels de l'organisation. Le deuxième chapitre est une contribution empirique qui s'intéresse à l'effet dissuasif de la Cour pénale internationale (CPI). L'inclusion d'effets fixes interactifs dans les modèles permet de fournir une estimation de l'effet dissuasif de la CPI plus crédible que les estimations fournies par la littérature jusqu'à présent. Il est montré que la CPI génère un effet dissuasif à l'égard des groupes non gouvernementaux dans les pays où le niveau de criminalité pénale est élevé et les institutions sont fragiles. Dans les pays où cette criminalité est faible et les institutions fortes, la CPI ne génère pas d'effet dissuasif. Le troisième chapitre est une contribution théorique s'intéressant à l'apport des organisations non gouvernementales (ONG) à la dissuasion de la criminalité pénale internationale. Dans un contexte où le gouvernement a des intérêts communs avec les criminels internationaux, la présence d'une ONG qui surveille et dénonce les crimes est socialement bénéfique si le coût de son activité sur le gouvernement est suffisamment élevé. La radicalité de l'ONG dans ce contexte est contre-productive.

**Mots clés :** économie du crime, dissuasion, criminalité pénale internationale, droit pénal international, Cour pénale internationale

# Abstract

This thesis is a contribution to the Law and Economics literature. It focuses on the phenomenon of deterrence in an international crime setting. Each chapter explores, theoretically or empirically, a question on this topic that has received little attention so far in the literature. The first chapter is a theoretical contribution, focusing on the organized nature of international crime. This organized feature raises an issue of allocation of law enforcement policy resources among members of the organization. The central finding of this chapter suggests that above a certain level of harm caused by international crime, the optimal law enforcement policy for the policymaker involves investing resources in detecting all criminals of the organization. The second chapter is an empirical contribution, focusing on the deterrent effect of the International Criminal Court (ICC). The inclusion of interactive fixed effects in the models provides a more credible estimate of the deterrent effect of the ICC than the estimates provided by the literature so far. It is shown that the ICC provides a deterrent effect on non-governmental groups in countries with high levels of international crime and weak institutions. In countries with low levels of international crime and strong institutions, the ICC does not generate a deterrent effect. The third chapter is a theoretical contribution, focusing on the contribution of non-governmental organizations (NGOs) to the deterrence of international crime. In a context where the government has common interests with international criminals, the presence of an NGO that monitors and reports international crimes is socially beneficial if the cost of its activity on the government is high enough. NGO radicalism in this context is counterproductive.

**Keywords :** economics of crime, deterrence, international crime, international criminal law, international criminal court

THE CROWD: A witch! We found a witch! We got a witch! We found a witch!

We've got a witch! Burn her! Burn her!

A MAN IN THE CROWD: We have found a witch. May we burn her?

THE CROWD: Burn her! Burn her!

SIR BEDEVERE: How do you know she is a witch?

THE PRETENDED WITCH: I am not a witch!

SIR BEDEVERE: But you are dressed as one.

THE PRETENDED WITCH: They dressed me up like this.

THE CROWD: We didn't!

THE PRETENDED WITCH: And this isn't my nose. It's a false one.

SIR BEDEVERE: Well?

A MAN IN THE CROWD: Well, we did do the nose.

SIR BEDEVERE: The nose...?

A MAN IN THE CROWD: And the hat. But she is a witch.

THE CROWD: Burn her! Burn her!

SIR BEDEVERE: Did you dress her up like this?

A MAN IN THE CROWD: No. Yes. Yes, a bit. She has got a wart.

SIR BEDEVERE: What make you think she is a witch?

A MAN IN THE CROWD: Well, she turned me into a newt.

SIR BEDEVERE: A newt?

A MAN IN THE CROWD: I got better.

ANOTHER MAN IN THE CROWD: Burn her anyway!

THE CROWD: Burn her! Burn her!

SIR BEDEVERE: Quiet! There are ways of telling whether she is a witch.

A MAN IN THE CROWD: Are there? What are they? Tell us. Do they hurt?

SIR BEDEVERE: Tell me : what do you do with witches?

THE CROWD: Burn them! Burn them!

SIR BEDEVERE: What do you burn apart from witches?

A MAN IN THE CROWD: More witches!

ANOTHER MAN IN THE CROWD: Wood.

SIR BEDEVERE: So, why do witches burn?

A MAN IN THE CROWD: Because they are made of wood?

SIR BEDEVERE: Good! So, how do we tell whether she is made of wood?

A MAN IN THE CROWD: Build a bridge out of her!

SIR BEDEVERE: Can you not also make bridges of stone?

THE CROWD: Oh, yeah...

SIR BEDEVERE: Does wood sink in water?

A MAN IN THE CROWD: No. It floats!

ANOTHER MAN IN THE CROWD: Throw her into the pond!

SIR BEDEVERE: What also floats in water?

A MAN IN THE CROWD: Bread!

ANOTHER MAN IN THE CROWD: Apples!

ANOTHER MAN IN THE CROWD: Very small rocks!

OTHER MEN IN THE CROWD: Cider! Gravy! Cherries! Mud! Churches! Lead!

KING ARTHUR: A Duck!

SIR BEDEVERE: Exactly! So logically...

A MAN IN THE CROWD: If she...weighs the same as a duck...she is made of wood!

SIR BEDEVERE: And, therefore...

A MAN IN THE CROWD: A witch!



THE CROWD: A witch! A witch!

SIR BEDEVERE: We shall use my largest scales! Right. Remove the supports!

THE CROWD: A witch! A witch!

SIR BEDEVERE: It's a fair cop!

THE CROWD: Burn her! Burn her!

SIR BEDEVERE: Who are you, who are so wise in the ways of science?

KING ARTHUR: I am Arthur, King of the Brittons.

Terry Gilliam and Terry Jones (1975), "Monty Python and the Holy Grail"<sup>1</sup>

---

1. The scene of the witch is available here : <https://www.youtube.com/watch?v=Ii68tPIiZ0o>

# Remerciements

C'est avec l'envie de faire partie de ce *tout petit monde* si bien décrit par Lodge (1984) et Parisi (2020) que j'ai commencé cette thèse avec un grand enthousiasme à la rentrée universitaire 2017/2018. Au terme de quatre années stimulantes, jalonnées de défis mais aussi de belles rencontres et voyages, mon enthousiasme est toujours le même et il me tarde de continuer à progresser et à entreprendre de nouveaux projets de recherche.

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- "Est-ce que je vous ai fait mal ?
- Oui, assez.
- Bien. Mais est-ce que j'ai fait mal à votre famille ?
- Non, je ne pense pas.
- Bon. Et maintenant si je vous tue est-ce que je ferai du mal à votre famille ?
- Oui probablement.
- Bien. C'est ça la question de recherche de votre mémoire."

J'ai toujours la même admiration pour son talent à reformuler en quelques secondes un problème complexe en une question simple et incisive. Pierre Kopp a été un directeur

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# Chapitre d'introduction

## 0.1 Des crimes et criminels pénaux internationaux

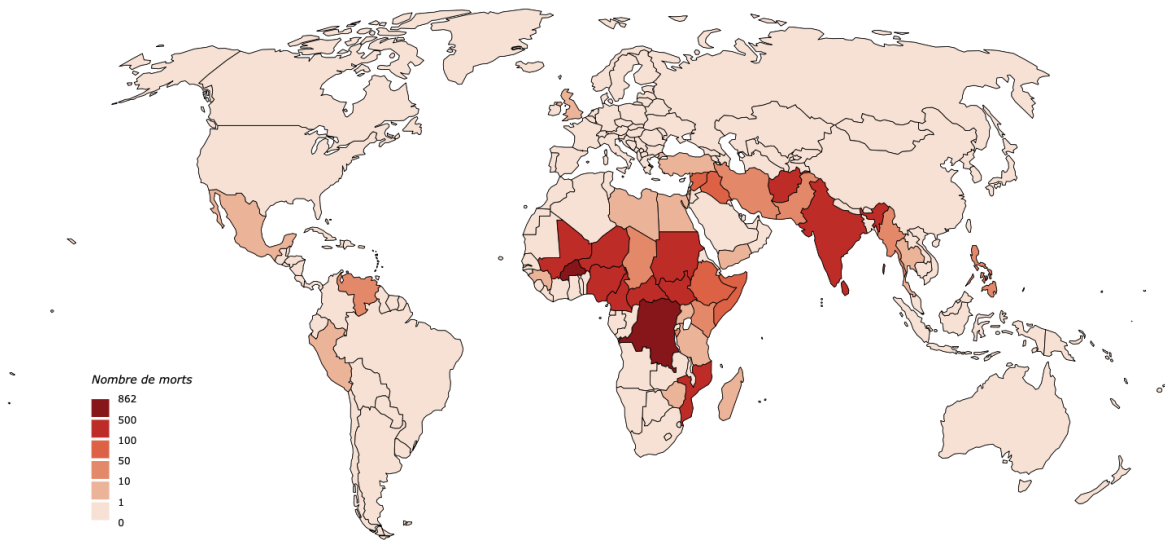
### 0.1.1 Enjeux, caractéristiques et actualités de la criminalité pénale internationale

#### *Criminalité d'évènements rares de masse et criminalité systémique*

Les crimes pénaux internationaux sont qualifiés comme tels et réprimés pour la première fois à la suite des atrocités (Levi, 1987) commises par le régime nazi durant la seconde guerre mondiale. Ces crimes conduiront, entre autres souffrances, au massacre d'entre 5,9 et 6,2 millions de victimes juives (Bensoussan, 2014). Contrairement à une idée répandue, la criminalité internationale n'est pas uniquement une criminalité de masse survenant lors de conflits majeurs de l'histoire. Si les génocides Rwandais et d'ex-Yougoslavie sont des crimes majeurs de la seconde moitié du XXème siècle, la criminalité pénale internationale comprend également une composante structurelle qui fait chaque année, à bas bruit, des milliers de victimes à travers le monde. Le *Department of Peace and Conflict Research* de l'Université d'Uppsala fournit une mesure d'une partie de cette criminalité en enregistrant le nombre de civils tués intentionnellement par des gouvernements et des groupes non-gouvernementaux. Entre 1989 et 2019, le *UCDP Georeferenced Event Dataset (GED)* (Sundberg and Melander (2013), Högladh (2020)) répertorie plus de 800 000 victimes civiles, soit en moyenne plus de 25 000 chaque année sur les trois dernières décennies. La carte de la figure 1, donne un aperçu pour l'année 2019 de la répartition par zone géographique de ce phénomène qui touche particulièrement l'Afrique centrale, le Moyen-Orient et l'Asie du sud. Il faut par ailleurs ajouter aux tueries de civils d'autres crimes internationaux encore difficilement mesurés comme la torture, l'esclavage et les crimes sexuels. La criminalité pénale internationale est donc systémique et génère chaque année un dommage social extrêmement lourd. En ce sens, les outils théoriques et empiriques de l'analyse économique peuvent contribuer à approfondir la connaissance de ce phénomène et évaluer les politiques publiques répressives susceptibles de l'enrayer.



FIGURE 1: Civils tués intentionnellement par un gouvernement ou groupe non-gouvernemental en 2019 dans le monde



### *Criminalité organisée*

Ces crimes sont commis par un large éventail d'organisations puisque sur la période 1989-2019, les données GED répertorient 281 gouvernements et groupes non gouvernementaux ayant tué des civils de manière intentionnelle avec une récurrence et une intensité très hétérogènes. La récurrence va pour certains groupes d'un événement isolé sur les trois dernières décennies à près de 3000 événements en quelques années par exemple pour l'organisation État-Islamique. S'agissant de l'intensité, elle varie pour certains groupes d'une dizaine de victimes civiles enregistrées entre 1989 et 2019 à plus de 500 000 pour le gouvernement rwandais lors du génocide entrepris par ce dernier dans les années 1990. Cette criminalité est organisée et implique généralement pour les gouvernements toute la chaîne de commandement allant des plus hauts-responsables politique et militaire aux simples fonctionnaires ou soldats. Les organisations non gouvernementales sont quant à elles particulièrement hétérogènes (Jo, 2015) dans leurs formes et les membres qui les composent. Elles peuvent réunir des individus sur la base d'une cause politique ou religieuse, sur la base de rémunérations lucratives ou encore enrôler de force une partie de leurs membres. En tout état de cause, du point de vue de l'analyse économique cet aspect organisé de la criminalité pénale internationale soulève une question : quelle doit-être l'allocation des ressources de la politique répressive entre les leaders d'organisation et les exécutants ?

### *Core crimes*

Trois *core crimes* structurent actuellement le droit pénal international : le crime de génocide, les crimes contre l'humanité et les crimes de guerre. Chacun requiert un contexte précis pour être qualifié et regroupe un ensemble de crimes spécifiques qui peuvent se recouper. Les définitions des *core crimes* sont énoncées par le Statut de Rome, traité fondateur de la Cour pénale internationale (CPI) et ratifié par 123 États dans le monde en août 2021. Seul le crime d'agression, ajouté par amendement au Statut en 2010, à ce jour relativement marginal dans la mise en oeuvre du droit pénal international<sup>1</sup> ne sera pas discuté ici. Il concerne les actes d'agression violant la Charte des Nations Unies et sa définition est disponible à l'article 8*bis* du Statut.

#### **0.1.2 Crime de génocide**

L'article 6 du Statut de Rome qui définit le crime de génocide dispose :

*"Aux fins du présent Statut, on entend par crime de génocide l'un quelconque des actes ci-après commis dans l'intention de détruire, en tout ou en partie, un groupe national, ethnique, racial ou religieux, comme tel :*

- a) *Meurtre de membres du groupe ;*
- b) *Atteinte grave à l'intégrité physique ou mentale de membres du groupe ;*
- c) *Soumission intentionnelle du groupe à des conditions d'existence devant entraîner sa destruction physique totale ou partielle ;*
- d) *Mesures visant à entraver les naissances au sein du groupe ;*
- e) *Transfert forcé d'enfants du groupe à un autre groupe."*

#### ***Origines de la notion de crime de génocide***

C'est à Raphael Lemkin, juriste d'origine polonaise, que l'on doit la notion de crime de génocide. En exil aux États-Unis à partir des années quarante, Lemkin travaille sur son livre *Axis Rule in Occupied Europe* (Lemkin, 1944) qui documente les différents

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1. La CPI ne l'a encore jamais utilisé.

aspects du système d'occupation<sup>2</sup> du régime nazi en Europe. Dans cet ouvrage Lemkin consacre un chapitre au génocide, qu'il définit comme "la destruction d'une nation ou d'un groupe ethnique"<sup>3</sup>. Les crimes nazi sont selon lui la démonstration que certains crimes de masse ciblent le groupe en tant qu'entité. Il devient alors essentiel de créer le crime de génocide qui qualifiera clairement l'intention de faire disparaître, au travers l'extermination d'individus, l'identité d'un groupe qu'il soit national, ethnique ou religieux. C'est *in extremis*, au terme d'une lutte de plusieurs années, que Lemkin réussit à faire figurer le terme génocide sur l'acte d'accusation du procès de Nuremberg. Le crime et sa définition sont définitivement reconnus par la communauté internationale avec la *Convention pour la prévention et la répression du crime de génocide* adoptée par l'assemblée générale des Nations Unies en 1948<sup>4</sup>. C'est cette exacte définition que l'on trouve ici à l'article 6 du Statut de Rome. Cependant comme le note Fernandez (2020), malgré une définition qui recueille un consensus large et durable dans le temps par comparaison aux autres crimes internationaux, le crime de génocide reste difficile à caractériser en pratique.

### ***Des situations de crime de génocide***

Parmi les trente affaires initiées par la Cour pénale internationale<sup>5</sup> depuis sa création il y a près de vingt ans, seul l'ancien président du Soudan, Omar Hassan Ahmad Al Bashir, fait l'objet de poursuites pour génocide. Il est mis en cause, entre autres, pour des actes d'extermination, torture et esclavage sexuel commis par les forces gouvernementales soudanaises et leurs groupes alliés sur des populations civiles appartenant principalement aux groupes Four, Massalit et Zaghawa. Ces faits ayant eu lieu à partir de 2003 au Darfour dans le cadre d'une politique dite "anti-insurrectionnelle" sont documentés dans un rapport d'enquête des Nations Unies (Cassese et al., 2005). Omar Hassan Ahmad Al Bashir étant actuellement en fuite, la Cour pénale internationale n'a à ce jour prononcé aucune condamnation pour génocide.

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2. Il y détaille notamment les techniques de contrôle de l'administration, de la police, des tribunaux, de la propriété et des forces de travail mis en place par les Nazis.

3. En se basant sur l'exemple allemand, il décrit "les techniques de génocide" aux niveaux politique, social, culturel, économique, biologique, physique, religieux et moral.

4. <https://www.un.org/fr/genocideprevention/genocide-convention.shtml>

5. A la date du 11 avril 2021.

Le tribunal pénal international pour le Rwanda (TPIR), premier tribunal international à reconnaître le viol comme moyen de perpétrer le génocide, a prononcé de nombreuses condamnations pour crime de génocide. C'est le cas du préfet de la préfecture de Kibuye, Clément Kayishema, condamné à la prison à perpétuité en 1999 pour des massacres de plusieurs dizaines de milliers de civils Tutsi. Méthodiquement rassemblés dans des églises et au stade Kibuye alors qu'ils fuient les massacres et pillages de leurs habitations, les populations Tutsi seront massacrées en plusieurs phases successives à la mi-avril 1994 sous la supervision de Kayishema.

### 0.1.3 Crimes contre l'humanité

L'article 7 du Statut de Rome définissant les crimes contre l'humanité dispose :

*"Aux fins du présent Statut, on entend par crime contre l'humanité l'un quelconque des actes ci-après lorsqu'il est commis dans le cadre d'une attaque généralisée ou systématique lancée contre toute population civile et en connaissance de cette attaque :*

- a) *Meurtre ;*
- b) *Extermination ;*
- c) *Réduction à l'esclavage ;*
- d) *Déportation ou transfert forcé de population ;*
- e) *Emprisonnement ou autre forme de privation grave de liberté physique en violation des dispositions fondamentales du droit international ;*
- f) *Torture ;*
- g) *Viol, esclavage sexuel, prostitution forcée, grossesse forcée, stérilisation forcée ou toute autre forme de violence sexuelle de gravité comparable ;*
- h) *Persécution de tout groupe ou de toute collectivité identifiable pour des motifs d'ordre politique, racial, national, ethnique, culturel, religieux ou sexiste [...] ;*
- i) *Disparitions forcées de personnes ;*
- j) *Crime d'apartheid ;*

*k) Autres actes inhumains de caractère analogue causant intentionnellement de grandes souffrances ou des atteintes graves à l'intégrité physique ou à la santé physique ou mentale."*

### ***Origines de la notion de crimes contre l'humanité***

C'est à Hersch Lauterpacht, dont le destin croisé avec Raphaël Lemkin est retracé par Sands (2017), que l'on doit la création de la notion de crimes contre l'humanité. Si Lemkin veut fournir avec la notion de génocide une protection aux groupes, Lauterpacht quant à lui veut placer la protection des individus au dessus de la souveraineté des États. Dans un article, Lauterpacht (1943) écrit : *"the sovereign national State, whether or not it be the permanent form of the political organization of man, is not an end into itself, but the trustee of the welfare and of the final purpose of man. [...] it would be for the international society to ensure the fulfilment of that trust through a fundamental enactment-an International Bill of the Rights of Man-conceived not as a declaration of principles, but as part of positive law."* Le chef d'accusation de crimes contre l'humanité est l'un des quatre chefs retenu dans l'accord de Londres<sup>6</sup> du 8 août 1945 qui met en place le tribunal militaire international de Nuremberg (TMIN). Une évolution est notable en comparant la définition issue de cet accord et la définition de l'article 7 : le crime d'apartheid et les crimes sexuels sont désormais explicitement reconnus comme des crimes contre l'humanité.

### ***Des situations de crimes contre l'humanité***

Dès octobre 1946, le TMIN prononce les premières condamnations pour crimes contre l'humanité de l'histoire. Parmi elles, Hans Frank, gouverneur général des territoires polonais occupés à partir d'octobre 1939 qui plaida pourtant "non-coupable" au procès. Les comptes rendus d'entretiens du psychiatre Goldensohn (2005) éclairent la personnalité de Frank, son rapport complexe avec sa responsabilité et sa culpabilité dans les crimes nazis. Dès sa prise de fonction il supervise la persécution des civils polonais et des juifs et déclare<sup>7</sup> : *"We must annihilate the Jews, wherever we find them and wherever it is possible, in order to maintain there the structure of the Reich*

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6. Disponible ici : [https://www.un.org/fr/genocideprevention/documents/A\\_CN.4\\_5-FR.pdf](https://www.un.org/fr/genocideprevention/documents/A_CN.4_5-FR.pdf)

7. Disponible ici : [https://www.loc.gov/rr/frd/Military\\_Law/pdf/NT\\_Vol-I.pdf](https://www.loc.gov/rr/frd/Military_Law/pdf/NT_Vol-I.pdf)

*as a whole*". Les massacres et déportations qu'il supervisa ou exécuta jusqu'en 1945 entraînèrent la mort d'au moins trois millions de juifs dans la région. Hans Frank fut condamné à mort par pendaison et exécuté le 16 octobre 1946.

Plus récemment, à partir de 2007, les chambres extraordinaires au seins des tribunaux cambodgiens (CETC), pour la poursuite des crimes commis pendant la période du Kampuchéa Démocratique deviennent opérationnelles. Dans le dossier n°001, Kaing Guek Eav *alias* Duch, fut poursuivi pour avoir supervisé en tant que directeur du centre de torture S-21 l'élimination de membres du régime des Khmers rouges soupçonnés de trahison envers la révolution. Dans un premier temps coopératif et reconnaissant pour une large part sa culpabilité dans les atrocités commises à S-21, il se rétracte subitement et demande l'acquittement (Roux, 2016). Il est cependant reconnu coupable de crimes contre l'humanité et condamné en première instance à trente cinq ans d'emprisonnement puis définitivement en appel à la prison à perpétuité en 2012<sup>8</sup>.

#### 0.1.4 Crimes de guerre

L'article 8 du Statut de Rome définissant les crimes de guerre dispose :

*"Aux fins du Statut, on entend par "crimes de guerre" :*

- a) *Les infractions graves aux Conventions de Genève du 12 août 1949 [...];*
- b) *Les autres violations graves des lois et coutumes applicables aux conflits armés internationaux dans le cadre établi du droit international [...];*
- c) *En cas de conflit armé ne présentant pas un caractère international, les violations graves de l'article 3 commun aux quatre Conventions de Genève du 12 août 1949 [...];"*

#### ***Origines de la notion de crimes de guerre***

Le chef d'accusation de crimes de guerre est l'une des incriminations retenues par les alliés au procès de Nuremberg. Défini dans l'accord de Londres comme *"les violations des lois et coutumes de la guerre"*, sa définition dans le Statut de Rome fait désormais

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8. Feuille d'information disponible ici : <https://eccc.gov.kh/fr/node/66>

directement référence aux Conventions de Genève du 12 août 1949 qui portèrent notamment création d'une convention protégeant les civils. Les Conventions de Genève sont un ensemble de règles internationales, applicables lors des conflits, qui protègent les non-combattants qu'ils soient prisonniers, blessés, ou civils. Les crimes de guerre sont essentiellement caractérisés par la violation de ces conventions.

### ***Des situations de crimes de guerre***

Si l'expression "crimes de guerre" n'est pas explicitement énoncé dans le Statut du tribunal pénal international pour l'ex-Yougoslavie (TPIY), les articles 2 et 3 déclarent le tribunal compétent concernant "*les infractions graves aux Conventions de Genève de 1949*" ainsi que les "*violations des lois et coutumes de la guerre*". Le TPIY a rendu ses derniers jugements fin 2017, parmi lesquels son dernier jugement en première instance, celui de Ratko Mladić, commandant de l'état major de l'armée de la Bosnie-Herzégovine. Ce dernier, arrêté après seize ans de cavale<sup>9</sup>, est poursuivi notamment pour avoir bombardé la population civile de Sarajevo et pour le meurtre de plus de sept mille hommes et jeunes garçons musulmans de la ville Srebrenica. Mladić a été condamné à la prison à perpétuité en première instance et une procédure d'appel est actuellement en cours devant le mécanisme international appelé à exercer les fonctions résiduelles des tribunaux pénaux internationaux.

En 2012, dix ans après sa mise en place, la Cour pénale internationale prononce la première condamnation de son histoire à l'encontre de Thomas Lubanga pour crimes de guerre. Lubanga est le fondateur et président du groupe rebelle l'Union des Patriotes Congolais (UPC) et de sa branche armée, la Force Patriotique pour la Libération du Congo (FPLC) à sa création au début des années 2000. Dans le cadre d'un conflit interne à la République Démocratique du Congo, ce groupe non-gouvernemental a formé l'unité spéciale des "kadogo" composée d'enfants soldats de moins de quinze ans. L'enrôlement d'enfants soldats constituant un crime de guerre, Lubanga a été condamné à quatorze ans de prison.

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9. [https://www.lexpress.fr/actualite/monde/comment-la-cavale-de-mladic-a-pris-fin\\_997110.html](https://www.lexpress.fr/actualite/monde/comment-la-cavale-de-mladic-a-pris-fin_997110.html)

## 0.2 Des justices pénales internationales

### 0.2.1 Enjeux, caractéristiques et actualités de la justice pénale internationale

#### *Une justice à l'origine extra-nationale, ad hoc et ex post*

La justice pénale internationale est mise en oeuvre pour la première fois il y a soixante quinze ans par les pays alliés vainqueurs de la seconde guerre mondiale. Les États-Unis, la Russie, le Royaume-Uni et la France aboutissent à un consensus (Alexander, 2006) sur la création du tribunal militaire international de Nuremberg (TMIN) ayant compétence pour juger les criminels nazis, perdants du conflit. Ce modèle de justice internationale, *ex post* et *ad hoc*, a depuis continué à être utilisé même s'il tend à se marginaliser. La dimension purement extra-nationale d'une justice mise en oeuvre par les vainqueurs d'un conflit ou par l'Organisation des Nations Unies (ONU) tend quant à elle à disparaître depuis le début des années 2000. En vert sur la carte de la figure 2, les tribunaux pénaux internationaux (TPI) mis en place en Allemagne, au Japon, au Rwanda et en ex-Yougoslavie sont les quatre premières et quatre dernières juridictions à la fois extra-nationales, *ad hoc* et *ex post* à la situation de crime.

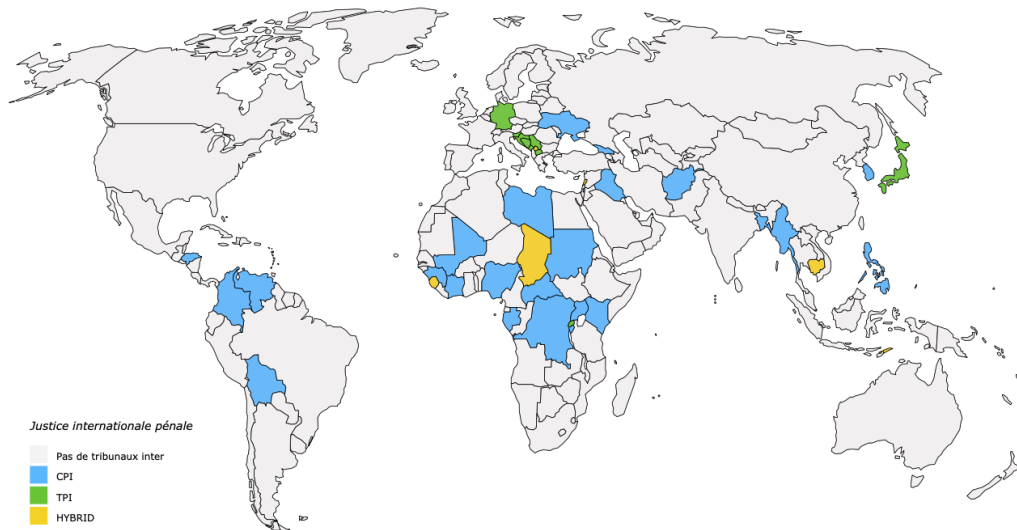
#### *Les tournants : implication des États et permanence*

Le début des années 2000 est marqué par un double tournant dans la mise en oeuvre de la justice pénale internationale. Le premier est une implication croissante des États qui se matérialise notamment par la création de tribunaux co-administrés par l'ONU et les pays où se produisent les situations de crime. Ces tribunaux hybrides, en jaune sur la carte de la figure 2, ont été mis en place au Kosovo, au Sierra Leone, au Tchad, au Liban, au Cambodge et au Timor oriental. Dans la même veine, l'entrée en vigueur en 2002 de la Cour pénale internationale après ratification par 85 États du Statut de Rome illustre cette implication grandissante des États. La CPI incarne par ailleurs le second tournant prit par la justice pénale internationale, celui de la permanence. En effet, si le Statut de Rome met en place la première cour permanente de l'histoire, il



créée aussi le mécanisme de complémentarité avec les États-parties dont l'objectif est de pousser chaque État à mettre en oeuvre lui-même et de façon systématique la justice pénale internationale.

FIGURE 2: Pays où les juridictions internationales pénales ont été actives depuis 1946



### *Une mise en oeuvre érodée par d'autres intérêts*

En tout état de cause, avec la CPI la justice pénale internationale a désormais un visage et une institution permanente capable d'incarner la justice partout dans le monde. La carte de la figure 2 montre en effet que la CPI a été active sur tous les continents durant ces vingt dernières années. Si cette activité est indéniable et significative, le bilan effectif du nouvel ordre international mis en place par le Statut de Rome est plus contrasté. La cour est en effet régulièrement confrontée à des leaders gouvernementaux dont le degré de coopération dépend avant tout d'intérêts politiques et géostratégiques (Aptel, 2007). L'expression "géant sans bras ni jambes" utilisée par Cassese (1998) pour qualifier le TPIY, pourrait tout aussi bien convenir à la CPI dont le fonctionnement dépend exclusivement du financement et de la coopération des États-parties. Enfin le mécanisme de complémentarité ne semble pas avoir créé d'électrochoc majeur sur l'activité des juridictions nationales. Ces dernières restent frileuses en la matière et ont tendance à exercer leur compétence principalement à l'égard de leaders passés devenus *persona non grata* de la communauté internationale et beaucoup moins à l'égard de leaders en place (Gallié and Dumont, 2005). Il est donc clair que la justice

pénale internationale a connu des avancés considérables mais qu'elle reste un édifice aux équilibres fragiles, qui continue de se heurter à des États souhaitant garder une forte discrétion en la matière pour privilégier au besoin d'autres intérêts.

## 0.2.2 Tribunaux pénaux internationaux

### *Nuremberg et Tokyo : les vaincus jugés par les vainqueurs*

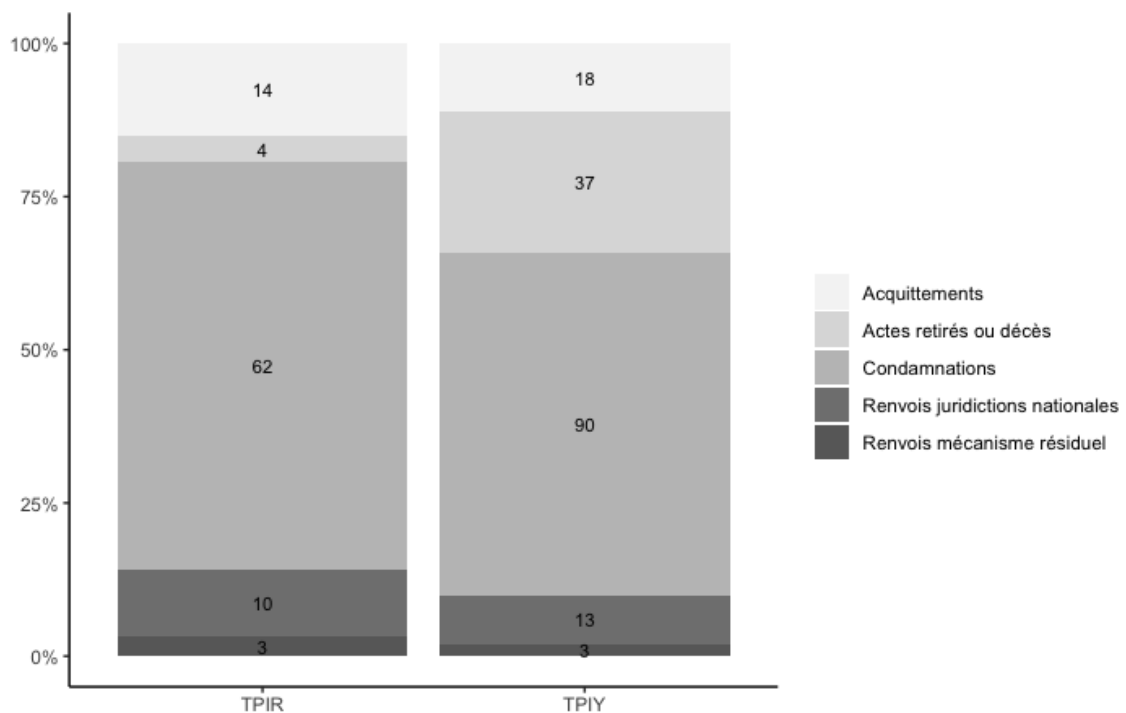
Parmi les 22 hauts-responsables nazis mis en cause par le premier tribunal militaire international, celui de Nuremberg, 12 sont condamnés à la peine de mort, 3 à la prison à vie et 4 à des peines de prison entre 10 et 20 ans. Quelques mois plus tard, sur un format et des charges identiques à quelques nuances près (Fujita, 2000), le tribunal militaire international pour l'extrême orient à Tokyo condamne lui aussi plusieurs dizaines de hauts-responsables japonais à des peines comparables pour les crimes internationaux commis durant la seconde guerre mondiale sur les territoires occupés par le Japon (Namba, 2013). Avec une durée d'existence de moins d'un an pour le TPI de Nuremberg et de deux ans pour celui de Tokyo, ces tribunaux rendent justice rapidement, sévèrement et avec un taux de succès élevé. Les deux tribunaux exercent leur compétence sur le territoire de régimes défaits et à l'égard de hauts-responsables s'étant rendus ou ayant été capturés à la fin de la guerre, c'est-à-dire dans un contexte particulièrement favorable à un taux de succès élevé.

### *Une justice mise en oeuvre pendant la situation de crime*

En 1993, moins de cinquante ans après Nuremberg, alors que des crimes internationaux sont en cours depuis 1991 en ex-Yougoslavie, le Conseil de sécurité de l'ONU adopte la résolution 827 portant création du Tribunal Pénal International pour l'ex-Yougoslavie (TPIY). En 25 ans d'existence, ce tribunal au fonctionnement autonome (Ascensio and Pellet, 1995) disposant d'un budget ayant dépassé les cent millions de dollars par an (Wippman, 2006) a mis en cause 161 individus. Le graphique de la figure 3 montre que le TPIY a condamné plus de la moitié des accusés et acquitté ou retiré les charges de près de 40% des accusés. En novembre 1994, alors que le TPIY entre dans sa phase active en lançant son premier acte d'accusation, la résolution 955 de l'ONU

créé le Tribunal Pénal International pour le Rwanda (TPIR) (Akhavan, 1996). Ce second tribunal *ad hoc* créé par l'ONU a vocation à juger les criminels responsables du génocide rwandais perpétré en 1994. En activité jusqu'en 2012 où il rend son dernier jugement en première instance, il met en cause 93 individus, en condamne les deux tiers et acquitte ou retire les charges de 20% d'entre eux (Figure 3). Ces deux tribunaux renverront également une dizaine d'individus devant les juridictions nationales ou devant le "mécanisme international" créé en 2010 et appelé à exercer les fonctions résiduelles des TPIY et TPRI une fois leurs mandats respectifs achevés. La justice rendue par ces deux tribunaux *ad hoc* des nations unies, bien que coûteuse et s'étalant sur deux décennies, permettra de punir pour chaque situation de crime plusieurs dizaines d'individus à des peines allant jusqu'à la prison à perpétuité.

FIGURE 3: Bilan d'activité des tribunaux pénaux internationaux pour l'ex-Yougoslavie (TPIY) et pour le Rwanda (TPIR)



### 0.2.3 Cour pénale internationale

#### *Mise en place et influence de la CPI*

A l'issue de négociations débutées en 1989 sous l'impulsion des Nations Unies, le 17 juillet 1998 plus de 160 États et 260 organisations non-gouvernementales sont réunis à Rome pour adopter le Statut de la Cour pénale internationale (Arsanjani, 1999). Le rassemblement se conclut par un vote des États sur l'adoption du Statut de Rome à 120 voix pour, 7 voix contre et 21 abstentions. Dès 1999, plusieurs États déposent leur instrument de ratification du Statut et la Cour pénale internationale entre en activité en juillet 2002 avec près de 80 États-parties. Depuis 2002, la CPI a progressivement étendu son influence et compte désormais 123 États-parties représentés sur la carte de la figure 2.3. Il est à noter que si les États les plus influents comme les États-Unis, la Russie, la Chine ou l'Inde ne sont pas membres, l'ensemble des pays d'Europe et d'Amérique du sud le sont. *A contrario*, une large part des pays d'Afrique du nord, du Moyen Orient et d'Asie ne sont pas membres du Statut de Rome. L'influence de la CPI à travers le monde n'est donc pas homogène.

FIGURE 4: États-parties au Statut de Rome



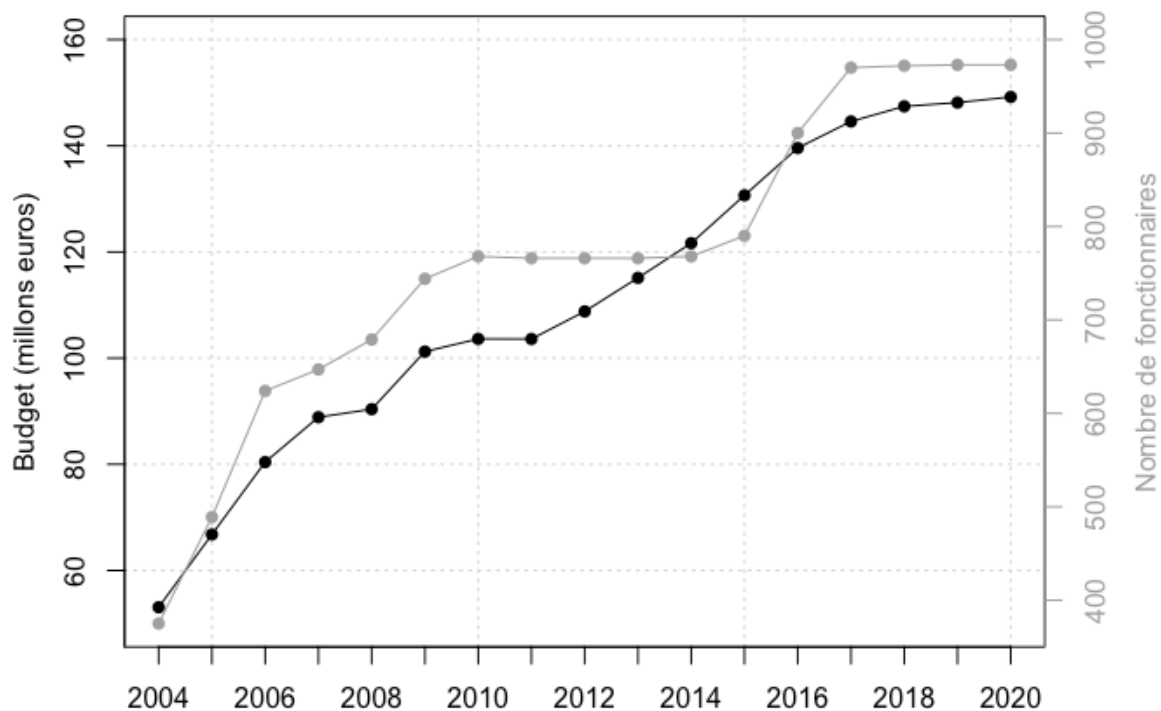
### ***Le fonctionnement institutionnel de la CPI***

Débutant avec un budget d'un peu plus de 50 millions d'euros et moins de 400 fonctionnaires, la Cour a vu ses ressources évoluer à la hausse à mesure que le nombre d'États-parties a augmenté pour atteindre en 2020 un budget de près de 150 millions d'euros et près de 1000 fonctionnaires. Les ressources financières de la Cour dépendant majoritairement des contributions des États-parties, il n'est pas surprenant d'observer sur le graphique de la figure 5 qu'à partir de 2016 la hausse du budget et du nombre de fonctionnaire s'arrête puisqu'à cette date la CPI plafonne déjà à 123 pays membres. Dans ces pays, la Cour est compétente à titre complémentaire des juridictions nationales, c'est-à-dire si ces dernières n'ont pas la volonté ou la capacité de mener à bien des poursuites. La CPI joue donc un rôle de "filet de sécurité" qui a vocation à exercer sa compétence en cas de défaillance des juridictions nationales. La compétence s'exerce sur le territoire et à l'égard de tous les citoyens des pays membres à partir de la date de ratification du Statut de Rome par ce pays et sans rétroactivité. Les crimes relevant de la compétence de la Cour sont imprescriptibles et si un pays décide de se retirer du Statut, comme ce fut le cas pour le Burundi en 2016 et les Philippines en 2017 (voir figure 2.3), une *exit clause* prévoit un délai d'un an entre la demande de retrait et la fin de la compétence. Ces différents verrous autour de la compétence apportent une crédibilité à la menace de poursuites.

### ***Bilan d'activité de la CPI***

La politique pénale de la Cour est conduite par le procureur qui peut ouvrir une enquête sur sa propre initiative, se voir déférer une situation par un État-partie ou par le Conseil de sécurité de l'ONU. Comme ce fut le cas pour l'Ukraine en 2014, un État non partie peut également reconnaître, de façon exceptionnelle et sur une situation précise de crime présumé, la compétence de la Cour. La carte de la figure 6 qui présente le bilan de l'activité judiciaire de la CPI depuis 2002 indique les examens préliminaires en cours ou clos et les situations sous enquêtes à travers le monde. Il est visible que si la Cour agit sur presque tous les continents, l'intensité de l'action varie considérablement d'un continent à l'autre. Concernant les stades de procédure d'abord, sur le continent africain la plupart des situations sont au stade le plus avancé de la

FIGURE 5: Budget annuel et personnel de la Cour pénale internationale



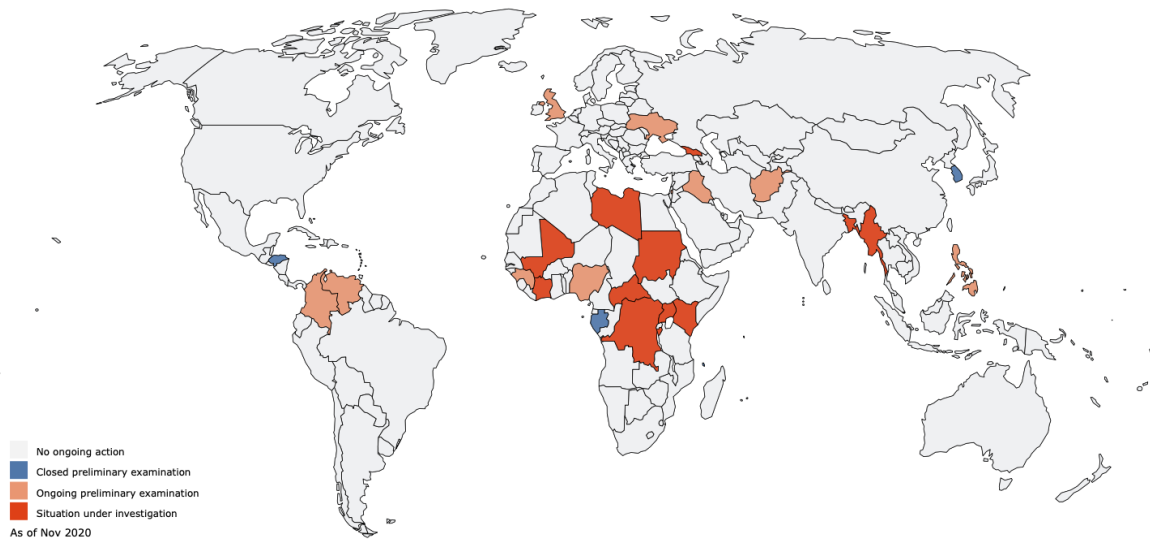
procédure, celui de l'enquête alors que sur les continents européens ou américains la plupart des situations sont au stade de l'examen préliminaire. Concernant la quantité de situations ensuite, la majorité de l'activité se concentre en Afrique centrale, zone où beaucoup de pays connaissent des fragilités institutionnelles et où d'après la carte de la figure 1 les violences envers les civils sont parmi les plus élevées du monde. Cette activité semble en cohérence avec les caractéristiques institutionnelles de la CPI qui a vocation à agir dans les zones où la criminalité internationale est forte et lorsque les juridictions nationales sont défaillantes.

## 0.2.4 Tribunaux nationaux et hybrides

### *Des États victimes de crimes internationaux*

Si la justice pénale internationale s'est originellement construite avec des tribunaux internationaux pour pallier les défaillances de juridictions nationales, dès le milieu du XXème l'implication des États se consolide progressivement pour différentes raisons et

FIGURE 6: Activité de la Cour pénale internationale depuis 2002



sous différentes formes. Il y a d'abord les États dont les citoyens ont été victimes de crimes internationaux. Israël par exemple s'engage très rapidement après Nuremberg pour des raisons historiques évidentes dans la traque de hauts-responsables nazis en fuite. Le cas d'Adolf Eichmann, dirigeant dans la mise en oeuvre de l'extermination des juifs par le régime nazi, illustre particulièrement bien la politique pénale d'Israël. Alors qu'il se cache en Argentine, Eichmann est capturé en 1960 par les services de renseignement israéliens et ramené à Jérusalem pour être jugé. A l'issue d'un procès (Weitz, 1996) qui dure quelques mois, il est condamné à la peine de mort en 1962 pour crimes contre l'humanité, crimes de guerre et génocide.

### *Des États rattrapés par leur histoire*

Des États comme la France, sont d'avantage rattrapés par une histoire nationale qui les contraint progressivement à engager des poursuites à l'encontre de ressortissants ayant commis des crimes internationaux. Le premier individu poursuivi et condamné pour crimes contre l'humanité par une juridiction française est Paul Touvier. Le cas Touvier illustre bien l'entremêlement et parfois l'opposition qu'il peut y avoir entre les décisions politiques et les décisions des juridictions nationales concernant des affaires de droit pénal international (Merchant, 1995). Leader local d'une milice antisémite à Lyon durant la guerre et entré dans la clandestinité après la guerre, Paul Touvier est pourtant gracié par le Président George Pompidou en 1971 mais en réaction à

cette grâce, de nombreuses plaintes pour crime contre l'humanité seront déposées à son encontre. La conjonction de ces plaintes et une forte pression médiatique conduisent la chambre criminelle de Paris à se déclarer compétente sur le cas Touvier en 1974. En 1981 Touvier est inculpé de crime contre l'humanité et un mandat d'arrêt international est lancé à son encontre. Il est arrêté en 1989 et condamné définitivement à la prison à perpétuité en 1994.

### *L'exercice de la compétence universelle*

On trouve également plusieurs exemples d'États pour lesquels les juridictions nationales ont exercé leur compétence universelle en matière de droit pénal international pour poursuivre des criminels internationaux présumés. L'un des premiers et probablement le plus célèbre des exemples est celui de l'arrestation à Londres en 1998 du général Pinochet sur demande d'un juge espagnol (Pion-Berlin, 2004). Après de nombreux rebondissements et plusieurs décisions juridiques et politiques contradictoires des autorités britanniques, Pinochet est autorisé à rentrer au Chili où il décède en 2006 sans avoir été jugé. Plus récemment, l'Allemagne fait partie des pays qui ont apporté un nouveau souffle à l'exercice de la compétence universelle en conduisant des enquêtes structurelles sur des situations de crimes et notamment à propos de la situation en Syrie depuis 2011 (Kaleck and Kroker, 2018). Début 2021, l'Allemagne obtient des résultats de sa politique pénale avec la condamnation pour complicité de crime contre l'humanité à quatre ans et demi de prison de Eyad al Gharib, membre des forces de sécurité syriennes.

### *Les tribunaux hybrides pour les États aux institutions fragiles*

Dans les pays aux institutions plus fragiles, l'implication des États s'est généralement manifestée par la création de juridictions hybrides à partir du début des années 2000. Ces juridictions sont le fruit d'un accord entre l'ONU et le pays où a lieu la situation de crime. Elle sont constituées de panels de juges et procureurs nationaux et internationaux et contiennent à la fois des éléments de droit international et de droit interne. La première expérience de juridiction hybride est mise en place en 2000 à l'initiative de l'administration transitoire des Nations Unies au Timor oriental concernant des crimes



perpétrés en 1999 à la fin de l'occupation indonésienne. Malgré d'importantes difficultés rencontrées du fait notamment du manque de coopération de l'Indonésie, plusieurs dizaines d'individus furent jugés et condamnés (de Bertonado, 2004) jusqu'en 2005. A l'inverse du Timor oriental, les Chambres Africaines Extraordinaires sont créées sur initiative du Sénégal par la signature d'un accord avec l'Union Africaine en 2012. L'objet de cette juridiction hybride est de juger l'ancien président Tchadien Hissène Habré notamment pour le massacre d'environ 40 000 civils, des actes de torture et violences sexuelles systématiques perpétrés par son gouvernement entre 1982 et 1990 (Brody, 2015). Hissène Habré est condamné à la prison à perpétuité en 2016 pour crimes contre l'humanité et crimes de guerres et à des réparations aux victimes s'élevant à plusieurs millions de dollars.

## 0.3 Méthodologie : l'analyse économique du crime

### 0.3.1 Principes théoriques de l'économie du crime

#### *Aux origines de l'analyse économique du crime*

Cesare Beccaria (1764) formule avec une clarté saisissante ce qui sera deux siècles plus tard le cœur et les principes clés de l'analyse économique du crime : *"L'intérêt de la société est non seulement qu'il ne se commette point de crimes, mais encore qu'ils soient plus rares à proportion qu'ils en violent plus les lois. Le tort qu'ils font au bien public et les motifs qui portent à les commettre doivent donc être la mesure du frein qu'on cherche à leur opposer ; il doit donc exister une proportion entre les délits et les peines"*. Tout ou presque figure dans ces quelques lignes. D'abord l'idée que l'objectif de la politique pénale doit être guidé par l'intérêt de la société, c'est ce que l'économie normative appelle le bien-être social. L'idée ensuite que le crime cause un tort au bien public, c'est ce que l'économie normative appelle le dommage social du crime. Enfin, l'idée que les ressources investies par le législateur doivent être d'autant plus importantes que le dommage causé par le crime est important, c'est le principe d'analyse à la marge. Jeremy Bentham (1789) place au centre de son analyse sur la législation, le concept d'utilité qui gouverne selon lui l'ensemble des comportements individuels

y compris les comportements criminels. L'utilité regroupe l'ensemble des plaisirs et des peines en chaque action individuelle que le législateur peut modifier en agissant notamment sur l'intensité et la certitude de ces plaisirs et peines. Dans la théorie utilitariste, la somme des utilités individuelles constitue ce que Bentham nomme "l'intérêt commun", c'est-à-dire le bien-être social que le législateur peut modeler en agissant sur les incitations individuelles. Gary Becker (1968) formalise les idées de Beccaria et Bentham et leur rend d'ailleurs un hommage appuyé dans les dernières lignes de son article séminal : [...] *"my efforts can be viewed as a resurrection, modernization, and thereby I hope improvement on these much earlier pioneering studies."* Cet article pose les bases d'un nouveau domaine d'application de l'économie, l'économie du crime, qui entame son développement sur sa branche théorique (Garoupa, 1997) avant de connaître comme beaucoup de domaines d'application sa "révolution" empirique ((Donohue, 2015), (Chaffin and McCrary, 2017)).

### ***Le modèle canonique***

Considérons une situation dans laquelle des individus neutres au risque composant une société tirent un bénéfice privé  $b$  de la commission d'actes criminels. Le bénéfice  $b$  est standardisé sur l'intervalle  $[0, 1]$  et suit une distribution uniforme dans la population. L'acte criminel est réprimé par une autorité qui décide de la sévérité de la sanction et de la probabilité de détection. La sanction, notée  $f$  est supposée monétaire et finie à niveau maximal noté  $F$  tel que  $f \leq F$ . La probabilité de détection et de sanction des individus est notée  $p \in (0, 1)$ . La sanction espérée pour un individu qui s'engage dans l'activité criminelle est  $pf$ . L'option extérieure du crime est supposée nulle. L'utilité d'un individu qui considère la possibilité de commettre un crime est :

$$U_c = b - pf \tag{1}$$

Compte tenu du fait que l'option extérieure du crime est ici  $U_{nc} = 0$ , la condition pour qu'un individu s'engage dans une activité criminelle est définie par :

$$b - pf \geq 0 \tag{2}$$

Les individus ayant un bénéfice  $b$  supérieur à la sanction espérée  $pf$  s'engagent dans l'activité criminelle et le niveau de dissuasion dans la société est défini par :

$$b \geq pf \equiv \bar{b}(pf) \quad (3)$$

Le niveau de dissuasion  $\bar{b}(pf)$  est croissant de  $pf$ , autrement dit plus la sanction espérée est élevée, plus la proportion d'individus dans la société ayant un bénéfice  $b$  supérieur à  $pf$  est petite et la proportion d'individus à être dissuadée est grande. Rien ne s'oppose donc *a priori* à l'existence d'un niveau de sanction espérée si élevée que l'ensemble des individus sont dissuadés de s'engager dans l'activité criminelle. Cependant considérer cette possibilité fait émerger deux questions : 1) est-ce une option socialement souhaitable ? 2) De quelle manière faut-il combiner les deux outils  $p$  et  $f$  ? Pour répondre à ces deux questions, spécifions le bien-être social défini par une approche utilitariste, c'est-à-dire comme la somme des surplus dans la société :

$$W = \underbrace{\int_{pf}^1 b - pf \, db}_{\text{surplus des criminels}} - \underbrace{\int_{pf}^1 h \, db}_{\text{dommage du crime}} + \underbrace{\int_{pf}^1 pf \, db - cp}_{\text{surplus de l'autorité}} \quad (4)$$

Avec  $h > 0$  le dommage social causé par le crime et  $c > 0$  le coût marginal de mise en oeuvre de la probabilité de détection et sanction  $p$ . La sanction  $f$  est ici un simple transfert monétaire sans coûts entre les criminels détectés et l'autorité qui collecte les amendes dont le montant est soumis à la contrainte  $f \leq F$ . Après simplification du bien-être social le problème posé à l'autorité concernant la mise en oeuvre de la politique répressive est le suivant :

$$W = \int_{pf}^1 (b - h) \, db - cp \quad (5)$$

$$\text{s.c } f \leq F$$

Le crime étant socialement indésirable, il est supposé que  $(b - h) < 0$ , c'est-à-dire

que le gain privé issu du crime est toujours considéré comme inférieur à l'externalité négative générée par le crime. Dans ce contexte l'autorité cherche à minimiser le dommage social du crime à moindre coût en choisissant les niveaux optimaux de  $f$  et  $p$ .

**Proposition 1.** *la sanction optimale est maximale telle que  $f^* = F$  et la probabilité de détection optimale est :  $p^* = 0$  pour  $h \leq \frac{c}{F}$  ;  $0 < p^* < 1$  pour  $\frac{c}{F} < h < F + \frac{c}{F}$  ;  $p^* = 1$  pour  $h \geq F + \frac{c}{F}$*

**Proof.** D'abord avec 3.1, nous avons le nombre d'individus sur le marché criminel donné par  $n = \int_{pf}^1 db \geq 0$  et  $n$  décroissant de  $pf$ . Aussi par hypothèse  $(b - h) < 0$ , par conséquent  $W$  est toujours une fonction croissante de  $f$  et la sévérité de sanction optimale est telle que  $f^* = F$ . Concernant la probabilité de détection, la condition du premier ordre de  $W$  en  $p$  est :

$$\frac{\partial W}{\partial p} = 0 \iff -pF^2 + Fh - c = 0 \quad (6)$$

La condition du second ordre ( $W_{pp} = -F^2$ ) est satisfaite pour un maximum et la probabilité optimale de détection est donnée par :

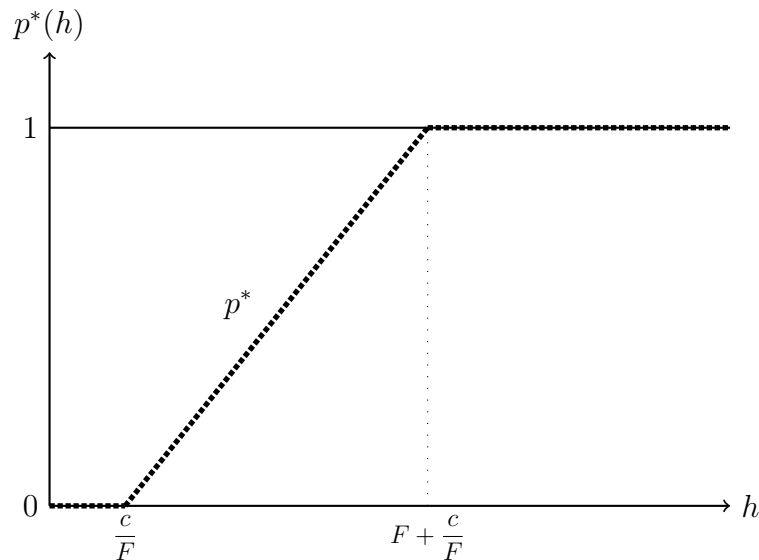
$$p^*F = h - \frac{c}{F} \quad (7)$$

□

Dans ce cadre, tant que la sanction n'est pas maximale, il reste possible de réduire, à niveau de dissuasion donné, les coûts de mise en oeuvre de la politique répressive. Par conséquent pour répondre à la question 2), dans ce cadre, tout niveau de dissuasion  $\bar{b}(pf)$  doit-être atteint avec une sévérité maximale et complété avec une certaine probabilité de détection. Dans d'autres cadres, comme celui par exemple proposé par Garoupa and Mungan (2019), lorsqu'il est possible de recourir à la fois à une sanction monétaire et à de la prison et que le niveau de richesse entre les individus varie, la sanction monétaire maximale n'est pas nécessairement optimale. La graphique de la figure 3.1 permet de visualiser la probabilité optimale de détection en fonction du dommage social  $h$  et fournit une réponse à la question 1) sur le niveau socialement op-

timal de dissuasion : la probabilité de détection et donc le niveau optimal de dissuasion doit être d'autant plus élevé que le dommage social généré par le crime est grand. Ici avant le seuil  $h_0 = \frac{c}{F}$ , il est socialement optimal de ne pas dépenser de ressources en détection car le dommage social du crime n'est pas assez élevé. A l'inverse à partir du seuil  $h_1 = F + \frac{c}{F}$ , le dommage social généré par le crime est si grand qu'il est optimal de détecter avec certitude tous les criminels. Pour un niveau de dommage situé entre  $\frac{c}{F} < h_i < F + \frac{c}{F}$ , la probabilité optimale de sanction se situe entre 0 et 1.

FIGURE 7: Probabilité de sanction optimale en fonction du dommage social



### ***La pertinence de l'approche Beckerienne pour étudier la criminalité pénale internationale***

Le modèle canonique qui vient d'être présenté repose sur l'idée fondamentale que les individus, criminels et non-criminels, font preuve de rationalité, ici parfaite, dans les décisions qu'ils prennent. Il est alors légitime de s'interroger sur la pertinence d'utiliser une méthodologie aux hypothèses si fortes pour analyser une criminalité souvent considérée hors norme par sa violence et qui ne pourraient donc qu'être le fruit de comportements individuels hors de toute raison. Sur ce sujet, le point clé consiste à savoir si les criminels internationaux répondent, au moins en partie, aux incitations. D'abord, comme le soulignent Mullins and Rothe (2010) la criminalité pénale internationale est une criminalité organisée, elle regroupe un grand nombre d'individus, qui gèrent des

ressources communes, se répartissent des tâches et partagent des objectifs communs. Il faut ajouter que ces crimes se préparent et se produisent en général sur des intervalles de temps importants, parfois plusieurs semaines, plusieurs mois, voire plusieurs années. Par conséquent, si des comportements totalement impulsifs et irrationnels existent sans aucun doute, il semble peu plausible qu'ils soient particulièrement plus fréquents que pour les autres catégories de crimes. Il semble alors raisonnable de croire qu'une partie au moins des criminels internationaux répondent aux incitations. A partir de là, l'analyse Beckerienne apparaît légitime et pertinente pour étudier le phénomène de dissuasion des crimes internationaux. Enfin, évidemment l'approche à *la Becker* n'est pas exclusive et le maximum d'approches doivent venir, en complémentarité, enrichir la connaissance sur les moyens de réduire cette criminalité.

### 0.3.2 Statistiques descriptives de la criminalité pénale internationale

#### *Les bases de données*

Les données sur la criminalité pénale internationale restent à ce jour encore assez limitées. Deux bases se sont imposées dans le domaine : la base *CIRI human rights* (Cingranelli and Richards, 2010) et la base *UCDP Georeferenced Event* (Sundberg and Melander, 2013). La couverture temporelle et géographique de ces bases permet d'apporter un éclairage à la fois sur la répartition par zone géographique et sur les dynamiques de cette criminalité au cours des quarante dernières années.

La base *CIRI* couvre la période 1981-2011 et regroupe des indices mesurant le respect des droits humains par les gouvernements pour l'ensemble des pays du monde. Parmi les indices directement en lien avec la criminalité pénale internationale, un indice d'intensité d'usage de la torture et un indice de respect général des droits humains. Les rapports nationaux du Département d'État américain sur les pratiques en matière de droits de l'homme et de manière complémentaire les rapports annuels d'*Amnesty International*, sont les deux sources des données *CIRI*. La diversité des sources pour ces données est donc relativement limitée et l'information capturée a été triée et synthétisée

en amont par les sources. Par ailleurs ces données fournissent une information uniquement sur les gouvernements.

La base *UCDP GED* couvre la période 1989-2019 et enregistre les événements de tueries de civils intentionnelles perpétrées par les gouvernements et groupes non gouvernementaux pour l'ensemble des pays du monde. L'information des données *GED* est collectée de façon semi-automatique à l'aide d'algorithmes et provient essentiellement de médias à la fois internationaux (BBC, AFP, etc) et locaux. Cette information est complétée et croisée avec les rapports de différentes ONG, notamment *Human Right Watch* et *Amnesty International*. Contrairement aux données *CIRI*, la diversité des sources est importante et il s'agit majoritairement d'informations de première main n'ayant pas été triées et synthétisées en amont par un gouvernement ou une ONG.

### ***Dynamique mondiale : quatre décennies ininterrompues de criminalité pénale internationale***

L'indice d'intégrité physique (Physint) des données *CIRI* est construit par addition de quatre indices de cette même base : torture (Tort), assassinat extrajudiciaire (Kill), emprisonnement politique (Polpris) et disparition (Disap). Tous ces indices ont la même structure en trois modalités (allant de 0 à 2) et peuvent s'interpréter comme des notes : plus l'indice est élevé, plus le gouvernement est "bon élève" dans le respect du droit humain en question. A titre d'illustration les modalités de la variable torture (Tort) sont les suivantes :

- 0 : la torture a été employée fréquemment l'année considérée ;
- 1 : la torture a été employée de manière occasionnelle l'année considérée ;
- 2 : la torture n'a pas été employée l'année considérée.

L'indice "Physint" est compris entre 0 et 8 puisqu'il correspond à l'addition des quatre variables pouvant chacune prendre au minimum la valeur 0 et au maximum la valeur 2. Le graphique de la figure 8 permet de visualiser la dynamique de la valeur moyenne de cet indice dans le monde sur la période 1981-2011. D'abord en terme de niveau, l'indice oscille entre au minimum 4,4 en 1990 et au maximum 5,3 en 2001. L'indice se dégrade durant les années 1980, puis se stabilise dans les années 1990 et

FIGURE 8: Indice moyen de respect des droits humains dans le monde entre 1981 et 2011



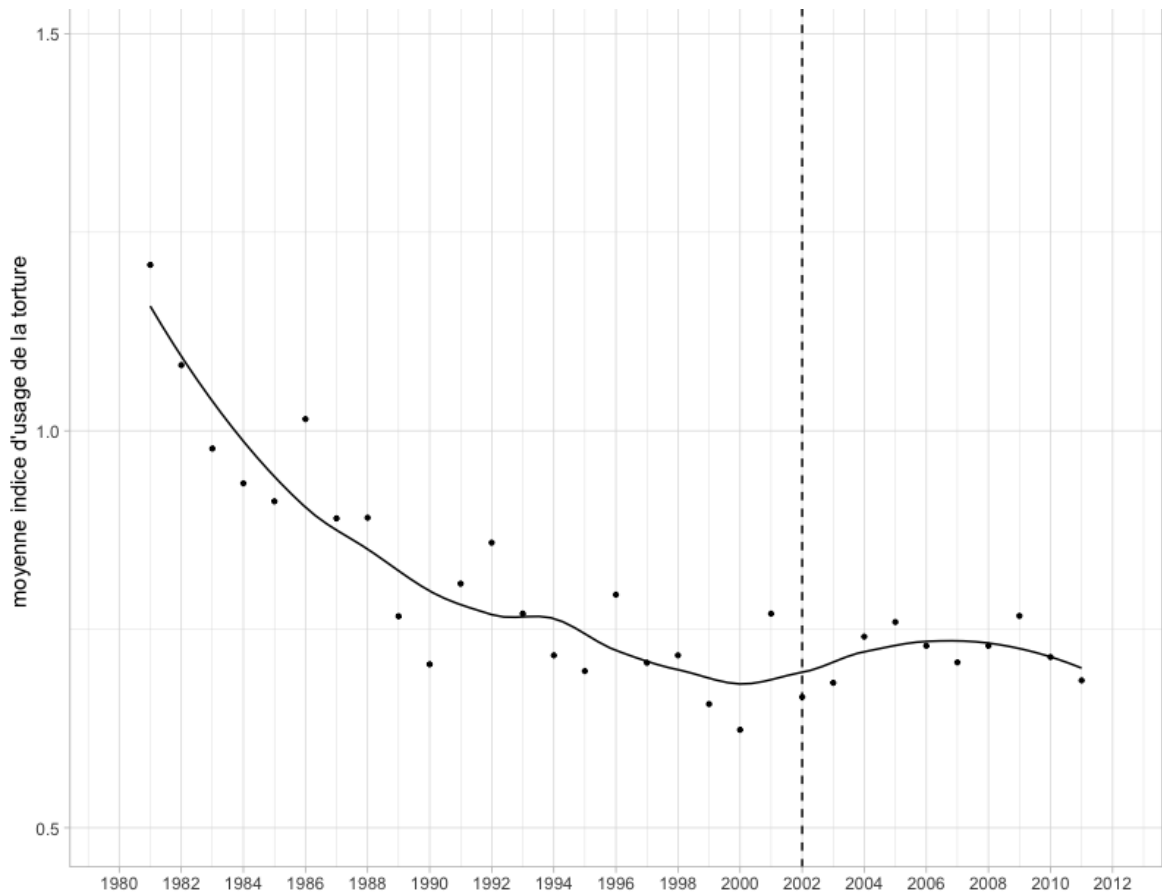
Note : chaque point mesure la moyenne de l'indice PHYSINT pour l'ensemble des pays du monde chaque année. La courbe noire est obtenue par un lissage polynomial local.

s'améliore dans les années 2000 où il revient à des niveaux proches de ceux du début des années 1980. Le lancement de la Cour pénale internationale matérialisé par la barre noire verticale en pointillés ne coïncide pas avec une hausse de l'indice mais plutôt avec un arrêt de l'augmentation de l'indice moyen débuté à la fin des années 1990.

La mesure de l'usage de la torture au niveau mondial est représentée sur le graphique de la figure 9 qui montre une hausse franche et constante de l'intensité de l'usage de la torture par les gouvernements au niveau mondial entre 1981 et 2011. La baisse la plus importante de l'indice est observée entre 1981 où l'indice est à son niveau maximum de 1,2 et 2000 où l'indice est à son niveau minimum de 0,62. A partir des années 2000 l'indice cesse de baisser mais le lancement de la CPI en 2002 ne coïncide pas avec une



FIGURE 9: Indice moyen d'usage de la torture dans le monde entre 1981 et 2011

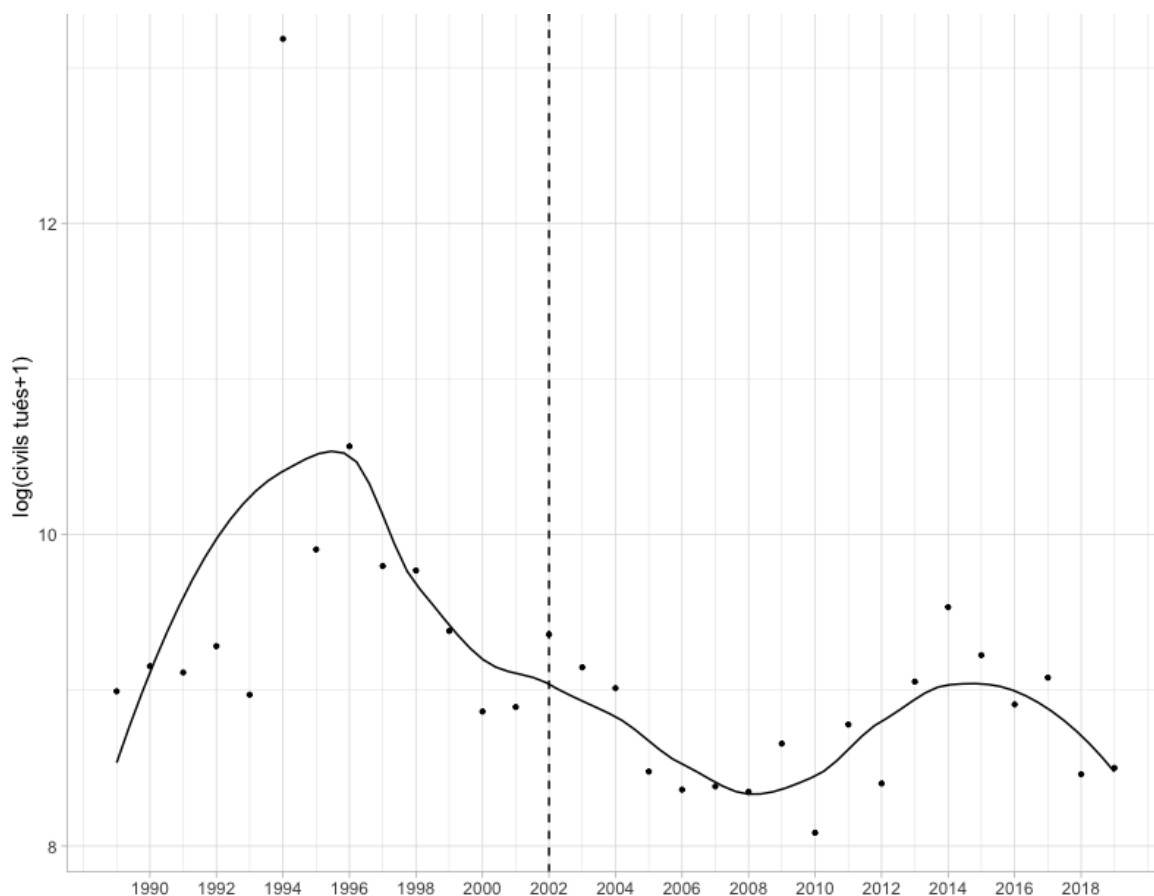


Note : chaque point mesure la moyenne de l'indice TORT pour l'ensemble des pays du monde chaque année. La courbe noire est obtenue par un lissage polynomial local.

hausse substantielle de l'indice.

Le graphique de la figure 10 mesure le logarithme du nombre de civils tués (+1) intentionnellement par des gouvernements ou groupes non-gouvernementaux à travers le monde chaque année entre 1989 et 2019. Il est d'abord visible que si les tueries de civils ont atteint leur niveau le plus important au milieu des années 1990 au moment des génocides commis en ex-Yougoslavie et au Rwanda, le nombre de civils tués chaque année dans les années 2010 est comparable avec les niveaux observés au début des années 1990. Il est par ailleurs une nouvelle fois visible que le lancement de la CPI ne coïncide pas avec une cassure dans le nombre de civils tués puisque la tendance à la baisse débute après le pic du milieu des années 1990 pour se poursuivre jusqu'au milieu des années 2000.

FIGURE 10: Civils tués intentionnellement dans le monde entre 1989 et 2019



Note : chaque point mesure le logarithme du nombre de civils tués intentionnellement (+1) par des gouvernements ou groupes non-gouvernementaux chaque année. La courbe noire est obtenue par un lissage polynomial local.

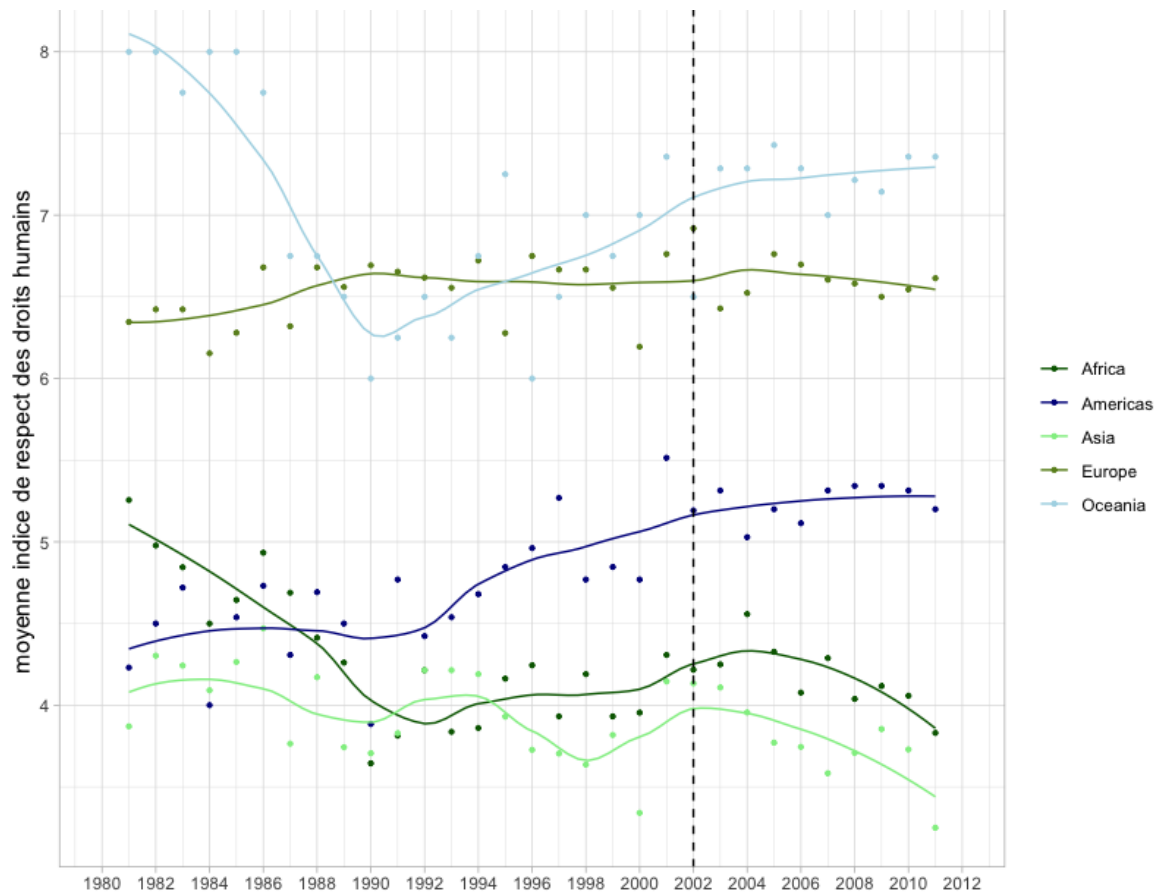
Ces données sur plus de quatre décennies agrégées au niveau mondial mettent en évidence de façon claire que la criminalité pénale internationale est avant tout systémique, relativement stable au cours du temps, et se conjugue épisodiquement à des situations de crime extraordinaires dans leur ampleur. Il n'y a en outre pas d'amélioration durable ou importante de la situation mondiale sur les quarante dernières années.

### *Dynamique par continent : deux mondes et des dynamiques communes*

Une représentation par continent des données permet de zoomer légèrement l'analyse sur la période. Le graphique de la figure 11 qui représente l'indice de respect des droits humains met en évidence deux groupes de continents nettement séparés. D'un côté l'Océanie et l'Europe enregistrent sur la période des scores moyens pouvant aller

jusqu'à 8 et ne descendant jamais en dessous de 6 avec une stabilité plus importante pour l'Europe. D'un autre côté l'Asie, l'Afrique et l'Amérique, avec depuis le début des années 1990, le continent américain qui se détache durablement des deux autres continents en enregistrant des scores systématiquement meilleurs (autour de 5). L'Asie et l'Afrique sont durablement sur la période 1981-2011 les deux continents qui enregistrent les scores moyens de respect des droits humain par les gouvernements les plus faibles (autour de 4). Par ailleurs alors qu'il y a pour l'Océanie, l'Europe et l'Amérique une tendance à l'amélioration ou du moins une certaine stabilité à partir des années 2000, pour l'Afrique et l'Asie la tendance est à la dégradation.

FIGURE 11: Indice moyen de respect des droits humains par continent entre 1981 et 2011

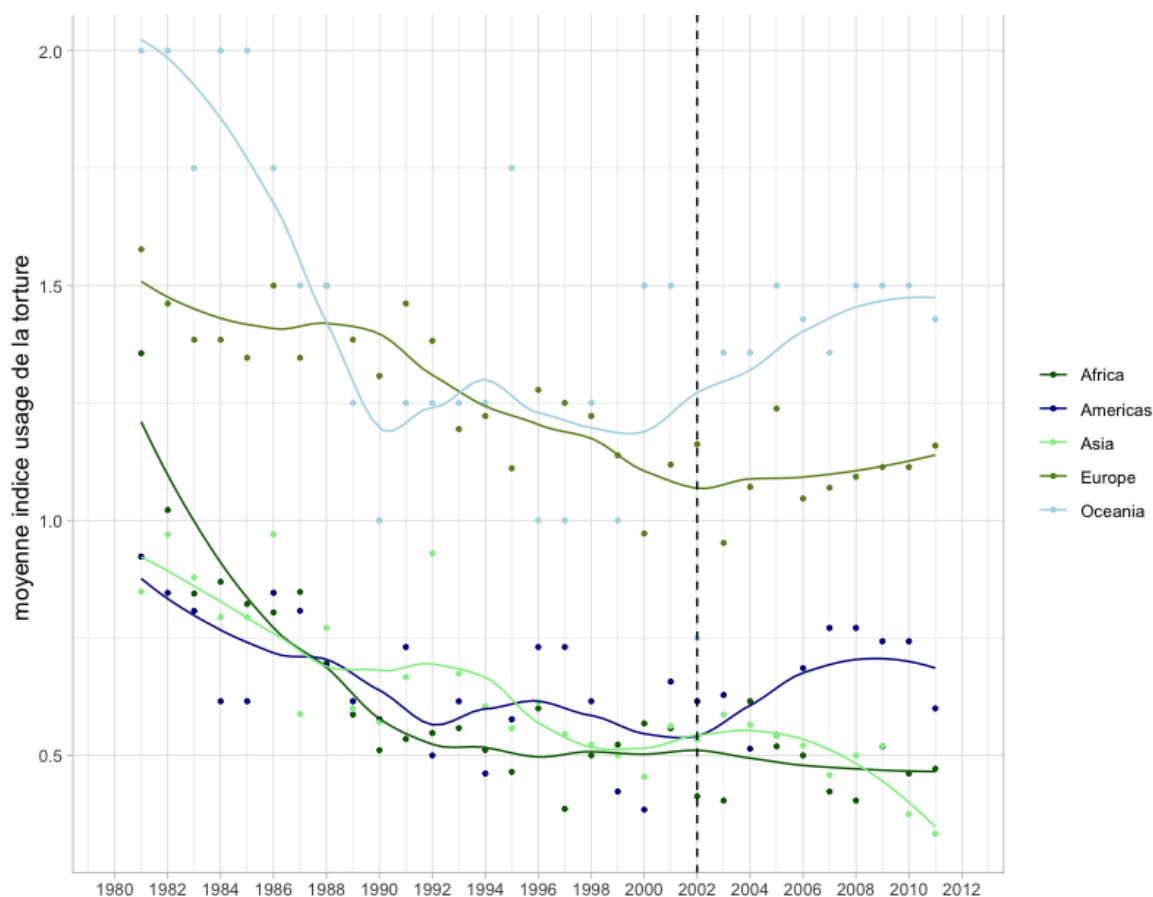


Note : chaque point mesure la moyenne de l'indice PHYSINT pour chaque continent chaque année. La courbe noire est obtenue par un lissage polynomial local.

Concernant l'usage de la torture par les gouvernements selon les continents, il est visible sur le graphique de la figure 12, comme sur le graphique de la figure 11, qu'il y

a une séparation nette entre les deux mêmes groupes de continents. Une dégradation générale est à noter pour l'ensemble des continents sur la période avec des gouvernements qui ont eu en moyenne plus fréquemment recours à la torture. L'indice TORT moyen de l'Afrique est de 1,35 en 1981 contre 0,47 en 2011, celui de l'Amérique de 0,92 en 1981 contre 0,60 en 2011, celui de l'Asie de 0,85 en 1981 contre 0,33 en 2011, celui de l'Europe de 1,58 en 1981 contre 1,11 en 2011 et celui de l'Océanie de 2 en 1981 contre 1,43 en 2011. L'usage de la torture par les gouvernements s'est donc en moyenne intensifié, à des niveaux différents, partout dans le monde entre 1981 et 2011.

FIGURE 12: Indice moyen de l'usage de la torture par continent entre 1981 et 2011

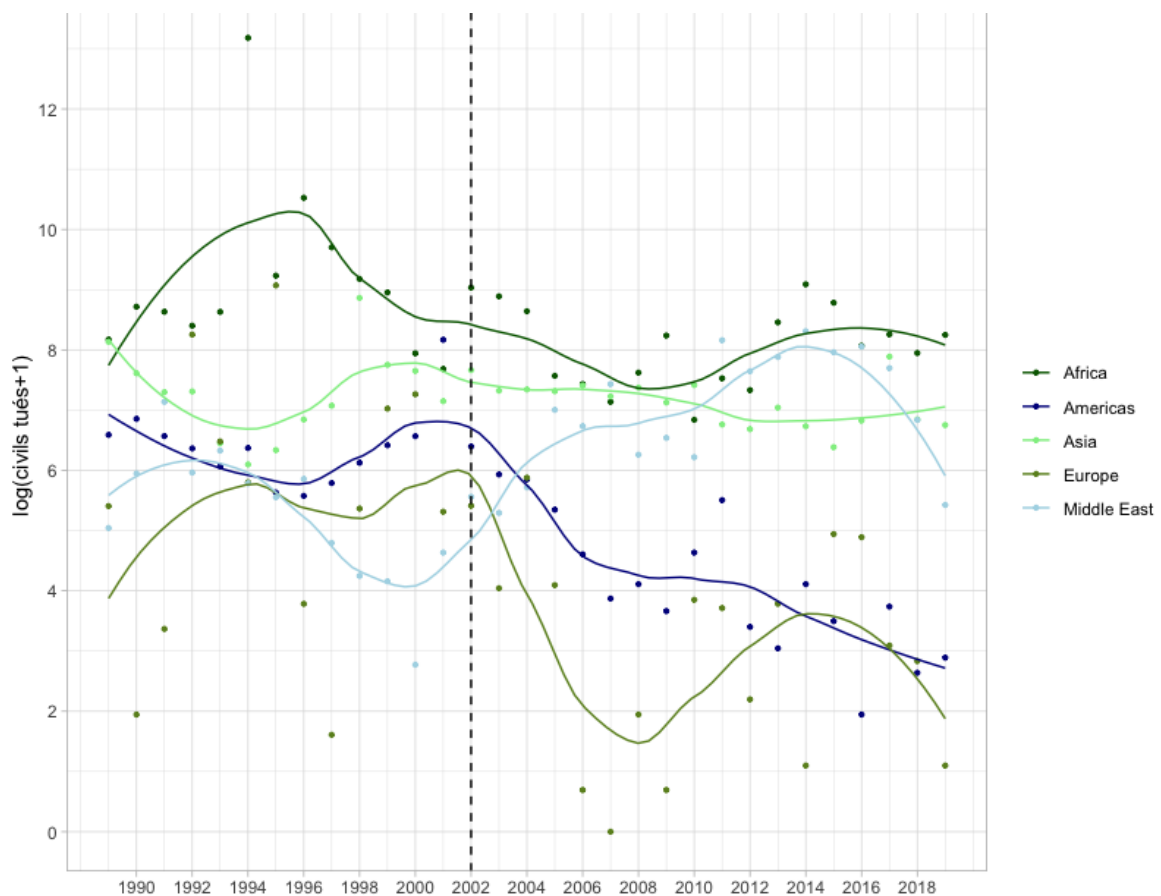


Note : chaque point mesure la moyenne de l'indice TORT pour chaque continent chaque année. La courbe noire est obtenue par un lissage polynomial local.

Concernant les dynamiques de violence à l'encontre des civils sur la période 1989-2019 sur le graphique de la figure 13, il est d'abord frappant de voir la similitude entre la courbe du continent africain et la courbe mondiale de la figure 10. Le continent

africain contribue de façon prédominante à la dynamique mondiale de la criminalité pénale internationale et sur les trois décennies, le nombre de civils tués est presque toujours supérieur en Afrique que sur tout autre continent. Il est à noter une différence dans la catégorisation des continents entre les données *CIRI* dans lesquels les pays du Moyen Orient sont inclus dans le continent "Asie" et les données *UCDP* qui incluent les pays d'Océanie dans le continent "Asie" et considèrent le Moyen Orient comme une région à part entière. Du début des années 1990 au début des années 2000, les courbes sont relativement resserrées puis un décrochage se produit au début des années 2000 avec le Moyen Orient qui rejoint l'Afrique et l'Asie à des niveaux élevés alors que l'Europe et l'Amérique descendent à des niveaux à peu près deux fois plus faibles que les trois autres régions.

FIGURE 13: Civils tués intentionnellement par continent entre 1989 et 2019



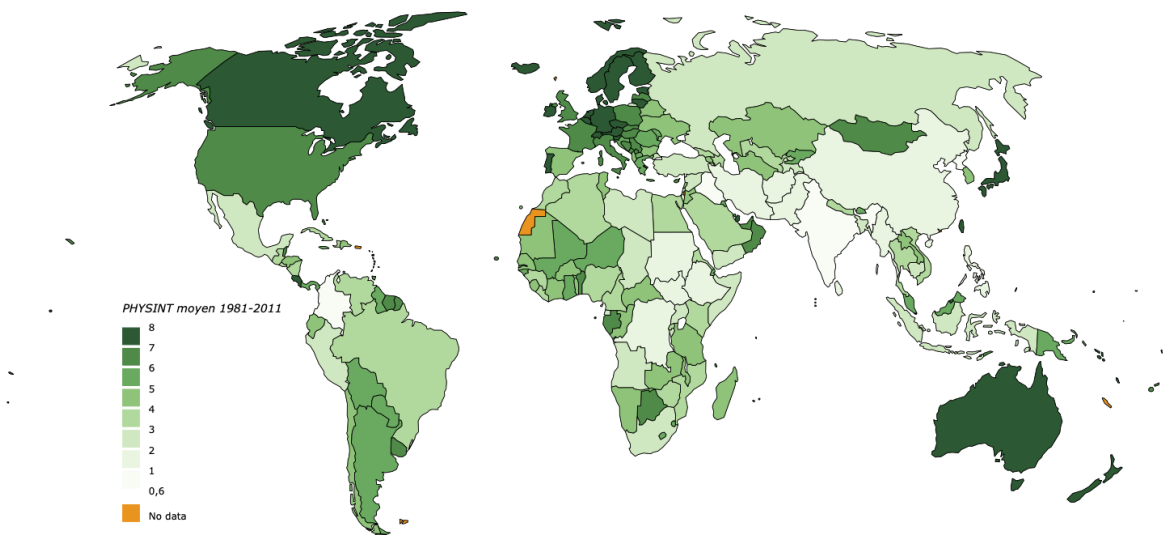
Note : chaque point mesure le logarithme du nombre de civils tués intentionnellement (+1) par des gouvernements ou groupes non-gouvernementaux chaque année. Les courbes sont obtenues par un lissage polynomial local.

Sur la période, la criminalité pénale internationale est donc présente sur tous les continents à des niveaux structurellement plus élevés en Afrique et en Asie. Il n'y a pas de signe d'amélioration important ou durable sur les quatre décennies observées et il y a même pour certains crimes, comme la torture, une dégradation forte et continue pour l'ensemble des continents du monde.

***Répartition géographique : hotspots et zones relativement préservées***

La cartographie permet de zoomer à nouveau d'un cran l'analyse et d'avoir une vision statique mais mondiale du phénomène par pays. La carte de la figure 14 permet de visualiser la répartition géographique de la valeur moyenne de l'indice d'intégrité physique pour chaque pays du monde sur la période 1981-2011. Les pays ayant des indices élevés sont le Canada, l'Australie et les pays d'Europe du Nord avec un indice moyen supérieur à 7 sur les 31 ans observés alors que l'on retrouve parmi les pays ayant des indices moyens faibles les pays d'Afrique centrale comme la République Démocratique du Congo ou l'Éthiopie et des pays d'Asie du sud comme l'Inde ou l'Iran. A quelques exceptions près, une certaine uniformité des scores selon les continents est observée.

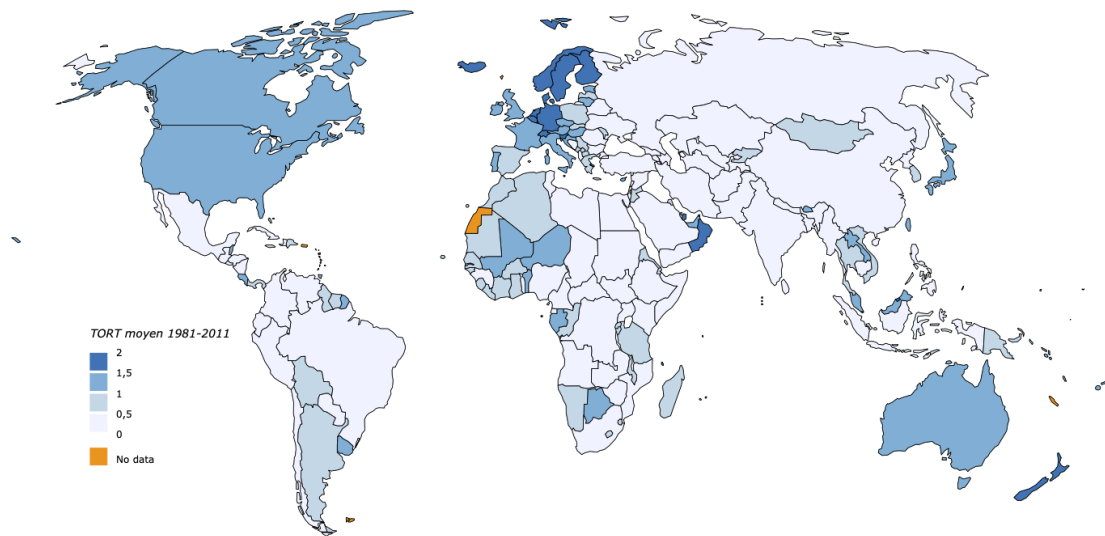
FIGURE 14: Indice moyen de respect des droits humains par pays entre 1981 et 2011



La répartition géographique de l'usage de la torture sur la carte de la figure 15 montre qu'à quelques rares exceptions tous les gouvernements du monde ont employé la torture sur la période 1981-2011. Par ailleurs, dans de très nombreux pays d'Asie,

d'Amérique du Sud et d'Afrique l'indice moyen *TORT* est inférieur à 0,5 ce qui signifie que la torture y a été utilisée fréquemment durant de nombreuses années. Globalement seuls les pays d'Europe du nord comme le Danemark ou l'Allemagne ont des indices moyens élevés c'est-à-dire à supérieurs 1,5. Des pays comme le Canada ou l'Australie qui enregistrent un indice moyen *PHYSINT* parmi les plus élevés, n'ont pas un indice moyen *TORT* supérieur à 1,5.

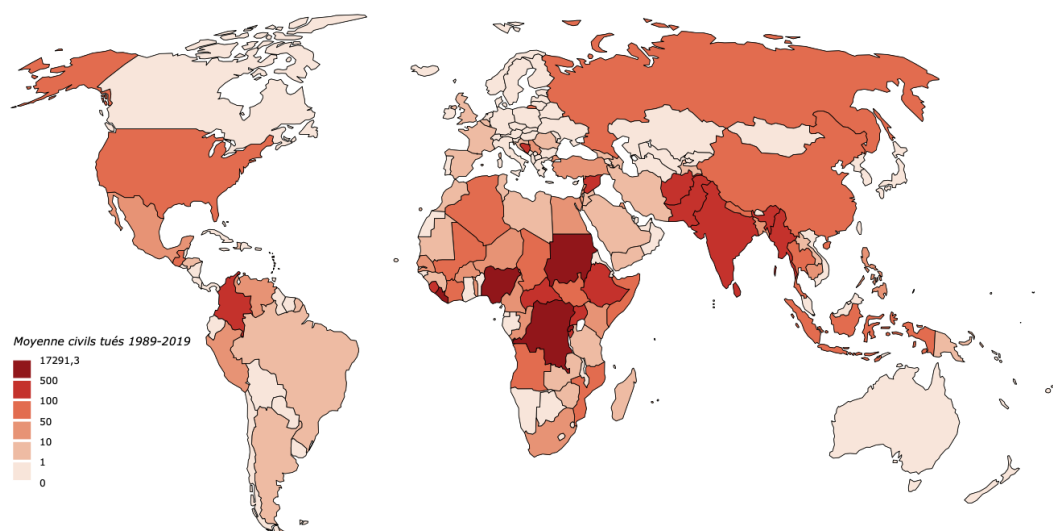
FIGURE 15: Indice moyen d'usage de la torture par pays entre 1981 et 2011



La carte du nombre de civils tués moyen par pays du monde entre 1989 et 2019 par des gouvernements et groupes non-gouvernementaux de la figure 16 apporte une information relativement proche de l'information des cartes des figures 14 et 15. La seule zone du monde où le nombre moyen de civils tués par an dépasse les 500 est l'Afrique centrale notamment en République Démocratique du Congo, au Nigeria ou encore au Liberia. Le Rwanda, également en Afrique centrale, culmine à plus de 17 000 principalement du fait du génocide dans les années 1990. Viennent ensuite les pays d'Asie du sud comme l'Inde, le Pakistan ou l'Afghanistan qui enregistrent un nombre de civils tués moyen par an sur la période supérieur à 100.

Ces cartes montrent que, si il existe sur la période considérée des zones relativement préservées de la criminalité pénale internationale, il y a sur la planète des "points chauds" où cette criminalité est structurellement élevée. Il s'agit en général de pays

FIGURE 16: Nombre moyen de civils tués par an entre 1989 et 2019



frontaliers ou proches avec des populations de plusieurs dizaines voire centaines de millions d'habitants.

### 0.3.3 Contribution

#### *Contribution générale de la thèse*

En proposant des contributions théoriques et empiriques à l'étude de la dissuasion de la criminalité pénale internationale, cette thèse s'inscrit dans le domaine d'application de l'économie du droit. L'ambition de ce travail est de nourrir et développer la réflexion sur ce thème encore très peu étudié par la littérature en économie du droit. En ce sens, les deux chapitres théoriques s'inscrivent pleinement dans la littérature sur l'*optimal law enforcement* (Garoupa (1997), Polinsky and Shavell (2000)). Dans la lignée d'autres travaux d'application sur le crime organisé de type *mafia* (Garoupa (2000), Garoupa (2007)) ou le crime organisé d'entreprise (Langlais (2009)) par exemple, ces chapitres appliquent le cadre théorique Beckerien à la situation spécifique de la criminalité pénale internationale. Le chapitre empirique est une contribution qui s'inscrit dans la vaste littérature quantitative sur la mesure de la dissuasion du crime (Levitt and Miles (2006), Chalfin and McCrary (2017)). A l'instar de travaux ayant évalué l'effet dissuasif de dispositifs spécifiques comme le déploiement de la police sur des *hot-spots* ((Braga, 2001)) ou la peine de mort (Kovandzic et al. (2009), Chalfin et al. (2013)), ce chapitre teste



et estime l'effet dissuasif d'une institution spécifique, la Cour pénale internationale.

### *Chapitre d'introduction*

Le chapitre d'introduction présente le thème de cette thèse et introduit aux méthodes d'analyse qui y sont utilisées. Il est d'abord montré, à l'aide d'éléments historiques et de données quantitatives, que la criminalité pénale internationale est essentiellement systémique, organisée sous des formes très hétérogènes et qu'elle génère un dommage social extrêmement lourd. Pour compléter la présentation de cette criminalité, les *core crimes* sont définis, leurs origines historiques respectives détaillées et des situations de crimes décrites. La deuxième section du chapitre présente les caractéristiques des différentes formes de justices pénales internationales et fait ressortir un double mouvement depuis Nuremberg. Le premier est une implication croissante des États, volontaire ou forcée, dans la mise en oeuvre de cette justice qui s'est matérialisée par le développement des poursuites nationales, des mécanismes hybrides, et de l'exercice de la compétence universelle. Le second est un mouvement de pérennisation principalement incarné par la Cour pénale internationale devenue le visage mondial d'une justice pénale internationale désormais permanente et aspirant à une forme d'omnipotence. La troisième section positionne cette thèse d'un point de vue méthodologique et montre les atouts de ce positionnement. Le cadre théorique Beckerien offre la possibilité de définir un objectif social clair et transparent et de discuter sur cette base l'intérêt des différents outils de dissuasion en matière de criminalité pénale internationale. L'outil empirique quantitatif est complémentaire à l'outil théorique Beckerien, il offre la possibilité de tester et mesurer des effets dissuasifs sur la base de données homogènes collectées dans un ensemble de pays, sur une même période de temps.

### *Chapitre 1*

Le chapitre 1 est théorique, il s'intéresse à la mise en oeuvre optimale de la politique répressive dans un contexte de criminalité pénale internationale. Cette criminalité est organisée et beaucoup de juridictions font le choix de concentrer les poursuites sur les leaders d'organisations. Bien que cette stratégie soit largement répandue, est-ce un choix judicieux, c'est-à-dire socialement optimal? Pour répondre à cette question,

il est proposé d'étudier à l'aide d'un modèle prenant la forme d'un jeu, l'interaction stratégique entre le leader d'une organisation commettant des crimes internationaux et la juridiction qui met en oeuvre la politique répressive. Il est supposé que le crime international s'organise autour du leader et d'un ensemble de criminels individuels. Le leader, compte tenu du bénéfice qu'il peut tirer du crime et de la politique répressive conduite par la juridiction à son encontre et à l'encontre des criminels individuels, décide du nombre de criminels qu'il recrute et de son niveau d'exposition personnel dans l'activité criminelle. Son exposition personnelle lui permet de convaincre les criminels individuels de sa "cause" et de les recruter à un salaire moins important mais augmente dans le même temps son niveau personnel de sanction espérée. Sur cette base, la juridiction en charge de la politique répressive décide la sévérité et la probabilité optimales de la sanction à la fois pour le leader et pour les criminels individuels. Les résultats du modèle montre que 1) la taille de l'organisation criminelle est décroissante à la fois du niveau de la sanction espérée pour les criminels individuels et pour le leader de l'organisation; 2) au delà d'un certain niveau de dommage social, la politique optimale de la juridiction implique d'investir des ressources dans la détection à la fois du leader et des criminels individuels. Le dommage social généré par le crime pénal international étant souvent extrêmement lourd, ces résultats suggèrent qu'il pourrait s'avérer socialement souhaitable d'investir des ressources, même coûteuses, dans la détection de l'ensemble des criminels internationaux et non pas uniquement dans la détection des leaders d'organisation.

## *Chapitre 2*

Le chapitre 2 est empirique, il s'intéresse à l'effet dissuasif de la Cour pénale internationale, devenue l'institution centrale de la justice pénale internationale dans le monde. A partir de 2002, le Statut de Rome donnant compétence à la CPI pour engager des poursuites en dernier ressort à l'encontre de criminels internationaux est ratifié progressivement par beaucoup de pays alors que d'autres ont fait le choix de rester en dehors du système de Rome. Cette ratification progressive dans le temps du Statut de Rome par certains pays, offre la possibilité de tester et mesurer l'objectif de dissuasion affiché de la CPI. La base de données utilisée pour mesurer la criminalité

pénale internationale, est la base *GED-UCDP* qui enregistre le nombre de civils tués intentionnellement par des gouvernements et groupes non-gouvernementaux dans tous les pays du monde sur la période 1989-2019. Ceci permet d'avoir une mesure de la criminalité pénale internationale sur un panel de 176 pays sur 31 années comprenant au minimum 14 années de pré-ratification pour tous les pays de l'échantillon. Le challenge principal du chapitre consiste à traiter de façon crédible l'endogénéité du processus de ratification susceptible de venir biaiser à la hausse ou à la baisse l'estimation de l'effet dissuasif de la CPI. Face à ce problème, la méthodologie proposée consiste à inclure à la spécification du modèle des effets fixes interactifs (IFE) permettant de capturer d'avantage d'hétérogénéité inobservée que les modèles avec double effets fixes pays et temps (TWFE). Cette méthode permet de capter des dynamiques expliquant la violence à l'encontre des civils dans les inobservables qui sont communes à tous les pays du monde et auxquels chaque pays contribue de manière différenciée. Les résultats des estimations en échantillon général n'indiquent pas d'effet dissuasif de la CPI sur les violences commises par les groupes gouvernementaux et non gouvernementaux. En revanche, un raffinement de l'analyse permet de montrer que dans les pays aux institutions fragiles où le niveau de violence est relativement élevé, la CPI génère un effet dissuasif sur les groupes non-gouvernementaux mais pas sur les gouvernements. Ces résultats s'expliquent par des différences d'incitations importantes entre gouvernements et groupes non-gouvernementaux qui sont détaillées dans le chapitre. Enfin, de façon peu surprenante, dans les pays aux institutions robustes avec une criminalité pénale internationale faible, il n'est pas détecté d'effet dissuasif de la CPI.

### *Chapitre 3*

Le chapitre 3 est théorique, il s'intéresse à la contribution à la dissuasion des organisations non gouvernementales (ONG) ayant pour activité de surveiller et dénoncer la commission de crimes internationaux à travers le monde. Ces ONG interagissent stratégiquement avec les gouvernements en charge de la politique pénale internationale et cette interaction stratégique modifie les incitations des gouvernements et des criminels pénaux internationaux. Le modèle développé dans le chapitre s'intéresse au cas d'un gouvernement biaisé qui sous-estime, du fait de préférences privées, le dommage

social causé par le crime pénal international. Il est d'abord montré qu'en l'absence d'une ONG qui surveille et dénonce les crimes internationaux, ce gouvernement choisit une probabilité de détection des criminels internationaux moins élevée qu'un gouvernement non biaisé. Il est ensuite considéré la présence d'une ONG, non biaisée dans la perception du dommage social du crime international, qui réagit à la politique pénale internationale menée par le gouvernement biaisé. L'activité de l'ONG inflige deux types de coûts. Le premier coût est infligé aux criminels internationaux dont les actes sont publiquement dénoncés et relayés. Ce coût s'additionne à la sanction espérée mise en place par le gouvernement et génère un effet dissuasif additionnel. Le second coût est infligé au gouvernement dont la dénonciation publique de crimes internationaux ternit l'image et peut lui faire perdre des soutiens politiques, des partenaires économiques ou commerciaux. Dans cette configuration, la présence d'une ONG augmente la probabilité de détection choisie par le gouvernement seulement si le coût infligé au gouvernement dépasse un certain seuil. Dans le cas contraire, l'activité de l'ONG est contre productive et a pour effet de réduire la probabilité de détection choisie par le gouvernement. De manière similaire, la dénonciation des crimes par l'ONG réduit le nombre de criminels internationaux dans la société uniquement si le coût infligé au gouvernement dépasse un certain seuil. Enfin, nous considérons le cas où l'ONG est biaisée vers le haut et surestime le dommage social généré par la criminalité pénale internationale. Dans cette configuration, la probabilité de détection choisie par le gouvernement est plus faible que lorsque l'ONG n'est pas biaisée et la différence s'accroît avec la magnitude du biais de l'ONG. Le nombre de criminels internationaux n'est pas affecté par le biais de l'ONG.

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# Chapitre 1

## On Optimal Enforcement in International Crime Setting<sup>1</sup>

### Abstract

National and international criminal courts often choose to focus prosecutions on the heads of organizations that commit international crimes. In this article we consider a game between a law enforcement authority and a head of a criminal organization who decides on his level of personal exposure to crime and the number of individual criminals he recruits. Our results highlight that, depending on the level of social harm and detection costs, optimal enforcement does not always imply concentrating enforcement resources on the head of the organization and may involve investing resources in detecting and sanctioning individual criminals who execute the crime for the head.

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## 1.1 Introduction

The twentieth century has been tarnished by particularly violent and atrocious international crimes. After World War II, the two lawyers Raphael Lemkin and Hersch Lauterpacht created the notions of crime of genocide and crimes against humanity used as charges at the Nuremberg Trial (see on that topic Sands (2017)). From that moment on, individual criminal responsibility became the core of international criminal law. This was the starting point of the international criminal justice. Since then, the enforcement of international crimes still represents a considerable challenge : in 2017 the *Uppsala Conflict Data Program* (UCDP) recorded 1074 incidents of civilian killings by governmental and non-governmental groups around the world for a total of nearly 8,000 deaths (Sundberg et Melander (2013), Croicu et Sundberg (2017)).

Over time, international criminal law has been enforced by international and national authorities with varying strategies. In particular, because international criminal investigations are relatively costly (Wippman, 2006) this has led authorities in most cases to target and concentrate resources on heads of criminal organizations. Concerning national authorities, we can cite the example of France, which between the 1980s and the 2000s prosecuted and convicted Klaus Barbie, Paul Touvier and Maurice Papon, all high-ranking officials during the crimes of the Second World War<sup>1</sup>. In the same vein, we can mention Finland which prosecuted and convicted François Bazaramba, a high-ranking Rwandan local leader, for genocide in 2009<sup>2</sup>. The International Criminal Court (ICC) launched in 2002 as the first permanent international court in history to prosecute individuals for international crimes is also an example that illustrates this strategy particularly well. With 37 arrest warrants issued and 8 convictions<sup>3</sup>, the ICC targets almost exclusively heads of criminal organizations. This paper addresses the following question : is this prevailing tendency in international criminal law enforcement to invest resources only on the heads of organizations the socially optimal strategy or

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1. Details on each case available at : <http://www.internationalcrimesdatabase.org/Cases/ByCategory/CrimesAgainstHumanity>

2. Press release of the judgement available at [https://www.asser.nl/upload/documents/DomCLIC/Docs/NLP/Finland/Bazaramba\\_Press\\_Release\\_EN.pdf](https://www.asser.nl/upload/documents/DomCLIC/Docs/NLP/Finland/Bazaramba_Press_Release_EN.pdf)

3. ICC judicial record available (in February 2020) at : <https://www.icc-cpi.int/Pages/defendants-wip.aspx>

should individual criminals of these organizations also be targeted ?

So far, the theoretical literature on the topic is limited. A growing literature in political science uses game theory to explore whether an international authority such as the ICC can generate a deterrent effect on leaders. According to this literature, beyond generating a deterrent effect on leaders under certain conditions (Ali, 2014), the ICC would make the denial of political asylum by foreign countries more frequent generating an additional cost for leaders (Gilligan, 2006). Moreover according to Ritter et Wolford (2012), a court such as the ICC that does not negotiate with suspects on the severity of its sanctions would have a significant deterrent potential. This literature focuses on individual incentives and specifically on the incentives of the heads of criminal organization. The incentives of other members of the organization, namely the individual criminals executing these crimes, are not considered, nor is the organizational aspect of these crimes.

Concerning law and economics literature, we rely on the literature on organized crime, which is the closest to the characteristics of international crimes (see the seminal paper of Garoupa (2000) in this literature). This paper is particularly close to two papers that deal with the allocation of sanctions in a context of organized crime. Garoupa (2007) in a mafia-type organized crime environment and Langlais (2009) in a corporate crime environment use a principal-agent framework and show that the allocation of sanctions between the principal and the agent is not neutral on the optimal probability of detection and on the level of social welfare.

Robust empirical evidence on the deterrent effect of international criminal law is still scarce and mainly concern one authority, the ICC. Using a panel of 176 countries over the period 1989-2017 with interactive fixed effects, Lecorps et Monnery (2020) find, in contrast to most prior research (Jo et Simmons (2016), Appel (2018)) no evidence of a deterrent effect of the ICC on killings by governments and robust evidence of sizable deterrence among non-governmental groups.

In this paper, we provide an *a la* Becker (1968) analysis of the optimal enforcement law in international crime setting. Our model represents a relationship between the head of the criminal organization and the individual criminals who execute crimes for

the head. The head of the organization maximises the surplus he derives from crime by deciding both the number of individual criminals he recruits and his level of personal exposure to criminal activity. By increasing its level of exposure, the principal convinces individual criminals and reduces their disutility to engage in crime. At the same time this exposure makes his involvement in the crime more visible and increases the expected sanction if he is detected by the authority. The authority enforcing international criminal law decides, taking into account the strategy of the principal, the optimal severity and probability of sanction for the head of the organization and for individual criminals.

In such a context, the size of the criminal organization is negatively affected by the sanction of the agents and by the sanction of the head of the organization. The level of personal exposure of the head is also negatively affected by these sanctions. Most importantly, our results suggest that optimal law enforcement does not imply sanctioning the head of the organization at all costs but may require investing resources in individual criminals. The article is organized as follows : section 2 presents a model in which successively the behavior of the individuals, the head of the criminal organization, the authority enforcing international criminal law are analyzed and discuss. Section 3 highlights the main conclusions of this article.

## **1.2 Model**

### **1.2.1 Framework**

The structure of the model is largely inspired by Garoupa (2007). There are three actors interacting with each other : the individual criminals, the head of the criminal organization, and the authority enforcing international criminal law. There is an agency relationship between the head of the organization who is the principal and the individual criminals who execute the crime for the principal. There is a strategic interaction between the head of the organization and the authority. The authority plays first and decides on the optimal severity and probability of sanctions for individual criminals and the head of the organization. The head of the organization then decides

on the optimal number of agents he recruits and his optimal level of exposure to the crime. We have a sequential game and we solve it by backward induction under perfect information.

### 1.2.2 Agents : individual criminals

We define the utility of a risk-neutral individual who considers the possibility to commit international crimes :

$$U = y - pf - \frac{d}{e} \geq 0 \quad (1.1)$$

On the gain side  $y > 0$  is the salary that the principal offers to the agents. On the costs side  $pf \geq 0$  is the expected sanction for an agent who engages in the international crime. This expected sanction is a combination of a probability  $0 \leq p \leq 1$  of being detected and sanctioned and the associated monetary<sup>4</sup> sanction  $f \geq 0$ . The disutility of an agent to work and commit crimes for the principal is  $d$ . This disutility represents the agent's degree of adherence to the principal's cause and varies across the population according to a uniform distribution on  $d \in [0, 1]$ . The smaller (higher) the  $d$ , the more (less) the agent supports the principal's cause. Finally,  $e > 0$  is the level of exposure of the principal. By exposure we have in mind when the leader shows up on the field, possibly holds meetings to convince and motivate individuals, or leads by example by contributing himself to crime. This exposure of the principal generates persuasion on individual criminals but at the cost of greater visibility as we will develop in the next section. From  $\frac{d}{e}$ , we see that the work of conviction carried out by the principal will mitigate the effect of  $d$  on the overall utility  $U$  of the agents. The opportunity cost or outside option for individuals is normalized to 0. The participation constraint of the agents to the criminal activity is thus defined by :

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4. In reality, the type of sanction varies according to the authority and situation. For instance, Jean-Pierre Bemba was sentenced by the ICC to a €300,000 fine combined with a prison sentence (<https://www.icc-cpi.int/Pages/item.aspx?name=pr1287>), while Adolf Eichmann was sentenced to death by the Israeli courts <http://www.internationalcrimesdatabase.org/Case/185/Eichmann/>. Here for the sake of simplicity, we stick to the basic Beckerian specification using a monetary sanction.

$$y = pf + \frac{d}{e} \quad (1.2)$$

From 1.2 we note  $y$  the salary demanded by individual criminals is always an increasing function of  $pf$  and each agent has a price for which he is willing to participate in the crime. This price varies according to  $d$  the agent's degree of adherence to the cause of the principal and is a decreasing function of  $e$  the level of exposure of the principal.

### 1.2.3 Principal : the head of the organization

The principal maximises a surplus he derives from crime by choosing the number of individual criminals he recruits and his level of exposure. Given the uniform distribution of the degree of adherence in the population, the number of individuals recruited by the principal is given by :  $n = \int_0^{\bar{d}} dd$  hence  $n = \bar{d}$ . The surplus of the principal is :

$$S = \int_0^{\bar{d}} \left( g - pf - \frac{d}{e} - e - eqs \right) dd = n[g - pf - e(1 + qs)] - \frac{n^2}{2e} \quad (1.3)$$

With  $g > 0$  the illegal gain<sup>5</sup> per agent from crime derived by the head of the organization. The first part of the cost for the principal is the salary paid to the agents  $pf + \frac{d}{e}$ . The second part of the principal's costs relates to the exposure of the head with the logistical costs (e.g. travel, meetings) represented by  $e$  and the cost in terms of expected sanctions represented by  $eqs$ . As for agents, the expected sanction of the principal  $qs$  is a combination of a probability  $0 \leq q \leq 1$  of being detected<sup>6</sup> and sanctioned and the associated monetary sanction  $s \geq 0$ . More precisely  $qs$  is the expected sanction for the principal per recruited agent and  $nqs$  the total expected sanction for the principal. This expected sanction is increasing with the level of exposure  $e$  since a higher exposure makes him more visible and therefore more vulnerable to sanction.

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5. This gain is to be considered *lato sensu* given the diversity of motivations in this context (political, religious, financial, etc).

6. We assume that the detection of the head of the organization and individual criminals have enough little in common that their respective detection probabilities  $q$  and  $p$  are independent.



The principal maximises his surplus and the first-order conditions with respect to  $n$  and  $e$  are :

$$\frac{\partial S}{\partial n} = 0 \iff g - pf - e - eqs - \frac{n}{e} = 0 \quad (1.4)$$

$$\frac{\partial S}{\partial e} = 0 \iff -n - nqs + \frac{n^2}{2e^2} = 0 \quad (1.5)$$

Second order conditions are available in Appendix A. Expressions 1.4 and 1.5 show the marginal costs and benefits of hiring agents and exposing himself for the head of the organization. The marginal gain of hiring agents comes from  $g$  the illegal gain from crime, while the marginal gain of exposure comes from  $\frac{n^2}{2e^2}$  the effect of exposure on the level of disutility of individual criminals transiting through 1.2. From 1.4 and 1.5 we derive  $(n^{BR}, e^{BR})$  the best-reply functions of the principal to the authority's strategy :

$$n^{BR} = \frac{2(g - pf)^2}{9(1 + qs)} \quad (1.6)$$

$$e^{BR} = \frac{g - pf}{3(1 + qs)} \quad (1.7)$$

**Corollary 1.** *The number of criminals recruited as well as the level of exposure of the principal is decreasing from the level of sanction expected by the head of the organization and by the individual criminals.*

Not surprisingly,  $n^{BR}$  is a decreasing function of  $pf$  since the salary  $y$  demanded by individual criminals always increases with  $pf$  and the surplus of the principal decreases with the level of  $y$ . The optimal number of agents recruited by the principal is also a decreasing function of  $qs$  since it increases the marginal cost of each agent recruited by the principal. The optimal level of exposure  $e^{BR}$  of the principal decreases with  $pf$  since it becomes less attractive for the principal to be exposed when the agents' salary

increases with  $pf$ . Finally,  $e^{BR}$  decreases in  $qs$  because the sanction of the principal increases the marginal cost of the exposure. Both sanctions are relevant to reduce the size of the criminal organization as well as the exposure of the principal that allows more individual criminals to engage in crime. The problem of the authority that enforces international criminal law is to set the levels of severity and probability of these sanctions that maximize social welfare.

### 1.2.4 Welfare

The authority<sup>7</sup> enforcing international criminal law plays first and anticipates the reaction  $(n^{BR}, e^{BR})$  of the principal to its strategy. Social welfare is defined by the sum of surpluses of all actors in society minus the social harm of crime and public expenditure allocated to law enforcement such as :

$$W = \int_0^{\bar{d}} \left( g - h - e - \frac{d}{e} \right) dd - c_p p - c_q q = n^{BR} [g - h - e^{BR}] - \frac{(n^{BR})^2}{2e^{BR}} - c_p p - c_q q \quad (1.8)$$

$$\text{s.t. } f \leq F$$

$$\text{s.t. } s \leq S$$

With  $h > 0$  the social harm of international crime. We assume that the social harm of crime is greater than the benefit of crime hence  $h > g$ . This assumption is standard in the literature and seems particularly reasonable in the context of international crimes where the social harm is particularly high. The marginal costs of public expenditure when the authority increases  $p$  and  $q$  are respectively  $c_p > 0$  and  $c_q > 0$ . We note that the salary received by the agents is a monetary transfer from the head of the organization and does not affect social welfare. The severity of the sanctions is constrained

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7. The term "authority" is considered *lato sensu* here since international criminal law can be enforced by national or international authorities (such as the ICC), one has in mind an authority that can enforce sanctions.

by a finite monetary value  $F$  for the agents and  $S$  for the principal such that  $f \leq F$  and  $s \leq S$ . The authority must maximize social welfare under these constraints. By integrating the best-reply functions of the head of the organization 1.6 and 1.7 into 1.8 we can rewrite the problem as :

$$W = \left[ \frac{2(g - pf)^2}{9(1 + qs)} \right] \times \left[ g - h - \frac{g - pf}{3(1 + qs)} \right] - \left[ \frac{2(g - pf)^2}{9(1 + qs)} \right]^2 \times \left[ \frac{3(1 + qs)}{2(g - pf)} \right] - c_p p - c_q q \quad (1.9)$$

$$\text{s.t. } f \leq F$$

$$\text{s.t. } s \leq S$$

The authority's four tools for maximizing social welfare are :  $f$ ,  $p$ ,  $s$ ,  $q$ . As the literature usually assume (Garoupa (1997), Polinsky et Shavell (2000)), fines  $f$  and  $s$  are costless transfers. First order conditions with respect to  $f$ ,  $p$ ,  $s$ ,  $q$  are :

$$\frac{\partial W}{\partial f} = \left[ -p \frac{4(g - pf)}{9(1 + qs)} \right] \times [g - h] + p \frac{6(g - pf)^2}{27(1 + qs)^2} + p \frac{6(g - pf)^2}{27(1 + qs)} \quad (1.10)$$

$$\frac{\partial W}{\partial p} = \left[ -f \frac{4(g - pf)}{9(1 + qs)} \right] \times [g - h] + f \frac{6(g - pf)^2}{27(1 + qs)} + f \frac{6(g - pf)^2}{27(1 + qs)^2} - c_p \quad (1.11)$$

$$\frac{\partial W}{\partial s} = \left[ -q \frac{2(g - pf)^2}{9(1 + qs)^2} \right] \times [g - h] + q \frac{4(g - pf)^3}{27(1 + qs)^3} + q \frac{2(g - pf)^3}{27(1 + qs)^2} \quad (1.12)$$

$$\frac{\partial W}{\partial q} = \left[ -s \frac{2(g - pf)^2}{9(1 + qs)^2} \right] \times [g - h] + s \frac{4(g - pf)^3}{27(1 + qs)^3} + s \frac{2(g - pf)^3}{27(1 + qs)^2} \quad (1.13)$$

Equations 1.10, 1.11, 3.12, 3.22 reveal the marginal benefits and costs of each tool

used by the authority to enforce international criminal law. We precise here that because of 1.2 the level of exposure of the principal  $e$  must be strictly positive thus  $(g - pf) > 0$ . Let us start by looking at the optimal enforcement regarding the head of the organization.

**Proposition 1.** *Assume  $e > 0$ . Define  $h_{q_0} = pF + c_q \left[ \frac{9}{2S(g-pF)^2} \right]$  and  $h_{q_1} = \frac{2gS+pF(3+S)}{3(1+S)} + c_q \left[ \frac{9(1+S)^2}{2S(g-pF)^2} \right]$ . The optimal severity of sanction for the principal is the maximum sanction  $s^* = S$ . The optimal probability of detection and sanction for the principal is :  $q^* = 0$  when  $h \leq h_{q_0}$ ,  $0 < q^* < 1$  when  $h_{q_0} < h < h_{q_1}$  and  $q^* = 1$  when  $h \geq h_{q_1}$ .*

**Proof.** First, from 1.4 we know that  $e > 0$  implying  $(g - pf) > 0$ . Second by assumption the social harm of the crime is high enough for  $(g - h) < 0$ . Therefore  $\left[ -q \frac{2(g-pf)^2}{9(1+qs)^2} \right] \times [g - h] > 0$  and  $q \frac{4(g-pf)^3}{27(1+qs)^3} + q \frac{2(g-pf)^3}{27(1+qs)^2} > 0$  hence  $\frac{\partial W}{\partial s} > 0$ . Since  $W$  is increasing in  $s$ , hence the authority sets the maximum severity of sanction such as  $s^* = S$ . For the optimal probability of detection and sanction of the principal  $q^*$ , the conditions for an interior solution are :

$$\frac{\partial W}{\partial q} \Big|_{q=0} > 0 \iff \left[ -S \frac{2}{9} (g - pF)^2 \right] \times [g - h] + S \frac{6}{27} (g - pF)^3 - c_q > 0 \quad (1.14)$$

$$h > pF + c_q \left[ \frac{9}{2S(g - pF)^2} \right] \equiv h_{q_0} \quad (1.15)$$

And

$$\frac{\partial W}{\partial q} \Big|_{q=1} < 0 \iff \left[ -S \frac{2(g - pF)^2}{9(1 + S)^2} \right] \times [g - h] + S \frac{4(g - pF)^3}{27(1 + S)^3} + S \frac{2(g - pF)^3}{27(1 + S)^2} - c_q < 0 \quad (1.16)$$

$$h < \left[ \frac{2gS + pF(3 + S)}{3(1 + S)} \right] + c_q \left[ \frac{9(1 + S)^2}{2S(g - pF)^2} \right] \equiv h_{q_1} \quad (1.17)$$

Both  $h_{q_0}, h_{q_1} > 0$ . We also have  $h_{q_1} > h_{q_0}$  because  $\left[ \frac{2gS+pF(3+S)}{3(1+S)} \right] + c_q \left[ \frac{9(1+S)^2}{2S(g-pF)^2} \right] > pF + c_q \left[ \frac{9}{2S(g-pF)^2} \right] \iff \frac{2S(g-pF)}{3(1+S)} + \frac{9c_q(2+S)}{2(g-pF)^2} > 0$ . Therefore when  $h \leq h_{q_0}$ , then  $q^* = 0$ ,

when  $h \geq h_{q_1}$ , then  $q^* = 1$  and when  $h_{q_0} < h < h_{q_1}$ , then  $0 < q^* < 1$ .  $\square$

The authority first uses the severity of sanction up to its maximum  $s^* = S$  before investing public expenditure in detecting and sanctioning the head of the organization. This is the standard Beckerian result when the sanction is monetary : for a given level of deterrence it is always preferable to use the severity up to its maximum before investing resources in detection. The optimal probability of detection and sanction of the principal then depends on the level of social harm generated by the international crime. When the social harm of the crime is sufficiently high, *i.e.* above or equal  $h_{q_0}$ , the optimal policy involves investing resources in detection. Below this threshold, the social harm of the crime is relatively too small to invest resources in detecting the principal and the authority sets  $q^* = 0$ . When  $h_{q_0} < h < h_{q_1}$ , the optimal probability of detection and sanction is between zero and one. Above  $h_{q_1}$  the social harm of international crime is so high that the optimal probability of sanction is one. The level of thresholds  $h_{q_0}$ ,  $h_{q_1}$  increases with the marginal cost of public spending of detection  $c_q$ . In other words, optimal law enforcement requires investing resources in the detection of the principal if the level of social harm caused by the crime is sufficiently high, but also if the cost of detection is not too high. One could think that the former is likely to be often verified in a context of international criminality where crimes are massive and very harmful. The latter is probably more rarely verified since the head of the organization may, depending on the context, have many resources at his disposal (political asylum, support and help from the population, etc.) which can make its detection and sanction very costly. In this case, even if the harm of the crime is high, a very high detection cost may involve that it is not optimal to invest resources in the detection of the principal. Nevertheless, it may sometimes be the case, for example through effective international cooperation by States, that it is not very costly to detect the head of the organization. In this case, optimal enforcement may involve investing resources in sanctioning the principal. Let us then consider the optimal enforcement regarding agents.

**Proposition 2.** *Assume  $e > 0$ . Define  $h_{p_0} = \frac{gqS}{2(1+qS)} + c_p \left[ \frac{9(1+qS)}{4Fg} \right]$  and  $h_{p_1} = \frac{gqS+F(2+qS)}{2(1+qS)} + c_p \left[ \frac{9(1+qS)}{4F(g-F)} \right]$ . The optimal severity of sanction for agents is the maximum sanction*

$f^* = F$ . The optimal probability of detection and sanction for agents is :  $p^* = 0$  when  $h \leq h_{p_0}$ ,  $0 < p^* < 1$  when  $h_{p_0} < h < h_{p_1}$ , and  $p^* = 1$  when  $h \geq h_{p_1}$ .

**Proof.**

As for proof of proposition 1, we know that  $e > 0$  implying  $(g - pf) > 0$ . Second by assumption the social harm of the crime is high enough for  $(g - h) < 0$ . Therefore  $\left[-p \frac{4(g-pf)}{9(1+qs)}\right] \times [g - h] > 0$  and  $p \frac{6(g-pf)^2}{27(1+qs)^2} + p \frac{6(g-pf)^2}{27(1+qs)^2} > 0$ , hence  $\frac{\partial W}{\partial f} > 0$ . Since  $W$  is increasing in  $f$ , hence the authority sets the maximum severity of sanction such as  $f^* = F$ . For the optimal probability of detection and sanction of agents  $p^*$ , the conditions for an interior solution are :

$$\frac{\partial W}{\partial p} \Big|_{p=0} > 0 \iff \left[-F \frac{4g}{9(1+qS)}\right] \times [g - h] + \frac{6Fg^2}{27(1+qS)^2} + \frac{6Fg^2}{27(1+qS)} - c_p > 0 \quad (1.18)$$

$$h > \frac{gqS}{2(1+qS)} + c_p \left[\frac{9(1+qS)}{4Fg}\right] \equiv h_{p_0} \quad (1.19)$$

And

$$\frac{\partial W}{\partial p} \Big|_{p=1} < 0 \iff \left[-F \frac{4(g-F)}{9(1+qS)}\right] \times [g - h] + \left[F \frac{6(g-F)^2}{27(1+qS)^2}\right] + \left[F \frac{6(g-F)^2}{27(1+qS)}\right] - c_p < 0 \quad (1.20)$$

$$h < \frac{gqS + F(2+qS)}{2(1+qS)} + c_p \left[\frac{9(1+qS)}{4F(g-F)}\right] \equiv h_{p_1} \quad (1.21)$$

Both  $h_{p_0}, h_{p_1} > 0$  and it is direct that  $h_{p_0} < h_{p_1}$ . Therefore when  $h \leq h_{p_0}$ , then  $p^* = 0$ , when  $h \geq h_{p_1}$ , then  $p^* = 1$  and when  $h_{p_0} < h < h_{p_1}$ , then  $0 < p^* < 1$ .  $\square$

As for the head of the organization, since the fine is not costly,  $W$  is increasing in  $f$  and the optimal sanction for agents is the maximum sanction  $f^* = F$ . The level of social harm caused by crime is also a key point regarding the optimal probability of detection of agents. Below  $h_{p_0}$ , the optimal probability of detection of agents is zero because the harm caused by the criminal organization is relatively too low. For an

intermediate level of harm  $h_{p_0} < h < h_{p_1}$ , the optimal policy of the authority is to invest a certain amount in agent detection such that  $0 < p^* < 1$ . Above  $h_{p_1}$  the harm is so high that the authority invests resources in such a way that agents are detected and sanctioned with certainty. As for the head of the organization, these thresholds depend on the level of the marginal cost of public expenditure and the higher  $c_p$  is, the higher  $h_{p_0}$  and  $h_{p_1}$  are. Again, one might think that the social harm of the international crime committed by the organization is likely to be very high and can often be significant enough that  $h > h_{p_0}$ . It could also be argued that the marginal cost of detection for agents  $c_p$  is likely to be lower than for the head of the organization, which would imply a relatively low level of  $h_{p_0}$ . This result suggests that in a significant number of cases, optimal enforcement could require investing resources in the detection of agents.

These results suggest that the head and the individual criminals who execute the crimes are generating common social harm, but their detection costs can vary significantly depending on the context. The optimal enforcement of international criminal is therefore based on the proportionality between a common harm of the crime and specific costs of enforcement.

### 1.3 Concluding remarks

In this article we analyze the optimal law enforcement in international crime setting. We model an organized structure of the international crime with a head of the organization who is the principal and recruits individual criminals who are the agents. The principal is able to generate conviction among agents, which enables him to recruit them at a lower salary, but at the cost of greater exposure to the sanction he incurs. In such an environment, both principal and agent sanctions are relevant tools to reduce the size of the organisation and the exposure of the principal that favors the entry of individual criminals into the crime. We then analyze the optimal enforcement of international criminal law in a sequential framework where the authority plays first and anticipates the strategy of the head of the organization. The optimal enforcement of international criminal law depends on the social harm of the crime common to principals and agents and the costs of enforcement specific to each of them. Our results

suggest that optimal enforcement does not always require investing resources in detecting and sanctioning the head, whereas it may require investing resources in detecting and sanctioning the agents.

These results both partially support and partially question the prevailing strategy of many authorities currently enforcing international criminal law around the world. First, they support this strategy because most authorities tend to prosecute the most serious cases of international crimes, i.e. those where the social harm is very high because the costs of enforcing international criminal law are often very high. Then they question this strategy because the authorities tend to concentrate enforcement resources on the heads of organizations, whereas our results highlight that this is not necessarily the optimal strategy.



## Appendix A

The point  $(n^{BR}, e^{BR}) = \left( \frac{2(g-pf)^2}{9(1+qs)}, \frac{g-pf}{3(1+qs)} \right)$  is candidate and the Hessian matrix is :

$$H_S = \begin{pmatrix} [S_{nn}(n_0, e_0)] & [S_{ne}(n_0, e_0)] \\ [S_{en}(n_0, e_0)] & [S_{ee}(n_0, e_0)] \end{pmatrix} = \begin{pmatrix} \left[ \frac{-1}{e} \right] & \left[ -1 - qs + \frac{n}{e^2} \right] \\ \left[ \frac{1}{2e^2} \right] & \left[ \frac{-n}{e^3} \right] \end{pmatrix}$$

$$H_S = \begin{pmatrix} \left[ \frac{-3(1+qs)}{g-pf} \right] & \left[ -1 - qs + \left( \frac{2(g-pf)^2}{9(1+q)} \right) \times \left( \frac{3(1+qs)}{g-pf} \right) \right] \\ \left[ \frac{1}{2} \times \left( \frac{3(1+qs)}{g-pf} \right)^2 \right] & \left[ \left( \frac{-2(g-pf)^2}{9(1+qs)} \right) \times \left( \frac{3(1+qs)}{g-pf} \right)^3 \right] \end{pmatrix}$$

The determinant is :

$$d_H = [S_{nn}(n_0, e_0)] \times [S_{ee}(n_0, e_0)] - [(S_{en}(n_0, e_0))^2]$$

After some simplification :

$$d_H = \frac{18(1+qs)^4}{(g-pf)^3} - \frac{9(1+qs)^3}{2(g-pf)^3}$$

Therefore,  $\frac{18(1+qs)^4}{(g-pf)^3} > \frac{9(1+qs)^3}{2(g-pf)^3}$  and  $d_H > 0$ . Since  $S_{nn}(n_0, e_0) < 0$ , then  $(n_0, e_0)$  is a maximum.

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## Chapitre 2

# Does the International Criminal Court Reduce Violence Against Civilians ? <sup>1</sup>

### Abstract

The International Criminal Court (ICC) was launched in 2002 with the purpose of fighting impunity and deterring the commission of international crimes. In this paper, we investigate whether the ICC effectively deters ruling leaders and criminal groups under its jurisdiction from engaging in egregious violence against civilians. We exploit civilian killings data from a panel of 176 countries over the period 1989-2019 during which 123 countries incrementally decided to ratify the Rome Statute and recognize the jurisdiction of the ICC, while others never did. Due to the strong suspicion of endogeneity of the ratification process, we rely on flexible panel data models with interactive fixed effects to account for potentially complex country-specific trends. We find no evidence of any deterrence in the full sample of countries. However, we find that the probability and intensity of civilian killings by non-governmental forces decreases quite substantially after ratification in high-risk countries, i.e. countries that were marked by civil violence and weak institutions in the 1990s. Conversely, civilian killings by governmental forces appear unaffected by the ICC even in high-risk countries, a pattern that is consistent with the institutional fragility of the Court.

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1. This chapter is co-authored with Benjamin Monnery (Université Paris X Nanterre - EconomiX)

## 2.1 Introduction

Mass atrocities during the twentieth century led the international community to draft the Rome Statute in 1998 and launch the International Criminal Court (ICC) in July 2002. The ICC stands as the first permanent international court specialized in the most egregious forms of violence, e.g. genocide, crimes against humanity and war crimes. The goals of the ICC, as stated in the Preamble of the Rome Statute, are “to put an end to impunity for the perpetrators of [international] crimes and thus contribute to the prevention of such crimes”<sup>1</sup>. Kofi Annan, then-secretary general of the United Nations, claimed that “[t]he Court offers to the world an indispensable tool to prevent new atrocities”<sup>2</sup>. But the potential for the ICC to deter atrocities by governments, rebels and other organized groups has long been a controversial issue among scholars (see Philips (2016) for a review). Critics even argue that the ICC may be an obstacle to peace as contested leaders may exert more egregious violence to retain their hold on power domestically and escape international liability in front of the ICC.

The impact of the ICC on the occurrence and severity of international crimes remains an open empirical question. Would civilians across the globe experience more frequent and more extreme violence without the International Criminal Court? In this paper, we estimate the effect of ratification of the Rome Statute on countries’ future records of egregious crimes against civilians. Our dependent variable is the occurrence and intensity, at the country-year level, of one-sided violence leading to intentional civilian deaths, as recorded in the UCDP-Georeferenced Event Dataset (Sundberg and Melander, 2013). Such crimes typically qualify as international crimes under the scrutiny of the ICC. We conduct our analysis in a large sample of 176 countries over three decades, covering all the countries which ratified the Rome Statute as well as countries who experienced killings of civilians in the UCDP-GED data<sup>3</sup>. Our period of study ranges from 1989 to 2019, allowing enough time both before and after implementation of the ICC in 2002 and its first conviction in 2012. The killings data allow us

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1. See page 1 of the Rome Statute Preamble available on the Court’s website : [www.icc-cpi.int](http://www.icc-cpi.int)

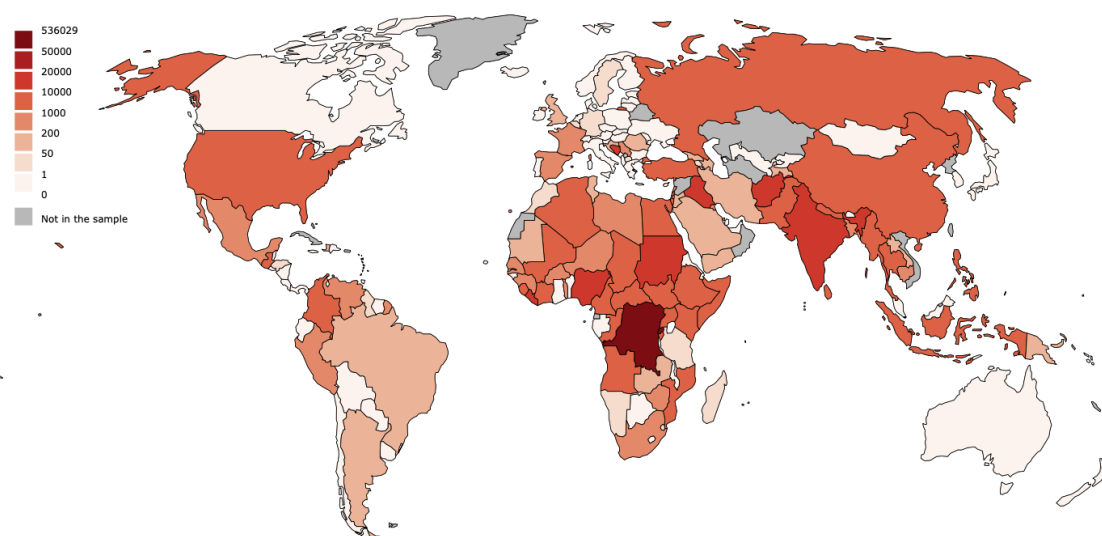
2. Press statement by the UN Secretary General on July 1 2002 : <https://www.un.org/press/fr/2002/SGSM8293.doc.htm>

3. See Figure 2.9 in Appendix for a map of sampled countries.

to distinguish between violence committed by ruling leaders (governments) and non-governmental groups (called rebels for simplicity), and to consider both the occurrence of any civilian death (extensive margin of violence) as well as the number of civilians killed (intensive margin) per country per year.

Figure 2.1 shows the world map of the total number of civilians intentionally killed by an organization (governmental or non-governmental) over the period 1989-2019. Because the prevalence of civilian killings is so heterogeneous across continents and countries, we decompose our analysis between high-risk countries, where the potential for violence and deterrence is highest, and low-risk countries where there is little violence to deter anyway. Our risk measure is based on three indicators all measured pre-ICC (from 1989 to 2001) : rule of law, judicial independence and prevalence of civilian killings.

FIGURE 2.1: Civilians killed worldwide over the period 1989-2019



Our contribution is to address the important question of the deterrent effect of the ICC while taking the threat of endogeneity and country-specific trends seriously. Indeed, country leaders may decide to accept the jurisdiction of the ICC only when they expect that the benefits will outweigh the costs (Miles and Posner, 2008)<sup>4</sup>. Such

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4. In a more general setting, Miles and Posner (2008) consider treaty ratification as the result of a trade-off between gains from cooperation (in the form of public goods, such as environmental protection or peace) and transaction costs in negotiating and enforcing treaties. They provide cross-country evidence that ratifications are broadly consistent with simple theoretical predictions in many

strategic behavior will most probably lead the decision to ratify and the timing of ratification by a government to be related with past, current or even future expected violence in the country. Hence, country-specific trends in unobservables will drive both ratification and violence, yielding endogeneity bias on the estimate of the effect of the ICC.

As a benchmark, we provide estimates from traditional panel-data regressions known as Two-Way Fixed Effects (TWFE), i.e. specifications with country- and year-fixed effects. Such models rely on two very strong assumptions : constant-over-time country-specific unobservables (country FE) and common-to-all-countries changes over time (year FE). We show that implementing such naive regressions yields large significant “effects” of ICC on violence against civilians, but also disturbingly large and implausible “effects” of the ICC on population or GDP growth. Adding potential determinants of violence as covariates (like GDP or population growth) may help, but killings most likely crucially depend on hard-to-measure factors (e.g. civil society empowerment, waves of political turmoil, etc.) that ruling leaders can possibly track and even anticipate. Therefore, we move to a much more flexible panel-data method proposed by Bai (2009), the Interactive Fixed Effects (IFE), to account for these trends in the underlying risk of violence at the country level. With IFE, we do not assume that countries display constant unobservable propensities to experience civilian violence but allow these propensities to evolve over time through time trends that are specific to each country and highly non-linear. This much more flexible specification better captures the path-dependent and context-specific nature of both civilian violence and adherence to international treaties.

Theoretically, the potential for deterrence by the ICC is ambiguous because, while the Court is operative and now employs more than 1,000 agents, it remains fragile institutionally. The ICC is the result of a decade-long negotiation between countries at the United Nations (UN), involving many compromises. While the Prosecutor of the ICC is independent and can open investigations on individual top-rank decision-makers, the ICC is a court of last resort with jurisdiction only in situations where domestic

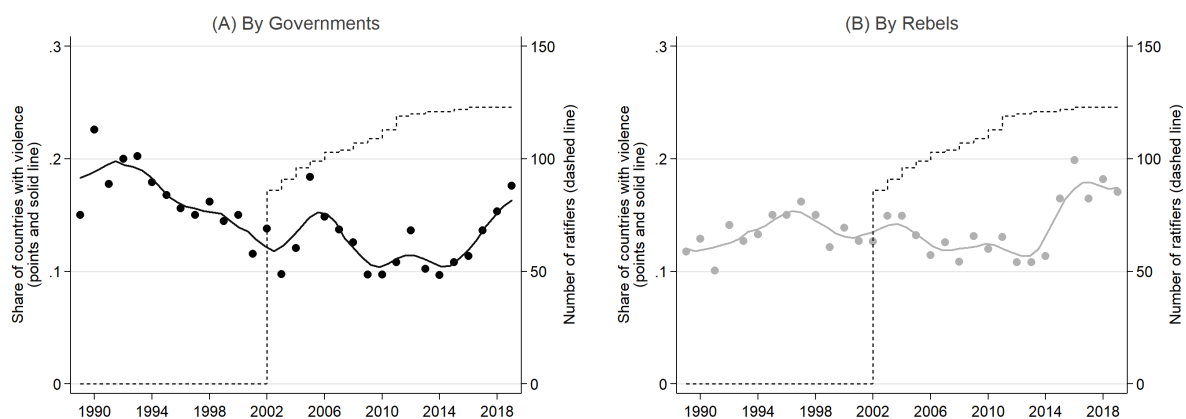
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dimensions (number of treaties ratified, bilateral vs multilateral treaties, reservations, etc.), based on countries’ population size, income or corruption level.



courts are failing. Moreover, the Court relies on states' cooperation and adhesion to the Rome Statute (the ICC has no police to arrest alleged criminals and no jurisdiction in non-ratifying countries). Probably as a result of these institutional weaknesses, the current judicial record of the ICC is limited : only 8 individuals were convicted since 2002<sup>5</sup> and 27 investigations are ongoing or closed.<sup>6</sup> The first president of the ICC, Judge Philippe Kirsch, was well aware of the legal and practical challenges faced by the Court in terms of punishing and deterring criminals : "Only history will tell whether the deal in Rome was the good one" (Kirsch and Robinson, 1999). Almost 20 years after its launch, we seek to provide evidence on the merits and limits of the ICC in terms of reducing extreme violence against civilians.

FIGURE 2.2: Violence against Civilians and Ratification over Time



Note : each point measures the fraction of countries in the sample where one-sided violence (by governments or rebels) leads to civilian deaths in a given year. Solid lines are obtained by kernel smoothing (Epanechnikov) with  $\pm 1$ -year bandwidth.

As an introduction to our research question, Figure 2.2 shows the worldwide patterns of violence against civilians (based on the UCDP-GED data<sup>7</sup>) and ratification of the Rome Statute from 1989 to 2019. More than 80 countries officially recognized the jurisdiction of the ICC in the first year of the Court in 2002, followed gradually by more

5. The first conviction by the Court, in 2012, punished the Congolese rebel leader Thomas Lubanga to a sentence of 14 years of imprisonment for enlisting child soldiers in his rebel army in Congo. Details on these convictions available at <https://www.icc-cpi.int/Pages/cases.aspx>

6. Figure 2.10 (Appendix) shows that although the ICC operates on most continents (the ICC has been active in 26 countries), a large part of its activity is concentrated in Africa.

7. Violence is measured as any civilian death from one-sided violence reported in the UCDP-GED dataset. More details on the data in Section 3.2.

and more countries to reach 123 ratifiers in 2019<sup>8</sup>. In terms of recorded violence against civilians however, there appears to be little change around 2002 or later in the levels or trends : overall, in a given year, about 10% to 20% of countries experience killings committed by the government or rebels. If anything, the launch of the ICC in year 2002 seems to coincide with a stop in a 10-year trend of declining violence by governments. These global patterns are merely illustrative and do not provide convincing evidence for or against a deterrent causal effect of the ICC in ratifying countries. They simply show that the large geographical coverage of the ICC starting in 2002 did not coincide with massive reductions in the prevalence of violence against civilians globally.

The remainder of the paper aims to refine our analysis and offer credible conclusions on this issue. We proceed as follows : Section 2 presents the main theoretical arguments and empirical evidence on the question of a deterrent effect of the ICC. Section 3 describes the institutional setting and the data we use. Section 4 discusses the main empirical challenge of unobservable trends and how we address it. Section 5 presents the main results and robustness tests. Section 6 concludes.

## 2.2 The International Criminal Court and Deterrence

### 2.2.1 Overview of the ICC

International criminal justice developed incrementally since the end of World War II and the Military Tribunal of Nuremberg. In the 1990s, several *ad-hoc* international courts were established to investigate and punish crimes committed in former Yugoslavia, Rwanda or Cambodia. A consensus emerged at the time that a permanent international court was needed to prosecute in a more systematic way the most egregious crimes, often committed with impunity by top-rank officials in countries with weak and corrupt institutions. International negotiations led to the drafting of the

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8. Concerning the number of States Parties : the ICC counted up to 124 States Parties for a few months in 2016 before the withdrawal of Burundi and the Philippines. In 2017, i.e. the last year of observation of our data, there were 123 States Parties. In January 2020, there are 122 States Parties to the Rome Statute.

Rome Statute, the founding treaty of the Court, signed on July 17, 1998 in Rome by 120 countries. As with any treaty, mere signature is not enough and countries have to ratify the Rome Statute to recognize jurisdiction of the ICC in domestic law. Four year after the signature of the treaty, on July 1st 2002, the International Criminal Court was officially launched in The Hague (Netherlands) with the first 60 States Parties that had ratified the Rome Statute by then. Over the following months and years, more and more countries decided to ratify the treaty : they were already 85 by the end of year 2002. In January 2020, the ICC had jurisdiction over 122 ratifying countries on all continents (see Figure 2.3). However, several powerful countries keep refusing to ratify the Statute, notably the United States, China, Russia or India. Nevertheless, since its launch in 2002, the Court has grown considerably in terms of financial and human resources : the ICC now employs almost 1,000 workers (380 of them are under the authority of the Prosecutor), for an annual budget of about 150 million euros.

The Rome Statute officially mandates the International Criminal Court to punish and deter the perpetrators of four types of international crimes : genocide, crimes against humanity, war crimes, and the crime of aggression. The Statute explicitly states that killing civilians intentionally constitutes both a war crime and a crime against humanity. Such crimes are not subject to statute of limitation. The ICC has systematic jurisdiction for eligible crimes committed after July 1 2002 only in States Parties to the Rome Statute or by nationals of those states<sup>9</sup>. For countries that ratified the Rome Statute after July 2002, the ICC has jurisdiction only from the date of ratification (no retroactivity). In the event that a country withdraws from the Rome Statute, as was recently the case for Burundi and the Philippines, an "exit clause" imposes a one-year delay between the notification of exit and the end of the Court's jurisdiction. Plus, the ICC retains jurisdiction for the entire period during which the state was a member of the Rome Statute.

Unlike other international courts such as the Court of Justice of the European Union, the International Criminal Court has jurisdiction over individuals. Criminal

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9. The Court may have exceptional and limited jurisdiction over a specific crime situation in a State which is not a Party to the Statute if that State consents to the Court's jurisdiction (as with Ukraine in 2014) or if the UN refers the situation to the Court (as with Libya in 2011).

FIGURE 2.3: Rome Statute ratification around the world



responsibility aims to hold individuals accountable for their actions, be they government officials, military commanders, rebel leaders or terrorist groups. In practice, the ICC only prosecutes top-rank officials and not low-rank operatives.

The prosecutor leads the Court’s criminal policy either by initiating investigations herself or by investigating situations referred to the court by states parties and the UN Security Council<sup>10</sup>. Although the Court can independently decide to investigate a case, it can’t overstep national courts but only intervenes when a State is unable or unwilling to prosecute a situation of international crime (court of last resort or “safety net”). In terms of deterrence, this feature means that the expected sanction for the leader of an organization who considers the possibility of committing an international crime while the ICC has jurisdiction can be written as follows :

$$s = \begin{cases} s_n \equiv p_n * f_n & \text{if } s_n > \underline{s} \\ s_{icc} \equiv p_{icc} * f_{icc} & \text{otherwise} \end{cases} \quad (2.1)$$

where  $s_n$  is the national jurisdiction expected sanction for an individual who commits an international crime (the product of the probability of being punished  $p_n$  and the severity of punishment  $f_n$ ),  $s_{icc}$  is the expected sanction from the ICC for the same

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10. All prosecutors, as well as all ICC judges, are independent magistrates, elected by members states for 9 years without replacement.

individual, and  $\underline{s}$  can be considered as the standard of prosecution set by the ICC. If the national expected sanction is below this threshold (for example because the probability of arrest and conviction of the criminal by national courts  $p_n$  is close to zero), then the ICC may prosecute the crime and the expected sanction becomes  $s_{icc}$ . Of course, whether a particular case falls below or above the threshold for ICC enforcement is a matter of great diplomatic disputes and often opaque negotiations between the Court, allies of the targeted country and other nations. Kuziemko and Werker (2006) and Qian and Yanagizawa (2009) provide evidence of such strategic negotiations in international affairs in the form of biased human-rights reporting or foreign aid by the U.S. or the United Nations for example.

## 2.2.2 The Potential for Deterrence

The potential deterrent effect of the ICC is a matter of debate since the inception of the Court (Philips, 2016). Equation 2.1 helps to disentangle the potential channels of deterrence.

The most direct channel for potential deterrence is the traditional Beckerian argument called general deterrence (Becker, 1968; Polinsky and Shavell, 2000). Because the ICC is an international court that imposes sanctions when national courts are failing, its existence should impose the threat of greater expected punishment for potential criminals when the ICC is entitled to prosecute ( $s_n < \underline{s}$ ). Such cases occur in countries where law enforcement by police and courts is weak - because of insufficient funding or lack of judicial independence for example. In such a scenario, the ICC can yield substantial legal deterrence if the Court's expected sanction is sufficiently large compared to the national benchmark ( $s_{icc} \gg s_n$ ). Of course such deterrence relies on the assumption that these criminals can be deterred, thus that they trade off the costs and benefits of their actions. Mullins and Rothe (2010) argue that rationality and deterrability are very likely in international crimes since they often involve high levels of organization, coordination, anticipation, i.e. rational processes. Additionally, the Court's actions against a leader may also achieve reductions in violence domes-

tically through the incapacitation of the convicted criminal in prison<sup>11</sup> and abroad through short-lived residual deterrence of foreign leaders (Dilmé and Garrett, 2018)<sup>12</sup>.

In practice however, it remains that deterrence of international crimes is fragile for three main reasons, all related to the ingredients of the Beckerian tradeoff (often denoted  $p$ ,  $f$ ,  $B$  and  $\bar{u}$ ). First, the ICC lacks law enforcement forces to track, arrest and transfer alleged criminals to its headquarters in The Hague, and can only rely on cooperation of domestic governments. More generally, the resources of the ICC are limited (Wippman, 1999, 2006). Thus, the probability of arrest  $p_{icc}$  is essentially out of the Court's hands and often depends on national leaders' willingness to cooperate<sup>13</sup>. If the suspect belongs to the government itself or to one of its allies, state cooperation is very unlikely and the probability of sanction by the ICC is low. Consequently, of the 37 arrest warrants issued by the ICC since its launch in 2002, 13 defendants are still at large and 4 are detained abroad in January 2020<sup>14</sup>. Moreover, while the ICC focuses on the arrest and prosecution of top leaders of organizations, the deterrence of lower-rank officials and combatants may be easier and more effective in reducing overall violence (Lecorps, 2021).

Second, the sanction incurred from the ICC ( $f_{icc} \leq \text{life in prison}$ <sup>15</sup>) may often appear relatively lenient compared to the maximum penalty in domestic law ( $f_n$ ). As Ku and Nzelibe (2006) note, more than half of the 122 ratifier countries impose the death penalty in their domestic law, so most criminals under the threat of ICC prosecution actually face the most extreme sentence domestically. Conversely, the most

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11. Incapacitation can also occur without prison if ICC's actions against a defendant make it practically impossible for him to keep committing crimes, for example because it precipitates his fall from office.

12. In this paper, we do not consider the residual-deterrent effect of ICC's actions in a given country on violence in other countries, but focus on the more direct effect of ICC jurisdiction in a country on violence domestically. Empirically documenting the former would be very difficult since the judicial record of the ICC remains very limited (few events to study) and it is not clear which foreign leaders could be deterred by this channel (i.e. which weighting matrix should be used to connect violence between countries worldwide, should this matrix vary over time, etc.).

13. See Meernik (2015) for an analysis of potential strategies for the ICC to hasten arrest or surrender of alleged criminals.

14. The remaining individuals were either convicted (8 of them), acquitted or their case closed (7), while 6 are currently under ICC custody (as of January 2020). The details of each case are available at <https://www.icc-cpi.int/Pages/defendants-wip.aspx>

15. See Article 77 of Rome Statute

severe sentence issued by the ICC up to now is a 14-year prison sentence for a very serious case of enlistment of child soldiers in Democratic Republic of Congo (Thomas Lubanga case, the first conviction ever issued by the ICC).

Third, the stakes are often extremely large in international crimes - or in Beckerian terms,  $B \gg \bar{u}$ . If we think of a ruling leader trying to stop a rising civil revolution, the benefits of committing crimes to maintain its hold on power are most probably orders of magnitude larger than the outside option of losing power. In many cases like that of Ben Ali in Tunisia or Kadhafi in Libya, ruling leaders enjoy vast amounts of utility, while overthrown leaders end up in exile, imprisoned or killed. A similar story may often hold for rebels or terrorist organizations, which derive potentially very large utility from committing crimes compared to their outside option. However, recent evidence from India, the West Bank and Sub-Saharan Africa consistently shows that insurgency, political violence and civil conflict are very sensitive to changes in local actors' outside option in the form of income shortfalls, negative productivity shocks or social insurance (Berman et al., 2019; Amodio et al., 2020; Fetzer, 2020). Because the ICC focuses on top decision-makers whose stakes are so large, deterrence of international crimes by the Court remains unlikely, at least for ruling leaders (Cronin-Furman, 2013). It may even backfire towards more atrocities and lower chances of peace as it increases the value of holding power (Sutter, 2006; Vinjamuri, 2010; Ku and Nzelibe, 2006).

Overall, these three features -low probability of arrest, limited sentence and high stakes - are likely to shut down the legal deterrent effect of the ICC for ruling leaders and their allies. For rebels and other non-governmental organizations, the potential for legal deterrence by the ICC is somewhat larger since the probability of arrest is not in their hands (but partly in the government's hands). More fundamentally, the additional deterrence imposed by the ICC is likely to be both asymmetrical and highly context-dependent : a government decides whether to ratify, cooperate and withdraw from the treaty, while a non-governmental organization has no power over these decisions. Ruling leaders will use this power strategically to serve their best interest. In a context unfavorable to the government - for example, the opening of an investigation by the ICC for crimes allegedly committed by the ruling leader - one can expect poor cooperation

and even in some cases a withdrawal from the Rome Statute. If however the ICC seeks to investigate and eventually prosecute political opponents or terrorist groups, we may expect stronger cooperation from the government. Conversely, rebels can only expect to gain some control over the actions of the ICC if they are able to seize political power in the process (or at least negotiate an agreement with the government). Overall, the potential for deterrence from ICC's legal authority may well be larger for non-governmental organizations than government leaders.

Finally, the ICC may also generate deterrence through other, more indirect channels, as noted by Dancy (2018). First, the existence of the ICC may force regimes to increase their domestic enforcement of ICC-prosecutable cases in order to avoid the Court's intervention (Sang-Hyun, 2013; Meernik, 2015). Therefore, governments may be pressured to increase either  $p_n$ ,  $f_n$  or both, so that they get close enough to the ICC threshold ( $s_n \approx \underline{s}$ ). This "trickling-down" effect may well induce some additional deterrence over the medium to long run, for both governments and rebels. Governments may for example be forced to trial domestically and issue minimal sentences against allies or military commanders, in order to meet the ICC's standards and prevent more troublesome legal actions.

Second, the ICC may exert deterrence by imposing reputational costs on suspects. For a ruling leader or the chief of a rebel militia, the opening of an ICC investigation, an arrest warrant, or even a formal prosecution, may have a "name and shame" effect that can't be muted down easily. This reputational cost can occur in the form of lower political support domestically (Appel, 2018) or lower support from international organizations like the UN (be it diplomatic, financial or military support) or foreign countries<sup>16</sup>. This reputational threat of by the ICC may well act as a deterrent to violence in some contexts, even when any legal sanction from the ICC is unlikely.

Overall, the deterrent effects of the International Criminal Court on violence are theoretically ambiguous. There are serious reasons to believe that deterrence is minimal for governmental forces, and possibly larger for non-governmental groups. However, up

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16. Gilligan (2006) develops a game-theoretic model where the ICC makes the denial of political asylum by a foreign country credible, thus reducing the possibility of leaders fleeing prosecution and contributing to deterrence.



to now, there is virtually no credible empirical research on this important question. The few papers exploring the role of the ICC quantitatively either focus on case studies or use panel-data methods that are not very credible. Focusing on the case of Libya in 2011, Hillebrecht (2016) finds that the timing of ICC interventions tends to coincide with reductions in government-sponsored violence. Looking at intra-state conflicts, Greig and Meernik (2014) suggest that ICC actions can be detrimental to the peace process : investigations initiated by the ICC during a conflict lead to a reduction in the likelihood that parties will initiate mediation. However, the results of Dancy and Wiebelhaus-Brahm (2018) on the duration of ongoing intra-state conflicts find somewhat null effects of international justice. In a similar spirit, although their primary focus is on the role of natural resources, Esteban et al. (2015) show that legal institutions that are expected to limit mass killings have ambiguous effects of the probability of such events. Regarding the specific impact of the ICC, Jo and Simmons (2016, 2017) propose the main empirical test of the deterrence hypothesis in a panel of 101 countries observed from 1989 until 2011 (just before the first conviction issued by the ICC in 2012). Their results suggest that the jurisdiction of the ICC in a given country has large deterrent effects over governments but large crime-enhancing effects over rebels. However, their analysis relies on very unflexible random-effects specifications that do not convincingly address the probable endogeneity of the ratification process (more on this point below). Plus, the sign and magnitude of their estimates (approximately -50% in civilian killings by governments after ratification, and +70% by rebels) appear somewhat implausible and contradictory with what we expect from the institutional design of the Court.

## 2.3 Data and Empirical Strategy

### 2.3.1 Data

We assemble an annual panel dataset for the period from 1989 to 2019 using several sources. As a measure of deadly violence against civilians, we use UCDP's Georeferen-

ced Event Dataset<sup>17</sup> (Sundberg and Melander (2013) and Croicu and Sundberg (2017)) which provides information on virtually all events leading to the death of civilians killed intentionally by governments or non-governmental organizations over the period 1989-2019. Although this measure includes only one type of international crime (namely the killing of civilians), the UCDP-GED database is to our knowledge the most accurate and reliable data source on the topic<sup>18</sup>. In order to have the broadest possible view of the phenomenon, our sample includes all the countries that have ratified the Rome Statute over the period<sup>19</sup> as well as all the countries in which at least one civilian killing has been recorded. These criteria lead to a large sample of 176 countries (see Figure 2.9) : 153 countries are observed during the full 31-year period under study (1989-2019), 20 are observed since the period 1990-1993 (mostly in ex-Yugoslavia and ex-USSR) and the remaining 3 are much younger states<sup>20</sup>.

Concerning the jurisdiction of the International Criminal Court, we recover from the ICC's website the updated list of countries that are States Parties to the Rome Statute and therefore recognize the ICC in their domestic law<sup>21</sup>. We code the years of ratification of the Statute, as well as years of mere signature although this step is formal and not binding.

Regarding control variables, we consider country-year information from several datasets that are well-known in the literature : the World Income Database (WID) for GDP and population data, Polity IV for political variables like the rule of law, the CIRI Human Rights Dataset for information on judicial independence, and the Database of Political Institutions (DPI2020) for regime-specific information about the current polity<sup>22</sup>.

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17. 18.1 version.

18. More information about UCDP-GED dataset available at <https://www.pcr.uu.se/research/ucdp/methodology/>

19. 125 in total even though there are now 123 ratifier countries following the withdrawal of Burundi and the Philippines. We do not include Kiribati, which ratified the statute in November 2019.

20. The three only countries that are observed for less than 25 years are Timor-Leste (since 2002), Montenegro (2006) and South Sudan (2011).

21. List available at <https://asp.icc-cpi.int/>

22. Sources : World Inequality Database available at <https://wid.world/data/>, Polity IV at <http://www.systemicpeace.org>, CIRI at <http://www.humanrightsdata.com/> and DPI at <http://dx.doi.org/10.18235/0003049>.

### 2.3.2 Country-level risk

We decompose our analysis of the effect of the ICC on violence based on a country-specific risk score. Our risk score intends to capture the risk that, prior to the launch of the ICC, a country experiences civilian killings that would be poorly prosecuted by domestic legal institutions and would benefit from an international court. Our risk score aggregates three factors all measured in the pre-ICC period : the frequency of civilian killings in the country over the years<sup>23</sup>, the rule of law index (ROL) from the Polity IV dataset, and the Judicial Independence index (JI) from the CIRI dataset. To build a reliable risk score, we measure all three variables every year during the period 1989-2001<sup>24</sup>, compute their average level per country and then standardize them on a scale from 0 to 1 with 1 denoting the worst country(ies)<sup>25</sup>. We then compute the average of the three standardized variables to obtain the country-specific risk score before the launch of the ICC. Our risk score writes :

$$RiskScore_i = \frac{1}{3} (StandardizedViolence_i + StandardizedROL_i + StandardizedJI_i)$$

Higher scores mean more frequent civilian deaths, poorer rule of law and/or less independent judiciary. In our empirical analysis, we often split the sample of 176 countries at the median risk score to obtain two groups of countries denoted high-risk (N=88) and low-risk (N=88) countries. High-risk countries are countries where violence occurred and/or judicial institutions are weak with regards to ICC's standards, hence where the ICC has some potential to deter violence. Conversely, in low-risk countries, there is little potential for deterrence by the ICC (because there is little civilian violence to deter anyway, or because domestic institutions are strong enough to preclude ICC prosecution).

Table 2.1 reports summary statistics for our risk score and its three components for each region of the world. Unsurprisingly, the score is lowest in Europe and Oceania,

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23. This frequency is measured as the fraction of years before 2002 (ICC launch) during which at least one civilian got killed.

24. For the three sampled countries that were created after 2001 (Timor-Leste, Montenegro and South Sudan), we take values from their "parent" country (Indonesia, Serbia and Sudan). All three end up in the high-risk group of countries.

25. For the variable  $x$ , the standardized variable from 0 to 1 is computed as  $Std_x = \frac{\bar{x}_i - \bar{x}_{min}}{\bar{x}_{max} - \bar{x}_{min}}$ .

highest in Africa and Asia, and intermediate in the Americas and Middle-East, but there is non-negligible cross-country variance in all regions. The hierarchy between regions is similar for each component of the risk score. The three components are all strongly correlated but are not completely redundant (correlations from +0.38 to +0.78 in the cross-section sample). Overall, 73% of African countries and 80% of Asian countries are considered high-risk, compared to only 22% in Europe for example.

TABLE 2.1: Summary Statistics for Risk Score, by Region

	Africa	Americas	Asia	Europe	Middle East	Oceania	Total
Risk Score	0.521 (0.230)	0.307 (0.215)	0.526 (0.232)	0.201 (0.213)	0.443 (0.165)	0.149 (0.139)	0.377 (0.256)
- Std. Violence	0.349 (0.358)	0.156 (0.315)	0.445 (0.409)	0.0723 (0.178)	0.275 (0.355)	0 (0)	0.234 (0.340)
- Std. Rule of Law	0.641 (0.177)	0.462 (0.195)	0.560 (0.188)	0.311 (0.250)	0.496 (0.182)	0.289 (0.177)	0.484 (0.240)
- Std. Jud. Indep.	0.573 (0.289)	0.303 (0.276)	0.572 (0.369)	0.221 (0.318)	0.559 (0.269)	0.159 (0.347)	0.412 (0.346)
Number of countries	51	33	25	45	14	8	176
Share High-risk	0.725	0.364	0.800	0.222	0.571	0.125	0.500

Notes : mean and standard deviation of the risk score and its three components, by region of the world.

### 2.3.3 Endogeneity of the ratification process

Our main objective is to estimate the causal effect of ICC jurisdiction on violence against civilians :

$$Violence_{it} = \beta_0 + \beta_1 ICC_{it} + e_{it} \quad (2.2)$$

where the binary treatment variable,  $ICC$ , takes 1 for countries that are under the jurisdiction of the ICC during the whole year  $t$  (because they ratified the treaty previously), and 0 for all other observations.

Obtaining a causal effect from Equation 2.2 is challenging because ratification of the Rome Statute and violence against civilians are presumably part of an endogenous process. Governments and ruling leaders may be willing to ratify and accept ICC

jurisdiction only once the national context is stable and peaceful enough, or more generally when they expect no investigation by the ICC in the near future<sup>26</sup>. Conversely, periods of civil instability and political turmoil may deter governments to accept the jurisdiction of the International Criminal Court, except if ratification works in their best interest. In the same spirit, Chilton and Posner (2018) also face the potential endogeneity of ratification of treaties on human rights violations<sup>27</sup>.

To illustrate, imagine the ruling leader of a country who has to decide whether to ratify the treaty<sup>28</sup>. Self-interest may conflict with more general interest motivations or values (Abbott and Snidal, 2002). On the one hand, ratifying the Rome Statute is a way to contribute to the public good of international law enforcement and accountability of top-rank criminals such as terrorist group leaders, war criminals, etc. Ratification is also a way to signal to the international community (the United Nations, foreign countries, etc.) and to domestic forces (NGOs, opposition groups, media, etc.) that the ruling leader is committed to fighting impunity and ready to accept the ICC's jurisdiction (a loss of sovereignty). These signals may be instrumental for ruling leaders in order to negotiate support from the UN or powerful countries (foreign aid, military assistance, etc.) or to keep domestic opposition under control. In addition, the jurisdiction of the ICC may be useful for a government to deter current or future rebels from engaging in serious violence on their territory, especially if domestic institutions are weak and unable to deter on their own.

On the other hand, ratification comes at a cost. In case of violent outbursts in the future, ruling leaders may face prosecution by the ICC if domestic institutions are deemed too weak ( $s_n < \underline{s}$ ). This risk is probably even higher if they expect to lose power and enter into rebellion. Ratification is a commitment to accept ICC's jurisdiction : withdrawing from the treaty can be very costly both on the international

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26. This last reason may well explain why the U.S. consistently refused to ratify the Rome Statute (threats of investigations by the ICC on the wars in Iraq and Afghanistan).

27. Regarding the effect of international treaties on human rights violations, Chilton and Posner (2018) adopt a careful methodology to control for the endogeneity of ratification (by accounting for trends within countries over time and running placebo tests) and estimate causal ratification effects. They find very little support for a beneficial impact of such treaties on human rights violations. Chilton and Versteeg (2015) propose a similar empirical examination on the causal effects of constitutional torture prohibitions.

28. On the interests and limits of rational-choice theory in this context, see notably Keohane (2002); Posner (2002); Thompson (2002) in a 2002 special issue of the *Journal of Legal Studies*.

stage and domestically. Plus, the exit clause secures ICC jurisdiction during one year after the official notification of withdrawal, hence ruling leaders can still be prosecuted and sanctioned for international crimes during this period.

Because of these features, the decision to ratify the Rome Statute is a bet on future events, in particular future outbursts of rebellion, attacks and violence. Ruling leaders thus trade-off the present and future benefits of ratification to its potential costs, knowing that they can't easily step back. Therefore, the tradeoffs of ratification can be considered as the result of a latent political process influenced by domestic and international forces, such that :

$$ICC_{it} = \begin{cases} 1 & \text{if } Ratification_{it}^* = \alpha_i + f_i(t) + X'_{it}\alpha + u_{it} > 0 \\ 0 & \text{if } Ratification_{it}^* \leq 0 \end{cases} \quad (2.3)$$

where the latent variable  $Ratification^*$  captures the unobservable process through ratification of the Rome Statute by country  $i$  over time  $t$ . The propensity to ratify the treaty presumably depends on long-term, intrinsic characteristics of countries  $\alpha_i$  (political and civil institutions, legal traditions, history, etc.); on a set of time-varying observable factors,  $X_{it}$ , such as economic development; on unobservable trends over time  $f_i(t)$  that can be common to all countries but most probably also vary across countries depending on their own domestic context and pressures from the international community; and finally on other random events, circumstances, shocks that can't be modeled or measured  $u_{it}$ . The term  $f_i(t)$  is likely to include ruling leaders' perception of recent events and their expectations about critical future events, such as violent outbursts by rebel groups, street mobilization from citizens, election outcomes and regime switches, etc. Hence, past, present and future violence, perpetrated either by rebel groups or by governmental forces, are expected to influence the timing of ratification by a ruling leader.

This reasoning yields the threat of endogeneity bias due to reverse causality on the coefficient  $\beta_1$  in Equation 2.2, as ICC jurisdiction and violence affect each other. Another source of endogeneity is omitted-variable bias stemming from common shocks  $e_{it}$  and  $u_{it}$  that contemporaneously affect both the ratification process and civil violence.

Both the ratification process and the occurrence of violence against civilians may for example be jointly determined by changes in underlying political institutions, human development, civil-society empowerment, or even external pressures by foreign countries or international institutions. In the difference-in-difference framework, these features lead to the threat of non-parallel trends : had they not ratified the Rome Statute, ratifier countries would probably experience different changes in violence over time than non-ratifiers because the timing of ratification is not random but determined by past, present and future violence (anticipation, mean reversal, Ashenfelter's dip).

Endogeneity bias on  $\beta_1$  can be positive or negative depending on which actors are considered. Governments presumably decide whether and when to ratify the treaty depending on their expectations of future violent events : if they expect that they will have to use lethal force against mobilized citizens and political opponents, they are likely to postpone ratification. In Cote d'Ivoire for example, deadly violence opposed the supporters of the two presidential candidates in 2010-2011, incumbent President Gbagbo and newly-elected President Ouattara. With the issuance by the ICC in 2011 of an arrest warrant against Gbagbo, the local situation gradually settled, violence declined, and Ouattara eventually decided to ratify the Rome Statute in 2013. In such contexts, we expect the years following ratification to correspond to periods of little use of force by the government, not because of a potential deterrent effect of the ICC but because leaders correctly anticipated the situation. This will yield a downward bias in Equation 2.2 on the effect of ICC jurisdiction on the occurrence of civilian killings committed by the government. Conversely, if ruling leaders expect in the near future a wave of turmoil and attacks by rebels or terrorist groups, ratification of the Rome Statute may be used by the government as an attempt to deter them or to send a positive signal to the international community and domestic forces (that the government is committed to the rule of law, contrary to their attackers). In such situations, the timing of ratification should coincide with a period of increasing violence by rebels, yielding an upward bias on the effect of ICC jurisdiction on the occurrence of civilian killings by rebels.

It is tempting to try to capture these features by including country-specific trends in

addition to fixed effects. However, the formation of expectations by governments about future violent episodes may not only reflect a simple linear or quadratic extrapolation from recent years but use both past events and hints about the future in a complex way. In order to credibly solve this endogeneity problem, we need to go beyond strong assumptions and use methods to account flexibly for the “objective” underlying risk of violence by rebels and by the government at any point in time. This is the goal of our approach using Interactive Fixed Effects.

### 2.3.4 Benchmark : Two-Way Fixed Effects

The typical approach to address endogeneity in the context of a panel with an endogenous binary treatment is the Two-Way Fixed Effects model (TWFE). It consists in augmenting Equation 2.2 with country and year fixed effects<sup>29</sup> and therefore controls endogeneity stemming from time-invariant differences in average violence across countries (country FE) and from global changes in violence over time affecting all countries similarly (year FE). Such regressions can also include as regressors additional variables that may explain both the decision to ratify the Rome Statute, and the emergence of violence against civilians. This TWFE model writes as follows :

$$Y_{it} = \alpha_i + \theta_t + \beta_1 \text{Ratified}_{it} + \gamma X_{it} + e_{it} \quad (2.4)$$

Although this approach reduces the potential for endogeneity bias, it does not credibly it. The reason is that TWFE models impose strong assumptions that are unlikely to hold in the context of this study. In particular, the TWFE model assumes a single vector of time effects that apply equally to all countries, meaning that there is only one global trend (possibly non-linear) in violence against civilians that is as relevant in Europe as in Africa or Middle East. In such regressions, the differences in violence observed across countries in a given year are only allowed to stem from different base levels (the country FE), from jurisdiction of the ICC, or from differences in observable covariates (e.g. GDP per capita). These assumptions do not appear credible because

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29. The two-way fixed-effects model, a generalization of Difference-in-Difference to many groups and many periods, is used by Jo and Simmons (2016) on the same question of the deterrent effect of the ICC. They find very large beneficial effects of the ICC on government killings, and very detrimental effects on rebels.



there are a variety of potential confounding variables that are hard to observe but likely explain both the prevalence of violence in a given year and the ratification process of the Rome Statute. These unobservable country-specific trends, which are of unknown form, generate bias on  $\beta_1$  in Two-Way Fixed Effects regressions. Including country-specific linear trends, or even quadratic trends, may well not credibly capture these unobservables as explained above.

Because they are popular in many panel-data contexts but unlikely to deliver causal effects here, we estimate TWFE models only to serve as benchmarks for comparison with our preferred specifications. In placebo tests below, we show that TWFE models yield highly disturbing “effects” on dependent variables that have no clear link with the International Criminal Court, namely population and GDP per capita.

### 2.3.5 Empirical strategy : Interactive Fixed Effects

Our empirical strategy consists in adjusting Equation 2.4 to allow for both country fixed effects and country-specific trends over time. Instead of imposing parametric assumptions on these trends, we consider a much more flexible approach proposed by Bai (2009) called Interactive Fixed Effects (IFE). This approach controls for trends in unobservable heterogeneity between countries over time by adding on the right-hand side a function  $f_i(t) = \lambda_i' f_t$  :

$$Violence_{it} = \alpha_i + \lambda_i' f_t + \beta_1 ICC_{it} + \gamma' X_{it} + e_{it} \quad (2.5)$$

$\lambda_i$  is a  $[k,1]$  vector of country-specific *factor loadings*  $[\lambda_{i1}, \lambda_{i2}, \dots, \lambda_{ik}]'$  and  $f_t$  is a  $[k,1]$  vector of *factors*  $[f_{1t}, f_{2t}, \dots, f_{kt}]$ . By including the interactive fixed effects  $\lambda_i' f_t$  as parameters to be estimated, they can be correlated with the binary treatment variable *ICC* as well as with violence against civilians (while ignoring them in the error term would yield endogeneity bias). The IFE specification nests as special cases the widely used Two-Way Fixed Effects model with  $\alpha_i + \theta_t$  (when we set  $k = 1, \lambda_{i1} = 1$  and  $f_{t1} = \theta_t$ ) or the country-specific linear trend model for example (when we add a second factor with  $\lambda_{i2} = \alpha_i$  and  $f_{2t} = t$ ).

Equation 2.5 can easily include control variables in vector  $X$  to make the exogeneity of *ICC* more credible and/or to increase efficiency. We consider the inclusion of two controls, both lagged one year : GDP per capita (in log) and total population (in log). However, we don't further include covariates that may explain violence (like rule of law, quality of the polity, free press, etc.) but may also very credibly act as mechanisms (or mediators) of the causal effect of interest. Indeed, the effect of ICC jurisdiction on civilian killings may be driven not only by the direct legal threat of ICC sanctions but by many other channels, such as a strengthening of the rule of law, greater media coverage of violent events, more popular attention on the topic, etc. If included as explanatory variables, such covariates would presumably capture part of the causal effect of interest, so we stick in Equation 2.5 with short specifications (only GDP per capita and population as controls).

Intuitively, IFE allow the temporal dynamics in violence to be heterogeneous across countries : for example, European countries may not react to some episode of global turmoil because of their institutional stability whereas more fragile African countries may be highly affected. In addition, the IFE method can capture not only one but several cross-national trends in violence (factors) whose relevance (factor loading) varies between countries depending on their own specificities and dynamics. This feature is appropriate to capture different plausible trends in civil violence over time, such as the Balkanization in the 1990s in Eastern Europe, the rise of Islamist terrorism in the 2000s, or the Arab Spring revolutions in the early 2010s. Each of these trends affected violence differently across countries and continents (a pattern that aggregate time fixed effects can not capture) and evolve in complex, non-linear ways over time (a pattern that parametric country-specific time trends would fail to capture).

Accounting for unit-specific trends in panel data using IFE has been found to be important to adress endogeneity in a number of settings, both using micro and macro data. Kim and Oka (2014) estimate IFE models to revisit the conflicting evidence on the effects of unilateral divorce laws on divorce rates in U.S. states. Kejriwal et al. (2020) apply IFE to estimate the returns to schooling while accounting for the changing valuation of different skills on the U.S. job market over time. Totty (2017) estimate

IFE models to study the employment effects of minimum wages across U.S. states. Also using aggregate data, Gobillon and Wolff (2016) estimate the effect of an new fishing technique on fish quality in French seaports. Here we follow a similar objective to estimate the causal effect of ICC jurisdiction on country-level violence against civilians. The seminal paper of Bai (2009) also attracted attention in econometric theory, either to compare IFE to alternative strategies like the Synthetic Control Method (Gobillon and Magnac, 2016; Xu, 2017) or to discuss estimators that can better fit non-linear settings (Chen, 2016; Xue et al., 2018; Boneva and Linton, 2017).

Here, we stick with the linear specification of Bai (2009) and consider Linear Probability Models of the occurrence of any civilian killing in country  $i$  and year  $t$  (extensive margin) and log-linear models of the natural log of civilian death counts per country per year (intensive margin). We follow the estimator proposed by Bai (2009) where a Principal Components approach is used to estimate the factors and factor loadings. Using this estimator, the researcher has to set the number of factors  $k$ . Bai and Ng (2002) propose several statistical criteria to evaluate the optimal number of factors, penalizing more complex models (more factors). We compute and report three information criteria noted  $IC_{p1}$ ,  $IC_{p2}$  and  $IC_{p3}$ . They all share the same structure  $IC = \ln(V(e_{it})) + k \times g(N, T)$  where  $V(e_{it})$  is the variance of the error term (computed from the residuals) and  $g()$  is a penalty function which depends on sample size ( $T$  and  $N$ )<sup>30</sup>. We seek to minimize these information criteria and usually obtain optimal number of factors  $k$  ranging from 1 to 3. We report results up to  $k = 5$  for robustness.

A key advantage of IFE is that it relaxes the strong assumption of parallel trends that is imposed in Two-Way-Fixed-Effects regressions and difference-in-difference settings more generally. More precisely, the parallel trends assumption is now much weaker as it applies after conditioning on a possibly complex and non-linear country-specific trend (the interactive fixed effect), instead of just conditional on a year fixed effect or a linear time trend for example. Several recent papers take a different approach and consider the robustness of findings to various deviations from parallel trends (Rambachan and Roth, 2020; Manski and Pepper, 2018). However, this approach implies that the

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30. For  $IC_{p1}$ , the penalty function is  $g() = \frac{N+T}{NT} * \ln(\frac{NT}{N+T})$ . For  $IC_{p2}$ ,  $g() = \frac{N+T}{NT} * \ln(T)$ . For  $IC_{p3}$ ,  $g() = \frac{\ln(T)}{T}$ .

researcher decides which deviations are credible or not, something that is plausible in certain settings but much more difficult in our case where deep institutional knowledge of each country would probably be needed. An alternative proposed by Freyaldenhoven et al. (2019) handles pre-trends through 2SLS using a variable that correlates with the confounders of violence but not with treatment itself, but it seems very difficult to imagine such a variable in our case.

## 2.4 Results

We split the sample at the median risk to distinguish high-risk countries (N=88) where the ICC has some potential to deter violence, and low-risk countries (N=88) where there is little potential for deterrence by the ICC (because there is little civilian violence to deter anyway, or because domestic institutions are strong enough to preclude ICC prosecution).

### 2.4.1 Graphical evidence

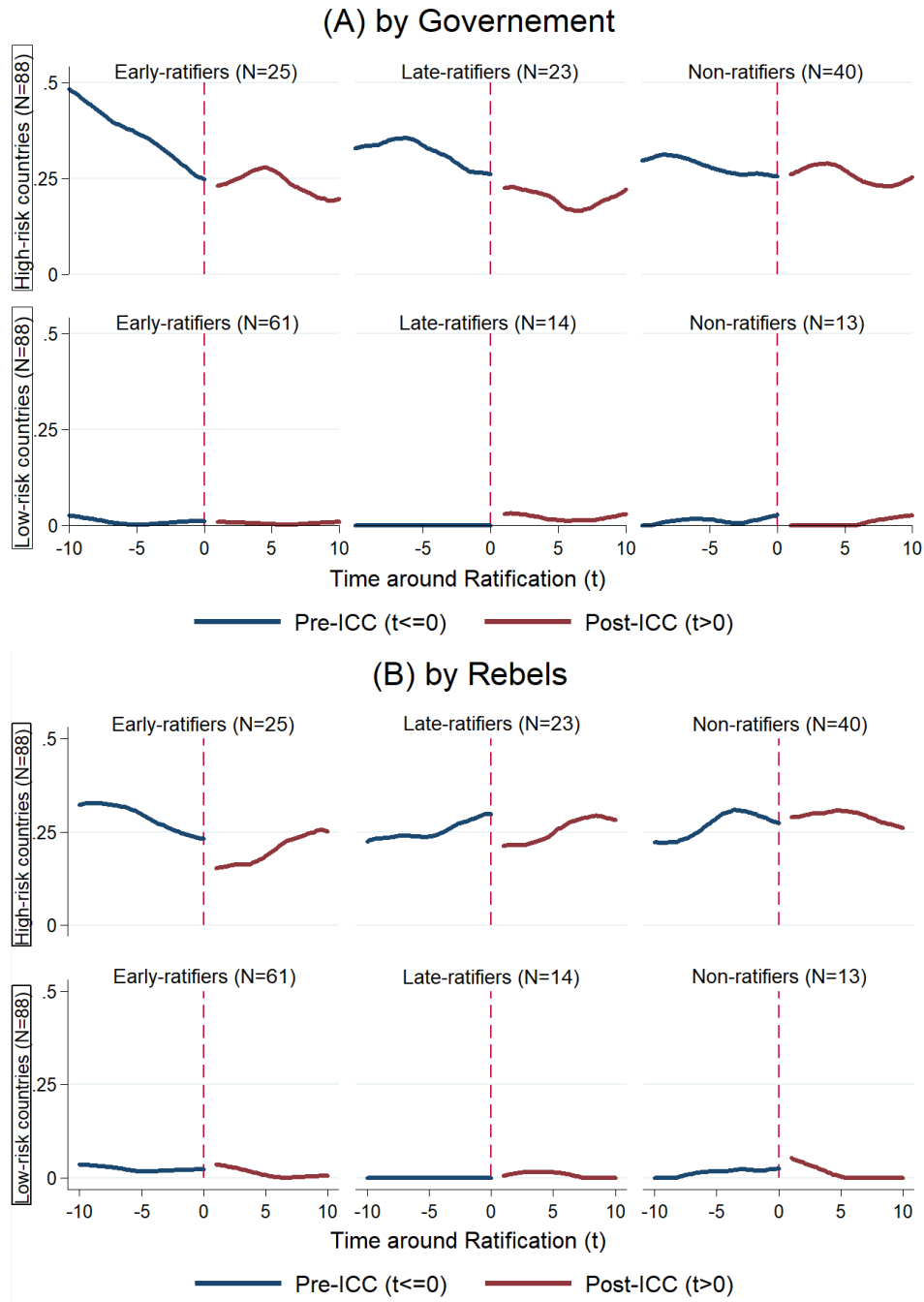
As preliminary evidence, Figure 2.4 shows the patterns of violence against civilians among the 176 sampled countries in the 10 years prior and after ratification of the Rome Statute. We show the (smoothed) probability of any killings of civilians, by government (panel A) and rebels (panel B), separated by type of countries (high-risk and low-risk; early-ratifiers, late-ratifiers and non-ratifiers). For countries that never ratified the Rome Statute and are not under ICC jurisdiction, we attribute them a fake date of ratification between 2002 and 2019 by randomly drawing dates in a distribution that matches the true distribution<sup>31</sup>. In our interpretations, we focus on high-risk countries since low-risk countries have essentially flat patterns at or around zero.

First, Figure 2.4 shows clear historical trends of diminishing violence by governments and rebels in the years leading to ratification (i.e. pre-trends) in high-risk countries. The probability of killings committed by governments consistently declined in

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31. The true distribution of ratification years among the 123 ratifiers is highly skewed : 86 countries ratified in 2002 (71.5% of the sample) and the 37 late-ratifiers ratified somewhat uniformly over the following years (2003-2019). Our fake distribution for the random draws for non-ratifiers matches these two characteristics.

FIGURE 2.4: Trends of Violence Before and After Ratification



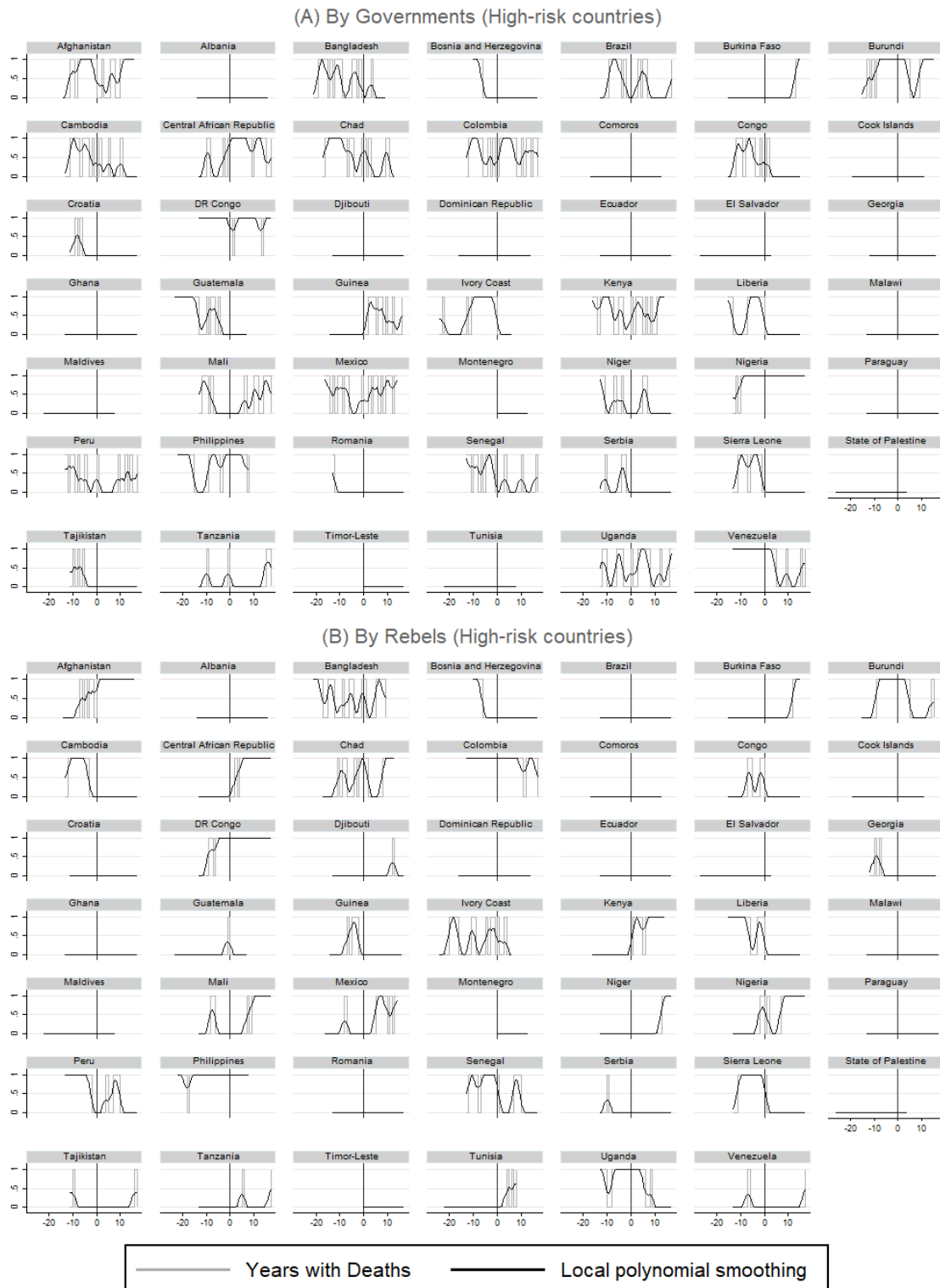
Note : probability of any killings of civilians by governments (A) and rebels (B) on a given year before or after ratification of the Rome Statue triggering ICC jurisdiction. Non-ratifiers receive a fake year of ratification (based on random draws mimicking the true distribution). The curves are obtained by kernel smoothing (Epanechnikov) with  $\pm 18$ -months bandwidth. “High-risk” countries are countries with a risk score from the 1989-2001 period above the median (score based on rule of Law, judicial independence and prevalence of civilian killings) ; “Low-risk” are below-median countries.

the 5-10 years prior to ratification, both among early-ratifiers and late-ratifiers. The pattern is expectedly much flatter among non-ratifiers, which serve as a placebo group here. Regarding killings by rebels, there are also consistent pre-trends that are either decreasing (among early-ratifiers) or increasing (among late-ratifiers). The fact that such pre-trends exist and that they differ between groups of countries is a serious source of concern for identification based on traditional methods (notably Two-Way Fixed Effects models). Remember that our approach with Interactive Fixed Effects will account for such heterogeneous pre-trends by controlling for country-specific trends based on factor analysis.

Second, Figure 2.4 provides preliminary evidence on the likely causal effects of ICC jurisdiction on violence. Regarding government-sponsored killings, there is little sign of breaks in the years following ratification of the Rome Statute among high-risk countries. However, there are consistent reductions in the probability of violence by rebels, both among early-ratifiers and late-ratifiers, in the years following ratification. The magnitude of the break is around -10 percentage point in the first few years. Our preferred specifications using IFE will match these preliminary “estimates”.

A finer analysis is provided in Figure 2.5. The graphs show the trends in the probability of violence by governments (A) and rebels (B) in each of the 48 high-risk countries that ratified the Rome Statute at some point. They confirm that violence follows country-specific trends over the ratification process : in some countries ratification closely follows the end of violence (as in Cote d’Ivoire, Guatemala, Tadjikistan), in others ratification occurs along a preexisting trend of deescalation (as in Cambodia or Congo).

FIGURE 2.5: Violence against Civilians over the Ratification Process (Extensive Margin)



Note : Ratification year ( $t=0$ ) corresponds to the year of ratification of the Rome Statute by each ratifier. Local polynomial using kernel smoothing (Epanechnikov) with  $\pm 1$  year bandwidth.

“High-risk” countries are countries with a risk score from the 1989-2001 period above the median (score based on rule of Law, judicial independence and prevalence of civilian killings).

## 2.4.2 Benchmark Models with Two-Way Fixed Effects

The benchmark models with two-way fixed effects (TWFE) appear in Table 2.2, both for violence committed by governments (Columns 1 and 2) and violence committed by rebels (Columns 3 and 4). The dependent variable is always a dummy for any civilian killing, thus capturing the extensive margin of violence. Results at the intensive margin (on the log-number of civilians killed) are substantively similar (see Table 2.6 in Appendix).

Regarding government-sponsored killings, the estimated coefficient pooling all countries is -0.021 (or a 2.1 percentage point reduction in the probability of such events) but insignificantly different from zero. However, when we allow for different treatment effects between high-risk and low-risk countries, the estimate for ICC jurisdiction in high-risk countries is large, significant and negative (-9.1 pp) while the estimate in low-risk countries is insignificant. As explained in Section 4, we view this large negative estimate as naive and overly optimistic due to the endogenous timing of ratification by governments.

Regarding violence by rebels, all the coefficients for ICC jurisdiction are negative, ranging from -0.04 to -0.05, but insignificant. These estimates obtained by TWFE may well be overly pessimistic here, due to the endogenous timing of ratification by ruling leaders willing to prevent or stop a surge of civilian killings by rebels.

**Placebo tests on other outcomes :** Before turning to our preferred models with interactive fixed effects, we run placebo tests using the log of population and GDP per capita as dependent variables. We do not expect any plausible detectable effect of ICC jurisdiction on country-level population or GDP. However, Column 1 of Table 2.3 shows that a naive TWFE regressions yields a large significant coefficient for ICC on population in low-risk countries, suggesting a huge “effect” of around -14% on population due to the ICC. Similarly implausible results emerge for GDP per capita (-10%) in Column 3. Conversely, our IFE estimators in Columns 2 and 4 yield coefficients that are much smaller, close to zero and insignificant, as we would expect. These



TABLE 2.2: Two-Way Fixed-Effects on Any Violence by Governments and Rebels

	(1)	(2)	(3)	(4)
	By Government		By Rebels	
ICC <sub>t-1</sub>	-0.021 (0.030)		-0.043 (0.036)	
ICC <sub>t-1</sub> : High-risk		-0.091 <sup>+</sup> (0.047)		-0.050 (0.062)
ICC <sub>t-1</sub> : Low-risk		0.031 (0.025)		-0.038 (0.028)
ln(GDP per capita) <sub>t-1</sub>	-0.084* (0.042)	-0.071 <sup>+</sup> (0.041)	-0.133** (0.048)	-0.132** (0.048)
ln(Population) <sub>t-1</sub>	-0.016 (0.055)	0.043 (0.050)	0.032 (0.096)	0.038 (0.086)
Country F.E.	X	X	X	X
Year F.E.	X	X	X	X
Nb. of obs.	4971	4971	4971	4971
Nb. of countries	169	169	169	169
Mean Dep. Var.	0.15	0.15	0.14	0.14

Standard errors are clustered at the country level.

<sup>+</sup> p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

TABLE 2.3: TWFE and IFE models on Placebo Outcomes

	(1)	(2)	(3)	(4)
	Log(Population)		Log(GDP p. capita)	
ICC <sub>t-1</sub> : High-risk	0.012 (0.032)	0.002 (0.001)	0.008 (0.045)	-0.006 (0.014)
ICC <sub>t-1</sub> : Low-risk	-0.136*** (0.027)	0.000 (0.001)	-0.107* (0.042)	-0.013 (0.009)
ln(GDP per capita) <sub>t-1</sub>	-0.183*** (0.039)	-0.003 (0.002)		
ln(Population) <sub>t-1</sub>			-0.567*** (0.105)	-0.667** (0.203)
Model	TWFE	IFE	TWFE	IFE
Country F.E.	X	X	X	X
Year F.E.	X	-	X	-
Nb. of obs.	4971	4971	4970	4970
Nb. of countries	169	169	169	169
Mean Dep. Var.	15.7	15.7	9.11	9.11

Standard errors are clustered at the country level. IFE with 8 factors.

<sup>+</sup> p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

placebo tests therefore confirm that Two-Way Fixed-Effects estimates should be taken with great caution, as they are likely contaminated by endogeneity bias, and that Interactive Fixed Effects estimates should be preferred.

### 2.4.3 Models with interactive fixed effects

We move to the models with interactive fixed effects. The estimation of Equation 2.5 proceeds in two steps that are repeated until convergence : first, the model is estimated without any factor structure through a basic fixed-effects estimator, only imposing country-FE. Second, the residuals obtained in Step 1 are used in a Principal Component Analysis (PCA) to obtain factors and factor loadings  $\lambda'_i f_t$ . These country-specific dynamics are then subtracted from  $Y_{it}$  and we re-estimate the fixed-effects model from Step 1 with the transformed dependent variable. We again subject the residuals to PCA. The process is iterated until the estimated coefficients are stable enough (tolerance of  $1 \times 10^{-9}$ ). This estimator for the IFE model yields an estimate for  $\beta_1$ , the deterrent effect of ICC jurisdiction, that controls for the intrinsic specificities of violence in each country in terms of level ( $\alpha_i$ ) and trend over time ( $\lambda'_i f_t$ ). .

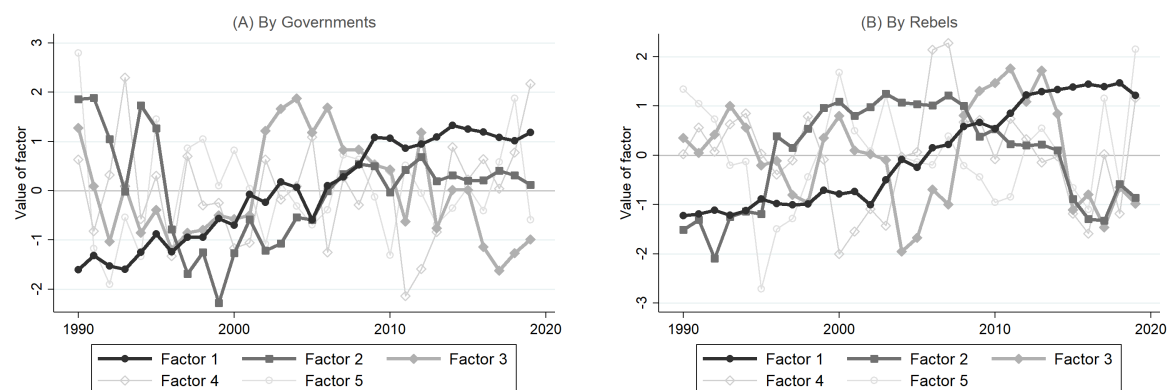
#### Country-specific trends

Figure 2.6 shows the global trends captured by the factors  $f_1$  to  $f_5$  (all independent by design). The first three factors seem to capture quite consistent temporal dynamics in violence, whether committed by governments or by rebels, while factors 4 and 5 appear more erratic. Regarding violence by governments for example, Factor 1 captures a gradual increase in violence over the three decades of data whereas Factor 2 captures a spike in the early 1990s followed by a low point in the late 1990s.

The factor loadings for the two main trends,  $\lambda_1$  and  $\lambda_2$ , are represented in Figure 2.7 (panel A for government, panel B for rebels). Regarding killings by governments, factor loadings are quite concentrated around 0 for countries in Europe and Oceania, and in contrast they are highly dispersed in African, Asian and Latin American countries (with loadings ranging approximately  $\pm 0.3$  for both factors). These estimates are consistent with a pattern of homogenous stability across all Europe and Oceania (almost no trend,

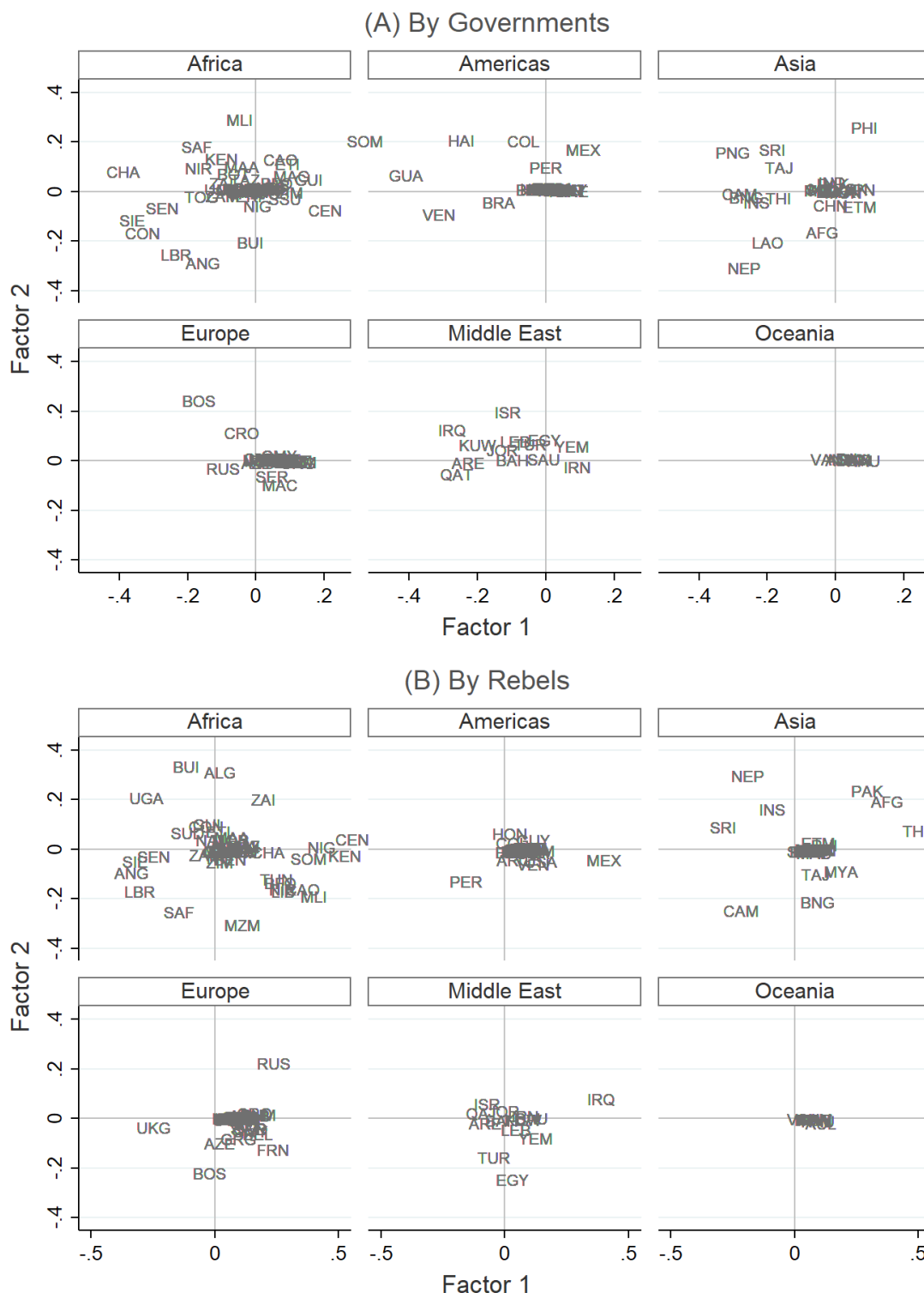
i.e. country fixed effects capture most of the variance) compared to large heterogeneity in the trends of violence in other continents. In all continents, we can see a mass of countries where the factors are irrelevant (hence, almost no trend) but also countries where strong trends emerge.

FIGURE 2.6: Estimated Trends in Civilian Killings Committed by Governments and Rebels



These results validate the use of the IFE method as they show great heterogeneity across countries in the dynamics of civilian killings. To visualize it, Figure 2.11 (Appendix) shows the predicted trends in civilian killings obtained from a model with three factors ( $\widehat{\lambda}_1 \widehat{f}_1 + \widehat{\lambda}_2 \widehat{f}_2 + \widehat{\lambda}_3 \widehat{f}_3$ ). We report trends for a selection of six countries, one per continent : France, Tchad, Colombia, Afghanistan, Yemen and Australia. The results show dynamics that are quite flat around zero in France and Australia for governmental violence, but with increasing violence by rebels (here, terrorist groups) after 2010. More dramatic dynamics are captured for the other selected countries. Imposing time fixed effects common to all countries would neglect this heterogeneity. Similarly, imposing linear or quadratic time trends would also miss the complex dynamics at work.

FIGURE 2.7: Factor Loadings for Factors 1 and 2



Note : N=169. Coordinates correspond to countries' factor loadings  $\delta_1$  and  $\delta_2$  for the first two factors, obtained after IFE regressions with control variables (lagged GDP per capita, lagged population) and ICC jurisdiction.

### Estimates of the effect of ICC

Tables 2.4 and 2.5 report estimates of the effect of ICC jurisdiction on violence using Interactive Fixed Effects. The different columns correspond to alternative specifications allowing more and more factors (from one up to five). The criteria proposed by Bai and Ng (2002) are reported at the bottom of the tables : they suggest that the optimal number of factors ranges from 1 to 3, depending on which criteria is used ( $IC_{p1}$ ,  $IC_{p2}$  or  $IC_{p3}$ ). The point estimates for the ICC variable measure the effect of ICC jurisdiction on violence against civilians by governments (panel A) or by rebels (panel B), measured at the extensive margin in percentage points. All regressions distinguish the effect of ratification for high-risk countries and low-risk countries. We can also run separate regressions for each group of countries, yielding very similar results. A more visual presentation of the results is provided in Figure 2.8, showing both the estimates from naive Two-Way Fixed Effects regression (Eq. 2.4) and more robust Interactive Fixed Effects regressions (Eq. 2.5).

TABLE 2.4: Interactive Fixed-Effects Estimates on (Any) Violence by Governments

	(1)	(2)	(3)	(4)	(5)
ICC <sub>t-1</sub> : High-risk	-0.037 (0.055)	-0.059 (0.058)	-0.014 (0.047)	-0.034 (0.049)	-0.037 (0.050)
ICC <sub>t-1</sub> : Low-risk	0.002 (0.011)	-0.001 (0.012)	-0.024 (0.016)	-0.028 <sup>+</sup> (0.016)	-0.028 <sup>+</sup> (0.016)
ln(Population) <sub>t-1</sub>	0.262** (0.099)	0.443** (0.138)	0.548** (0.186)	0.576** (0.190)	0.530** (0.178)
ln(GDP per capita) <sub>t-1</sub>	-0.024 (0.045)	0.023 (0.050)	0.064 (0.064)	0.077 (0.068)	0.051 (0.064)
Number of factors	1	2	3	4	5
Country F.E.	X	X	X	X	X
Nb. of obs.	4971	4971	4971	4971	4971
Nb. of countries	169	169	169	169	169
Share(Y=1)	0.15	0.15	0.15	0.15	0.15
Iterations	357	1024	661	2011	1938
IC <sub>p1</sub>	-2.785	-2.781	-2.768	-2.744	-2.716
IC <sub>p2</sub>	-2.778	-2.767	-2.746	-2.714	-2.68
IC <sub>p3</sub>	-2.801	-2.812	-2.814	-2.805	-2.794

Standard errors are clustered at the country level. <sup>+</sup> p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

In terms of violence committed by governments, when we allow each country to fol-

TABLE 2.5: Interactive Fixed-Effects Estimates on (Any) Violence by Rebels

	(1)	(2)	(3)	(4)	(5)
ICC <sub>t-1</sub> : High-risk	-0.129** (0.045)	-0.115* (0.046)	-0.085* (0.041)	-0.109* (0.045)	-0.102* (0.043)
ICC <sub>t-1</sub> : Low-risk	-0.003 (0.015)	0.019 (0.015)	0.014 (0.014)	0.019 (0.015)	0.018 (0.015)
ln(Population) <sub>t-1</sub>	0.263* (0.128)	0.505** (0.152)	0.346* (0.138)	0.231+ (0.125)	0.295* (0.137)
ln(GDP per capita) <sub>t-1</sub>	-0.111+ (0.056)	-0.045 (0.049)	-0.051 (0.049)	-0.028 (0.050)	-0.012 (0.052)
Number of factors	1	2	3	4	5
Country F.E.	X	X	X	X	X
Nb. of obs.	4971	4971	4971	4971	4971
Nb. of countries	169	169	169	169	169
Share(Y=1)	0.14	0.14	0.14	0.14	0.14
Iterations	253	550	734	752	1474
IC <sub>p1</sub>	-3.02	-3.09	-3.113	-3.104	-3.096
IC <sub>p2</sub>	-3.012	-3.076	-3.091	-3.075	-3.06
IC <sub>p3</sub>	-3.035	-3.121	-3.159	-3.166	-3.174

Standard errors are clustered at the country level. + p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

low its own trend of violence that is proportional to one global pattern (IFE model with 1 factor), the estimated effects for both high-risk and low-risk countries are virtually zero. Allowing for more complex country-specific trends (now a mix of several global patterns/factors) does not substantially alter the results for both groups of countries. The large difference in estimates between Two-Way Fixed Effects models and more flexible Interactive Fixed Effects models strongly suggests that country-specific dynamics of violence (and not just base levels) play a key role in the decision and timing of ratification. Overall, the interpretation in terms of deterrence by the ICC is clear : on average, ratification of the Rome Statute has no detectable effect on the occurrence of violence committed by governments (extensive margin), either for high-risk of low-risk countries. The estimates are rather small in magnitude and far from significant. Similar null findings are obtained at the intensive margin (number of civilians killed).

Regarding violence committed by rebels however, the estimates suggest a different story. Whatever the specification of the IFE model, the estimates are negative and significant at conventional levels ( $p < 0.05$  or lower) for high-risk countries, and close

to zero and insignificant for low-risk countries. Focusing on the high-risk group, the estimated effect ranges from -8 to -10 percentage points depending on the number of factors. This is in stark contrast with the small insignificant estimates based on TWFE models, and suggests that specific trends in rebel violence (and not just base levels) partly drive the decision and timing of ratification. A failure to account for endogeneity underestimates by a factor of two or more the deterrent effect of the ICC on rebels in high-risk countries. After controlling flexibly for those country-specific trends, there is a large significant deterrent effect of about 10 percentage points on the probability of violence committed by rebels in the following years (extensive margin). Similar results in magnitude and significance are obtained when we run separate regressions on each group of countries (high-risk and low-risk) : in particular, the estimates for ICC range from -15 pp (1 factor) to -9 pp (3 or 4 factors) and are always significant at 5% or 10%.

Overall, our results can be summarized as follows : in high-risk countries, ratification of the Rome Statute has a sizable negative effect on violence by rebels but no detectable effect on violence by governments ; conversely, in low-risk countries, ratification has no detectable effect on violence either by governments or rebels. These results are in stark contrast with those obtained by Jo and Simmons (2016) using simpler methods imposing much more restrictive assumptions (they find large beneficial effects on governmental violence and large detrimental effects on violence by rebels). We argue that accounting for country-specific trends over time in a flexible way (interactive fixed-effects) provides much more reliable and robust estimates of the causal impact of ratification, due to the serious endogeneity of such institutional changes.

Based on the design of the International Criminal Court, we view our results as highly consistent with both deterrence theory and political economy. The ICC depends crucially on the cooperation of States to arrest suspects. Top government officials, and in particular heads of States, may thus not face any credible deterrence from the ICC as long as they hold power and can interfere with the Courts' actions. The recent cases of Burundi and the Philippines provide good illustrations : after the opening of a preliminary investigation by the ICC, the two governments not only refused to

cooperate with the Court but also initiated the procedure for the withdrawal of the Rome Statute. These two refusals to cooperate show that a government can, at least in the short term, reduce the expected sanction for its senior officials to virtually zero. Hence, ruling leaders have leeway to use the ICC in their best interest.

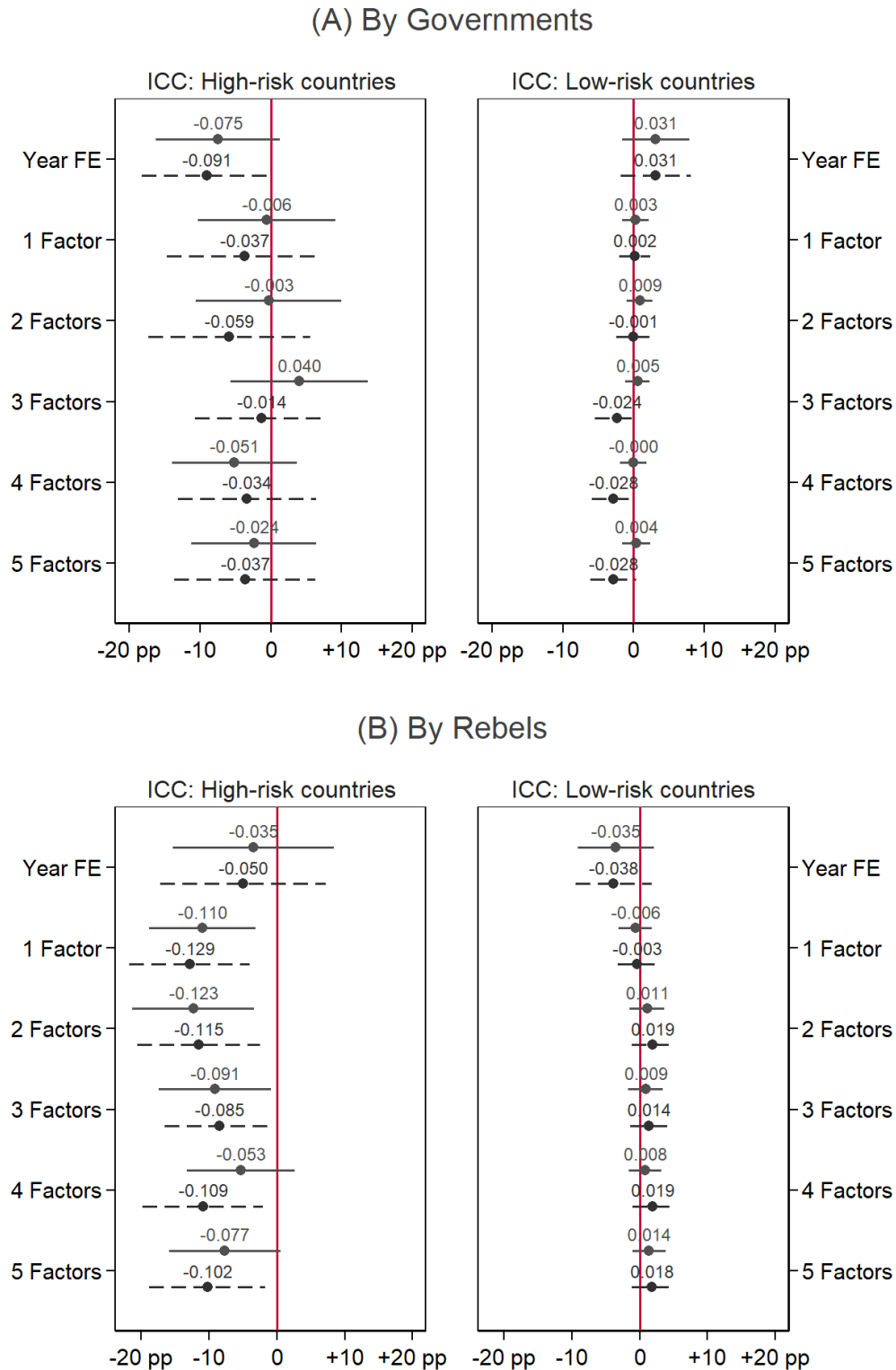
On the other hand, non-governmental forces and in particular rebel groups do not have the same leeway to escape liability before the ICC. In cases where rebels commit international crimes against civilians, domestic governments may well accept to fully cooperate with the Court to make prosecution and sanctions effective. The State of Palestine, for example, recognized the ICC's jurisdiction on 1 January 2015 and the Court opened a preliminary investigation on 16 January 2015 for alleged crimes in "the Occupied Palestinian Territory". The underlying motivations may mix the general interest of justice with self-interest (rule out rival political groups). This is particularly likely in countries where judicial institutions are weak and need international support (i.e. high-risk countries), whereas rich, stable countries do not need the ICC to make prosecution credible. In the past years, the governments of Uganda, the Central African Republic and Ukraine<sup>32</sup> have themselves referred situations to the ICC for alleged crimes by rebel organizations on their territory, leading to arrests and prosecutions (e.g. two anti-balaka leaders in Central African Republic).

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32. See <https://www.icc-cpi.int/uganda> and <https://www.icc-cpi.int/carII>



FIGURE 2.8: Effects of ICC with Interactive Fixed Effects (Extensive Margin)



Note : estimates refer to the percentage point effect of ratification on a binary variable for any civilian death committed by governments (A) or rebels (B). Point estimates are obtained from models with Interactive Fixed Effects with 1 to 4 factors. 95% confidence intervals appear in solid lines (regressions without controls) and dashed lines (with controls). “High-risk” countries (respectively “Low-risk”) are countries where deadly violence against civilians (by governments (A) or rebels (B)) occurred at least once (never) in the 1989-1999 period (pre-ICC).

## 2.5 Conclusion

With the end of impunity, deterrence has gradually become a major objective of international criminal law. In this paper we provide new empirical insights regarding the International Criminal Court's ability to deter international crimes since its launch in 2002. Compared to existing empirical work on this topic, our methodology rely on much more flexible and robust estimates. We show that the use of interactive fixed effects captures and controls great heterogeneity in the country-specific dynamics of lethal violence against civilians over time. While TWFE model estimates would lead to the conclusion of a broad and significant deterrent effect of the ICC on both governmental and non-governmental organizations in high-risk countries, IFE model estimates lead to more mixed results. Regardless of the country's level of risk (high or low), the ICC has no detectable deterrent effect on governmental organizations. With regard to non-governmental organizations, the ICC has a deterrent effect in high-risk countries and no detectable effect in low-risk countries. We believe that these results are highly consistent with ICC's institutional design based on the cooperation of States Parties and we argue that the ICC cannot deter in the same way governmental leaders who have the levers to undermine its action and non-governmental leaders who do not.

These results are quite encouraging for this institution which is the result is the result of decades of difficult compromises and had to meet a much broader set of objectives than deterrence. Furthermore, it should be recalled that the ICC is a court of last resort : an effect is expected where national courts are failing. Therefore with a 9 to 15 percentage point reduction in the probability of lethal violence against civilians committed by non-governmental organizations in high-risk countries, part of this goal is being achieved. However, our results also suggest ICC's weakness towards governmental leaders. Institutional changes to strengthen the ICC's authority over States Parties could likely enhance the credibility of the threat. Such institutional changes are not easy to achieve in practice : the adoption of an amendment to the Rome Statute requires a two-thirds majority of States Parties and its entry into force requires that seven-eighths of States Parties have deposited their instrument of ratification of the

amendment<sup>33</sup>. Nevertheless, the ICC is very much involved in creating a context for ending impunity and disseminating a standard of international criminal law. In the long term this context is promising and likely to have a considerable impact on the level of international crimes. Finally, our analysis focuses on lethal violence against civilians. Further empirical insights on this topic will be possible with the development of available data that will allow the analysis to be extended to other crimes under the ICC's jurisdiction.

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33. See Article 121 and 122 of the Rome Statute

## Appendix

TABLE 2.6: Two-Way Fixed-Effects on Violence by Governments and Rebels at the Intensive Margin

	(1)	(2)	(3)	(4)
	By Government		By Rebels	
$ICC_{t-1}$	-0.094 (0.107)		-0.237 (0.180)	
$ICC_{t-1}$ : High-risk		-0.414* (0.171)		-0.367 (0.307)
$ICC_{t-1}$ : Low-risk		0.142 (0.087)		-0.141 (0.134)
$\ln(\text{GDP per capita})_{t-1}$	-0.299+ (0.172)	-0.243 (0.170)	-0.630* (0.250)	-0.607* (0.253)
$\ln(\text{Population})_{t-1}$	-0.195 (0.221)	0.074 (0.197)	0.171 (0.473)	0.281 (0.422)
Country F.E.	X	X	X	X
Year F.E.	X	X	X	X
Nb. of obs.	4971	4971	4971	4971
Nb. of countries	169	169	169	169
Mean Dep. Var.	0.43	0.43	0.55	0.55

The dependent variable is the log-number of civilians killed.

Standard errors are clustered at the country level.

+  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

FIGURE 2.9: Countries in the sample



TABLE 2.7: Interactive Fixed-Effects Estimates on (Any) Violence by Governments

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ICC	0.000 (0.020)	0.014 (0.023)	0.003 (0.020)	0.009 (0.022)	0.002 (0.021)	-0.008 (0.025)	-0.014 (0.019)	-0.018 (0.023)
Log(population)		0.073 (0.067)		0.099 (0.071)		0.215* (0.090)		0.131 (0.094)
Log(GDP per capita)		-0.088* (0.040)		-0.098** (0.036)		-0.045 (0.042)		-0.080+ (0.044)
Number of factors	1	1	2	2	3	3	4	4
Country F.E.	X	X	X	X	X	X	X	X
Nb. of obs.	4982	4558	4982	4558	4982	4558	4982	4558
Share with death	1	1	1	1	1	1	1	1

Standard errors are clustered at the country level. + p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

TABLE 2.8: Interactive Fixed-Effects Estimates on (Any) Violence by Rebels

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ICC	-0.027+ (0.016)	-0.027 (0.020)	-0.023 (0.018)	-0.017 (0.020)	-0.017 (0.017)	-0.009 (0.018)	-0.014 (0.016)	-0.011 (0.017)
Log(population)		0.214+ (0.128)		0.411** (0.141)		0.307* (0.130)		0.228+ (0.126)
Log(GDP per capita)		-0.169* (0.072)		-0.096+ (0.057)		-0.110+ (0.059)		-0.063 (0.060)
Number of factors	1	1	2	2	3	3	4	4
Country F.E.	X	X	X	X	X	X	X	X
Nb. of obs.	4982	4558	4982	4558	4982	4558	4982	4558
Share with death	1	1	1	1	1	1	1	1

Standard errors are clustered at the country level. + p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

FIGURE 2.10: ICC ongoing action across the world

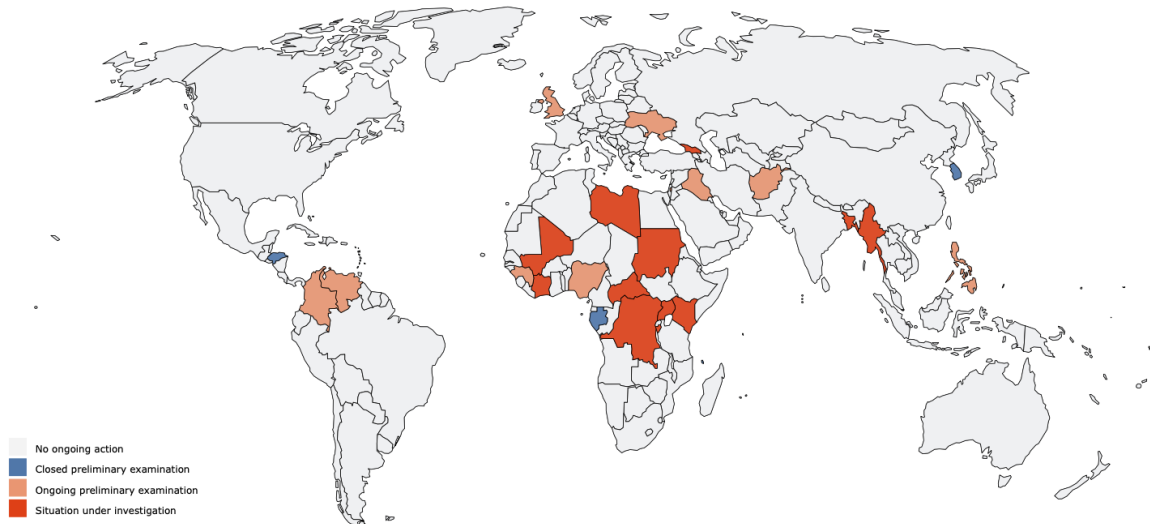
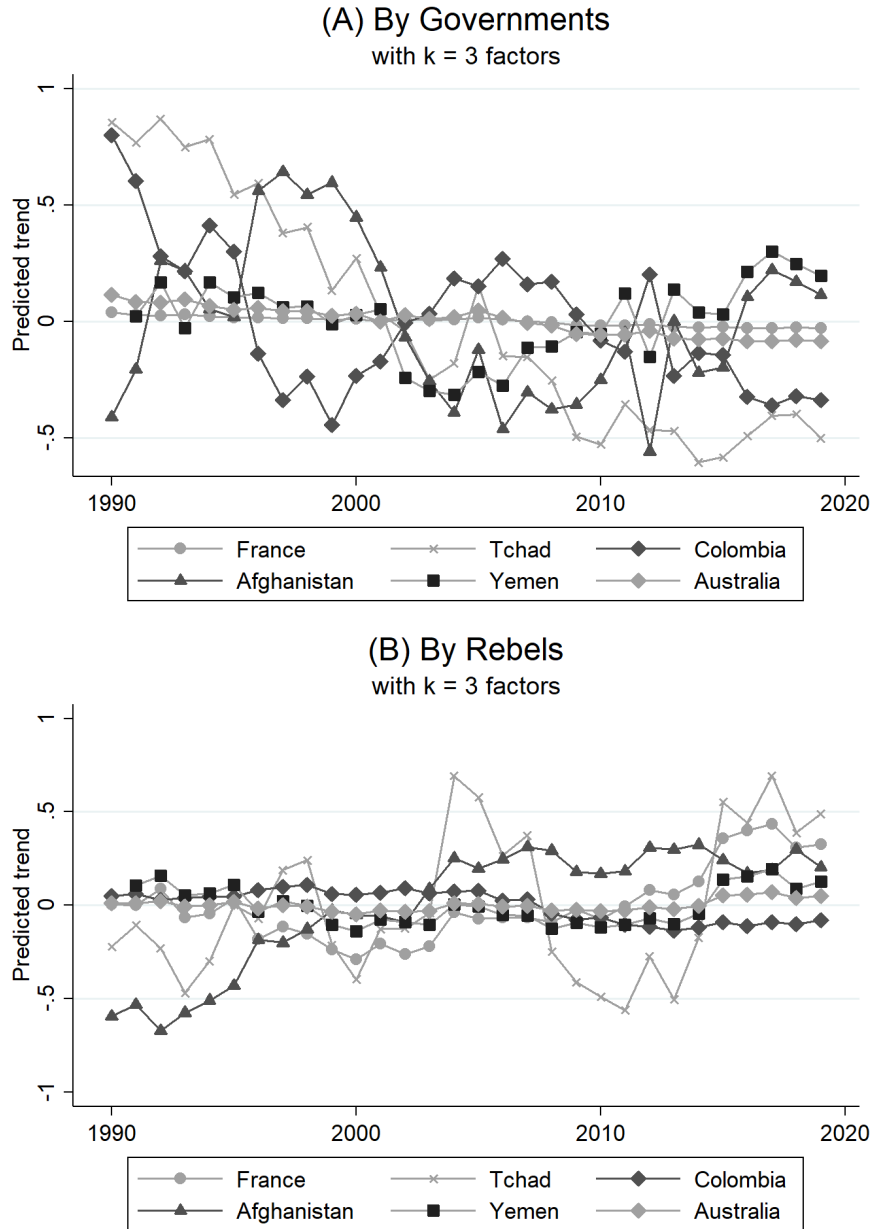


FIGURE 2.11: Predicted Trends for Six Selected Countries



Note : Each trend is computed from the first three factors and their associated factor loadings  $\hat{\lambda}_1 \hat{f}_1 + \hat{\lambda}_2 \hat{f}_2 + \hat{\lambda}_3 \hat{f}_3$ , obtained from IFE regressions with control variables (lagged GDP per capita, lagged population) and ICC jurisdiction.

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## Chapitre 3

# When the Government Turns a Blind Eye : Monitoring and Reporting of International Crimes by NGOs

### Abstract

We consider a government that has common interests with international criminals and is biased downward in its consideration of the social harm of international crime. Without an NGO monitoring and reporting international crimes, such a government enforces a smaller probability of detection than an unbiased government. We then consider the presence of an NGO, its strategic interaction with the biased government, and determine the conditions under which this presence is socially beneficial. The NGO's intervention affects both the incentives of the criminals and the government. As long as the cost to the government does not reach a threshold, the government takes advantage of the NGO to reduce its optimal probability of detection of international criminals. In this context, a radical NGO upwardly biased in its perception of social harm, is counterproductive in changing government policy and has no effect on deterrence.

### 3.1 Introduction

It has been documented that many governments around the world have relationships or connections with armed groups within their borders (Mitchell et al., 2014). The *Pro-Government Militias Database* (PGMD) identifies 332 pro-government militias in over 60 countries around the world between 1981 and 2007 (Carey et al., 2013). Like the *Bakassi boys* in Nigeria, who reportedly killed about 3,000 (Reno (2002), Harnischfeger (2003)) civilians in Anambra State in 2000 and 2001, these groups can assist the government in maintaining order in some areas of the country. In other contexts, these groups help the government fight rebel groups, such as in Colombia with the *United Self-Defense Forces of Colombia* (AUC), which committed thousands of civilian killings, acts of torture, and forced displacement of civilians between 1985 and 2003 with the stated objective of fighting the FARC rebellion (Duque, 2019). Members of these groups who share common interests with governments often go unpunished or face particularly lenient justice for their international crimes (Torres et al., 2009).

On the other hand, the second half of the 20th century was marked by a sharp increase in the number and influence of human rights non-governmental organizations (NGOs). The human rights NGOs registered were 96 in 1978, 170 in 1988 and 499 in 1998 (Tsutsui and Wotipka, 2004). The list of these organizations is available online in the *Yearbook of International Organizations*<sup>1</sup>. In this area, *Amnesty International* and *Human Rights Watch* are probably the two best known and most influential NGOs. *Human Rights Watch* monitors and reports on the commission of international crimes around the world. On its website its activity is described in three pillars as follows<sup>2</sup> :

1. *Investigate : our researchers work in the field in 100 some countries, uncovering facts that create an undeniable record of human rights abuses.*
2. *Expose : we tell the stories of what we found, sharing them with millions of social media and online followers each day. News media often report on our investigations, furthering our reach.*
3. *Change : we meet with governments, the United Nations, rebel groups, corpora-*

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1. Available at : <https://uia.org/yearbook>

2. Available at : <https://www.hrw.org/about/about-us>



*tions, and others to see that policy is changed, laws are enforced, and justice is served.*

In this paper we study the effects of such NGOs on the enforcement of international criminal law in the situation described above. Can an NGO that monitors and reports international crimes improve the enforcement of international criminal law carried out by a biased government ?

Three literatures are related to this research question. First, it is related to the literature dealing with activism (Baron and Diermeier, 2007), strategic interactions between activists and public regulation (Egorov and Harstad, 2017), and the conditions under which NGO intervention is socially beneficial (Daubanes and Rochet, 2019). Second, it is related to the literature on regulator bias (Bubb and Warren, 2014) and the strategic interaction between biased regulators operating in the same sector (Barros and Hoernig, 2018). Third, this paper is related to the law and economics literature that has considered different types of law enforcement organization (Becker and Stigler (1974), Polinsky (1980)) and different motivations for the government (Garoupa and Klerman, 2002).

In this paper we consider a game between a government and an NGO. Because of common interests with international criminals, the government is biased in its perception of the social harm caused by international crime. The only difference between a biased government and an unbiased (or benevolent) government is the bias that is given exogenously. We first show that this biased government chooses a systematically smaller optimal probability of detection than an unbiased government. We then introduce the presence of a human right NGO that reacts to the international criminal policy conducted by the biased government. The NGO has a social agenda guided by the social harm caused by international crime and a private agenda represented by the marginal gain in funding it makes from its monitoring and reporting activity. Given this agenda, the NGO chooses its optimal level of reporting based on the government's strategy. The NGO's reporting has an effect on both the incentives of individual criminals and the government. By shedding light on crimes and their perpetrators, the reporting produces an additional cost for individuals who consider the possibility of

engaging in international crimes. It also taints the government, which may lose political support and economic or commercial partners. Taking into account these costs, the biased government anticipates and incorporates the NGO's reaction when choosing the optimal probability of detection. In this context, we show that the presence of the NGO increases the probability of detection set by the biased government only if the cost of reporting to the government exceeds a threshold. If this cost does not exceed this threshold, the government takes advantage of the cost inflicted on individuals by the NGO to reduce its probability of detection. Similarly, the presence of the NGO increases the level of deterrence and thus eventually reduces the number of international criminals in society, only if the cost to the government exceeds a threshold. Finally, we consider the configuration where the NGO is radical, *i.e.* it is biased upwards in its consideration of the social harm caused by international crime. Our results suggest that this bias is counterproductive because it further reduces the probability of detection set by the government and has no effect on the overall deterrence of international crime. The rest of the paper is organized as follows : section 2 develops the model considering different assumptions about the government and the NGO, section 3 concludes.

## 3.2 Model

### 3.2.1 Unbiased versus biased government

This section focuses on the difference in enforcement policy regarding international crime between an unbiased government and a downward biased government regarding consideration of social harm.

#### **Benchmark : unbiased government**

We first replicate the optimal enforcement of international criminal law by an unbiased government as a benchmark of our analysis. In this framework, risk neutral individuals derive a benefit  $b$  from crime. The population is normalized to one and  $b \in [0, 1]$  is uniformly distributed across the population. Individuals who commit a crime face an expected sanction  $pf$ . The sanction  $f$  is assumed to be monetary and

a costless transfer from individuals to government. Let  $p \in (0, 1)$  be the probability of being detected and sanctioned when one commits an international crime. An individual commits a crime if  $b \geq pf$ . The objective function of an unbiased government that wishes to maximize social welfare is given by :

$$S_1 = \int_{pf}^1 (b - h) db - cp \quad (3.1)$$

With  $h > 0$  the social harm of crime and  $c > 0$  is the marginal cost of enforcement. It is assumed that the sanction is bounded to the maximum individual wealth  $F$  thus  $f \leq F$ . The government has to choose the levels of  $p$  and  $f$  that achieve the socially optimal level of deterrence of international crime. Since the sanction is a costless transfer, the optimal sanction is maximum  $f^* = F$ <sup>3</sup>. The first-order condition with respect to  $p$  is given by :

$$\frac{\partial S_1}{\partial p} = 0 \iff -pF^2 + Fh - c = 0 \quad (3.2)$$

From which we deduce the optimal probability of detection<sup>4</sup> :

$$p_1^* F = h - \frac{c}{F} \quad (3.3)$$

The optimal probability of detection increases with  $h$  the level of harm caused by the crime, decreases with  $c$  the marginal cost of the enforcement policy and we can define  $h_{1p0} = \frac{c}{F}$  the threshold at which  $p_1^* = 0$ ,  $h_{1p1} = \frac{c}{F} + F$  the threshold at which  $p_1^* = 1$ .

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3. For convenience, the proof that  $f^* = F$  provided by Garoupa (2000) is replicated in Appendix A.

4. The second order condition gives  $S_{pp} = -F^2 < 0$

### Government biased downward

The government is now considered to have a common and private interest with international criminals. For example, international crime may be of interest to the government if it allows it to maintain control over territories or preserve economic or political interests. To represent this common interest it is assumed that the government is biased downward in its consideration of the social harm  $h$  caused by international crime. The surplus function of such a government is defined by :

$$S_2 = \int_{pf}^1 (b - h\beta_g) db - cp \quad (3.4)$$

Where  $0 < \beta_g < 1$  is the exogenous government's bias regarding the harm caused by international crimes. The more biased the government is, the closer  $\beta_g$  is to zero. By the proof in appendix A, the optimal sanction is maximum  $f^* = F$  and the first order condition with respect to  $p$  is given by :

$$\frac{\partial S_2}{\partial p} = 0 \iff -pF^2 + Fh\beta_g - c = 0 \quad (3.5)$$

From which we deduce the optimal probability of detection of a biased government :

$$p_2^*F = h\beta_g - \frac{c}{F} \quad (3.6)$$

The optimal probability of detection is an increasing function of  $h$  but the closer  $\beta_g$  is to zero, the lower the slope. From 3.6 we can define  $h_{2p0} = c/\beta_gF$  the threshold at which  $p_2^* = 0$ ,  $h_{2p1} = F/\beta_g + c/\beta_gF$  the threshold at which  $p_2^* = 1$ . Figure 3.1 draws  $p_1^*$  and  $p_2^*$  for different values of  $h$ . When the harm is low ( $h \leq c/F$ ), both governments set  $p_1^* = p_2^* = 0$ . When  $c/F < h \leq c/\beta_gF$ , the unbiased government sets  $p_1^* > 0$  while the biased government does not criminalize these acts by setting  $p_2^* = 0$ . When  $c/\beta_gF < h < F + c/F$ , both governments set a probability greater than zero, but the

probability set by the biased government is always lower than the probability set by the unbiased government. When  $F + c/F \leq h < F/\beta_g + c/\beta_g F$  the benevolent government sets  $p_1^* = 1$  while the benevolent government sets  $p_2^* < 1$ . From  $h \geq F/\beta_g + c/\beta_g F$ , when the harm is very high, both governments set  $p_1^* = p_2^* = 1$ .

**Proposition 1.** *Assume  $\beta_g < 1$ . The optimal probability of detection  $p_2^*$  set by a downward-biased government is always smaller than or equal to the optimal probability  $p_1^*$  set by an unbiased government.*

**Proof.** Recall  $p_1^*F = h - \frac{c}{F}$  and  $p_2^*F = \beta_g h - \frac{c}{F}$ .

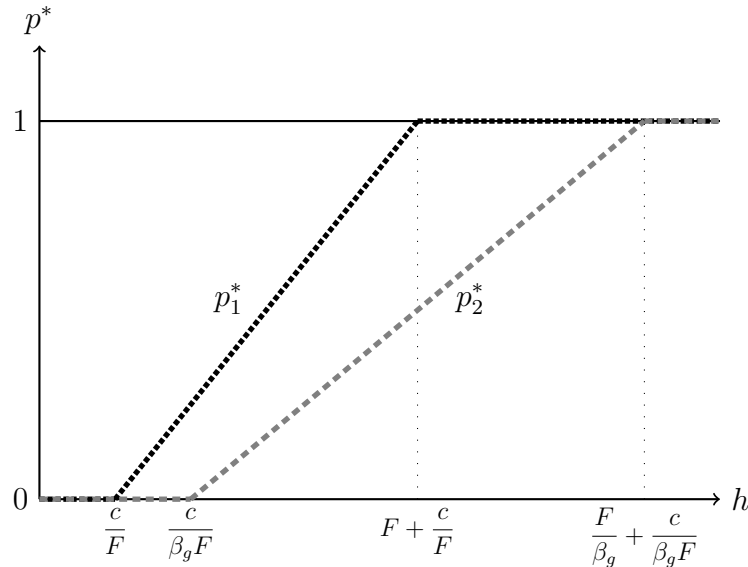
Therefore  $p_1^*F > p_2^*F$  if :

$$h - \frac{c}{F} > \beta_g h - \frac{c}{F}$$

$$1 > \beta_g$$

□

FIGURE 3.1: Optimal probability of detection as a function of the level of harm



### 3.2.2 Downward biased government with unbiased NGO

This section considers the strategic interaction between the biased government of section 3.2.1 and a human rights NGO with an unbiased perception of social harm.

The government is the leader, it decides its enforcement policy regarding international crime and the NGO is the follower, it reacts to this policy. We solve the game backwards by considering first the behavior of the NGO.

### Unbiased NGO

The purpose of the human rights NGO is to invest resources and mobilize people to monitor and report human rights violations. By "reporting" it is meant that the NGO disseminates to the world information about the perpetrators and the crimes committed. This reporting can take different magnitudes and is an additional sanction for individuals who consider the possibility of engaging in international crime because in the eyes of their fellow citizens and the international community they will be criminals. Let  $q > 0$  be the magnitude of the reporting. It is assumed that the NGO has its own channels of dissemination such as social networks, international and local media, and contacts with the international community that make reporting certain. Therefore, in the presence of the NGO, individuals participate in international crime if  $b \geq pf + q$ . Assuming that 1) the NGO derives a private benefit from reporting and 2) the NGO wishes to minimize the social harm of international crime, its objective function is :

$$U_1 = \int_{pf+q}^1 (\theta q - h) db - xq \quad (3.7)$$

The reporting increases the visibility and credibility of the NGO and  $\theta > 0$  is the marginal benefit of reporting in term of funding received by the organization per individual. Therefore, the NGO has a private agenda in addition to its social agenda. The marginal cost of reporting is  $x > 0$ . The organization determines  $q$  that maximizes its utility and the first-order condition is :

$$\frac{\partial U_1}{\partial q} = 0 \iff \theta - \theta pf - 2\theta q + h - x = 0 \quad (3.8)$$

And from 3.8 we get :

$$q_1^{BR} = \frac{1}{2} \left( 1 - pf + \frac{1}{\theta} (h - x) \right) \quad (3.9)$$

$q_1^{BR}$  is the NGO best reply to the government's enforcement policy regarding international crime. The organization's reporting is decreasing from the repressive policy of the government  $pf$ , increasing in  $h$  and decreasing in  $x$ . The effects of  $h$  and  $x$  on  $q_1^{BR}$  are dampened by  $\theta$ . On the one hand,  $\theta$  makes reporting profitable for the NGO compared to the marginal cost  $x$  and has a positive effect on  $q_1^{BR}$ . On the other hand,  $\theta$  indirectly weakens the social objective  $h$  of the NGO and has a negative effect on  $q_1^{BR}$ .

### Biased government monitored by unbiased NGO

The biased government is now in the presence of the unbiased NGO monitoring and reporting international crimes. Having individuals reported for international crimes by the NGO taints the government. This can lead to a loss of domestic and foreign political support, trade partners, and foreign financial aid. Let  $\alpha > 0$  be the marginal cost of reporting to the government. The government anticipates  $q_1^{BR}$  and faces  $\alpha$  the marginal cost of reporting so its objective function is :

$$S_3 = \int_{pf+q_1^{BR}}^1 (b - \beta_g h) db - cp - \alpha q_1^{BR} \quad (3.10)$$

With  $pf + q_1^{BR} = \frac{1}{2} \left( 1 + pf + \frac{h}{\theta} - \frac{x}{\theta} \right)$ , the objectif function of the government 3.10 is rewritten as follows :

$$S_3 = \left[ \frac{1}{2} - \beta_g h \right] - \left[ \frac{(1 + pf + \frac{h}{\theta} - \frac{x}{\theta})^2}{4} - \left( 1 + pf + \frac{h}{\theta} - \frac{x}{\theta} \right) \frac{\beta_g h}{2} \right] - cp - \frac{\alpha}{2} \left( 1 - pf + \frac{h}{\theta} - \frac{x}{\theta} \right) \quad (3.11)$$

By the proof in appendix A, the optimal sanction is maximum  $f^* = F$  and the first

order condition with respect to  $p$  is given by :

$$\frac{\partial S_3}{\partial p} = 0 \iff \frac{-pF^2}{2} - \frac{F}{2} - \frac{Fh}{2\theta} + \frac{Fx}{2\theta} + \frac{F\beta_g h}{2} - c + \frac{\alpha F}{2} = 0 \quad (3.12)$$

From which we get :

$$p_3^* F = h\beta_g + \frac{x}{\theta} + \alpha - \frac{h}{\theta} - \frac{2c}{F} - 1 \quad (3.13)$$

From equation 3.13 we observe that the effect of the NGO on the optimal probability of detection set by the government is ambiguous. First, the NGO's reporting generates a deterrent effect on individuals and allows the government, given its bias on social harm, to reduce its optimal probability of detection. This effect is reflected in  $\frac{-h}{\theta} - \frac{2c}{F} - 1$ . Second, the NGO's reporting comes at a cost to the government and provides an incentive to increase its optimal probability of detection. This effect is visible through  $\frac{x}{\theta} + \alpha$ .

**Proposition 2.** Define  $\underline{\alpha}_3 = \frac{1}{\theta}(h-x) + 1 + \frac{c}{F}$ . The optimal probability of detection set by a biased government is higher in the presence of an NGO when  $\alpha > \underline{\alpha}_3$  and smaller when  $\alpha < \underline{\alpha}_3$ .

**Proof.** Recall  $p_2^* F = \beta_g h - \frac{c}{F}$  and  $p_3^* F = h\beta_g + \frac{x}{\theta} + \alpha - \frac{h}{\theta} - \frac{2c}{F} - 1$ .

Therefore,  $p_3^* F > p_2^* F$  if :

$$\begin{aligned} h\beta_g + \frac{x}{\theta} + \alpha - \frac{h}{\theta} - \frac{2c}{F} - 1 &> \beta_g h - \frac{c}{F} \\ \alpha &> \frac{1}{\theta}(h-x) + 1 + \frac{c}{F} \equiv \underline{\alpha}_3 \end{aligned}$$

□

The result of proposition 2 indicates that when  $\alpha < \underline{\alpha}_3$ , the free deterrence provided by the NGO outweighs the costs of reporting and the government decides to reduce its optimal detection probability. Conversely, when  $\alpha > \underline{\alpha}_3$  reporting costs outweigh the free deterrence provided by the NGO and the government decides to increase its



optimal probability of detection.

Having examined the effect of the NGO on government policy, let us consider the effect of the NGO on the number of international criminals in society. Given the uniform distribution of  $b$ , this number is given by  $n = 1 - pf$ . Therefore given 3.6, without NGOs and with a biased government the number of criminals in society is given by :

$$n_2^* = 1 + \frac{c}{F} - h\beta_g \quad (3.14)$$

To determine  $n_3^*$  we first need to determine  $q_3^*$  since  $n_3^* = 1 - p_3^*F - q_3^*$ . We obtain  $q_3^*$  by inserting  $p_3^*F$  into  $q_1^{BR}$  :

$$q_3^* = \frac{h}{\theta} + 1 + \frac{c}{F} - \frac{x}{\theta} - \frac{h\beta_g}{2} - \frac{\alpha}{2} \quad (3.15)$$

And from 3.13 and 3.15 we have :

$$n_3^* = 1 + \frac{c}{F} - \frac{h\beta_g}{2} - \frac{\alpha}{2} \quad (3.16)$$

**Proposition 3.** *Define  $\underline{\alpha}_{n3} = h\beta_g$ . When the government is biased, the number of international criminals in the society is smaller in the presence of an NGO when  $\alpha > \underline{\alpha}_{n3}$  and higher when  $\alpha < \underline{\alpha}_{n3}$ .*

**Proof.** Recall  $n_2^* = 1 + \frac{c}{F} - h\beta_g$  and  $n_3^* = 1 + \frac{c}{F} - \frac{h\beta_g}{2} - \frac{\alpha}{2}$ .

Therefore  $n_3^* < n_2^*$  if :

$$1 + \frac{c}{F} - \frac{h\beta_g}{2} - \frac{\alpha}{2} < 1 + \frac{c}{F} - h\beta_g$$

$$\alpha > h\beta_g \equiv \underline{\alpha}_{n3}$$

□

As with government strategy, the effect of the NGO on the number of criminals in society depends on the magnitude of the marginal cost  $\alpha$  that reporting inflicts on the government. The more heavily biased the government is ( $\beta_g$  small), the lower  $\alpha$  needs to be to make NGO reporting beneficial and reduce the number of criminals. We

consider in the next section the case where the NGO is upward biased in its perception of the social harm of crime.

### 3.2.3 Downward biased government with upward biased NGO

In this section, the NGO is biased upward in its perception of social harm. As in section 3.2.2, the government plays first, the NGO second, and we solve the game backwards by considering the NGO's strategy first.

#### Biased NGO

The only variation from section 3.2.2 is  $\beta_o > 1$ , the NGO's bias in its consideration of social harm  $h$ . This exogenous bias could be interpreted as a degree of radicalism of the NGO. The more radical the NGO is in its fight for human rights, the higher  $\beta_o$  is. The objective function of the biased NGO is :

$$U_2 = \int_{pf+q}^1 (\theta q - h\beta_o) db - xq \quad (3.17)$$

The NGO decides on the level of reporting  $q$  that maximizes  $U_2$  and the first order condition is :

$$\frac{\partial U}{\partial q} = 0 \iff \theta - \theta pf - 2\theta q + h\beta_o - x = 0 \quad (3.18)$$

And from 3.18 we obtain the reaction function of the biased NGO to the international criminal policy of the biased government :

$$q_2^{BR} = \frac{1}{2} \left( 1 - pf + \frac{1}{\theta} (h\beta_o - x) \right) \quad (3.19)$$

Not surprisingly,  $q_2^{BR}$  is increasing in the magnitude of the NGO's bias. We consider in the next section the government's strategy in reaction to a more aggressive reporting strategy by the NGO.

### Biased government monitored by biased NGO

The government anticipates the reaction  $q_2^{BR}$  of the biased NGO and its objective function is :

$$S_4 = \int_{pf+q_2^{BR}}^1 (b - \beta_g h) db - cp - \alpha q_2^{BR} \quad (3.20)$$

With  $pf + q_2^{BR} = \frac{1}{2} \left( 1 + pf + \frac{h\beta_o}{\theta} - \frac{x}{\theta} \right)$ , equation 3.20 is rewritten :

$$S_4 = \left[ \frac{1}{2} - \beta_g h \right] - \left[ \frac{\left( 1 + pf + \frac{h\beta_o}{\theta} - \frac{x}{\theta} \right)^2}{4} - \left( 1 + pf + \frac{h\beta_o}{\theta} - \frac{x}{\theta} \right) \frac{\beta_g h}{2} \right] - cp - \frac{\alpha}{2} \left( 1 - pf + \frac{h\beta_o}{\theta} - \frac{x}{\theta} \right) \quad (3.21)$$

Again by the proof in Appendix A, the optimal sanction is the maximum one,  $f^* = F$ , and the first-order condition with respect to  $p$  is :

$$\frac{\partial S_4}{\partial p} = 0 \iff \frac{-pF^2}{2} - \frac{F}{2} - \frac{Fh\beta_o}{2\theta} + \frac{Fx}{2\theta} + \frac{F\beta_g h}{2} - c + \frac{\alpha F}{2} = 0 \quad (3.22)$$

From which we get :

$$p_4^* F = h\beta_g + \frac{x}{\theta} + \alpha - \frac{h\beta_o}{\theta} - \frac{2c}{F} - 1 \quad (3.23)$$

And from equation 3.23 it is direct that

**Proposition 4.** *Assume  $\beta_o > 1$ . The optimal probability of detection set by a biased government is smaller when the NGO is biased than when the NGO is unbiased.*

**Proof.** Recall  $p_3^* F = h\beta_g + \frac{x}{\theta} + \alpha - \frac{h}{\theta} - \frac{2c}{F} - 1$  and  $p_4^* F = h\beta_g + \frac{x}{\theta} + \alpha - \frac{h\beta_o}{\theta} - \frac{2c}{F} - 1$ . Therefore  $p_4^* F < p_3^* F$  if :

$$h\beta_g + \frac{x}{\theta} + \alpha - \frac{h\beta_o}{\theta} - \frac{2c}{F} - 1 < h\beta_g + \frac{x}{\theta} + \alpha - \frac{h}{\theta} - \frac{2c}{F} - 1$$

$$\beta_o > 1$$

□

Proposition 4 indicates that in this context, the NGO bias appears to be a counter-productive lever on the government strategy since their respective biases regarding international crime go in the opposite direction. Here, the threshold at which NGO reporting increases the optimal probability of detection set by the government is given by the condition  $p_4^*F > p_2^*F$  from which we get  $\alpha > \frac{1}{\theta}(h\beta_o - x) + \frac{c}{F} + 1 \equiv \underline{\alpha}_4$ . Therefore, it is direct that  $\underline{\alpha}_4 > \underline{\alpha}_3$  and the difference between the two thresholds increases with the magnitude of the NGO bias. Let us now solve  $q_4^*$  to examine the effect of NGO bias on the number of international criminals. Inserting  $p_4^*F$  into  $q_2^{BR}$ , we find :

$$q_4^* = \frac{h\beta_o}{\theta} + 1 + \frac{c}{F} - \frac{x}{\theta} - \frac{h\beta_g}{2} - \frac{\alpha}{2} \quad (3.24)$$

And from 3.23 and 3.24 we get :

$$n_4^* = 1 + \frac{c}{F} - \frac{h\beta_g}{2} - \frac{\alpha}{2} \quad (3.25)$$

And from 3.25, we derive the following proposition :

**Proposition 5.** *Define  $\underline{\alpha}_{n4} = \underline{\alpha}_{n3} = h\beta_g$ . The number of international criminals in the society remains unaffected by the magnitude of the NGO bias.*

**Proof.** Recall  $\underline{\alpha}_{n3} = h\beta_g$ ,  $n_2^* = 1 + \frac{c}{F} - h\beta_g$  and  $n_4^* = 1 + \frac{c}{F} - \frac{h\beta_g}{2} - \frac{\alpha}{2}$ .

Therefore  $n_4^* < n_2^*$  if :

$$1 + \frac{c}{F} - \frac{h\beta_g}{2} - \frac{\alpha}{2} < 1 + \frac{c}{F} - h\beta_g$$

$$\alpha > h\beta_g \equiv \underline{\alpha}_{n4} = \underline{\alpha}_{n3}$$

□

Therefore, in this context the NGO bias is not a relevant lever to reduce the number

of international criminals in society either. The additional deterrence associated with the NGO bias is used by the government to reduce its optimal probability of detection by the same amount, so the effect on the number of criminals in society is null. The bias shifts the burden of deterrence from the government to the NGO. Again, the marginal cost of reporting to the government  $\alpha$  appears to be the key parameter for both pushing the government to invest more in detection and reducing the number of international criminals.

### 3.3 Concluding remarks

This article contributes to the literature on law enforcement in an international criminal setting (Lecorps, 2021). Human rights NGOs have been a leading actor in the field of international criminal justice for decades. We propose a theoretical framework for assessing the contribution of NGOs monitoring and reporting international crime to the enforcement of international criminal law when the government has common interests with international criminals. Our results suggest that the presence and activity of these NGOs can be socially beneficial under certain conditions. These conditions require that the NGO's reporting be sufficiently costly to the government. As long as the government does not incur sufficiently large costs, the NGO's activity is counterproductive. Until the government incurs sufficiently large costs, the NGO's activity does not improve either the probability of detection set by the government or the level of deterrence of international crime in society. Moreover, in this context, the radicalism of the NGO does not improve the situation, on the contrary it is counterproductive. Therefore, on the one hand, this paper identifies NGOs that monitor and report international crimes as a promising lever for improving the international criminal justice situation when the government is failing. On the other hand, these results suggest that the NGO needs to be supported by other forces that create strong and tangible consequences for governments. If the activity of these NGOs is not sufficiently supported by the international community, trading partners, businesses or consumers to make it sufficiently costly, this lever seems unlikely to produce socially beneficial effects.

## Appendix A

The government's problem is given by :

$$L(p, f, \lambda) = \left[ \frac{b^2}{2} - bh \right]_{pf}^1 - cp + \lambda[F - f] \quad (26)$$

First-order conditions are :

$$\frac{\partial L}{\partial p} = 0 \iff -pf^2 + fh - c = 0 \quad (27)$$

$$\frac{\partial L}{\partial f} = 0 \iff -p^2f + ph - \lambda = 0 \quad (28)$$

If the constraint is not saturated,  $\lambda = 0$  and with 28 we have  $p^*f^* = h$ . However, in this case with 27 we have  $-c = 0$  which is not possible since by assumption the marginal cost of the probability of detection is positive. Therefore the constraint is saturated  $\lambda^* > 0$  and  $f^* = F$ .

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# Conclusion générale

Cette thèse souhaite contribuer à la compréhension du phénomène de dissuasion à travers trois chapitres développant chacun un point d'entrée du sujet. Le premier, théorique, s'intéresse à la nature organisée de la criminalité pénale internationale et par conséquent à l'allocation optimale des ressources de la politique répressive entre les membres de l'organisation. Le second, empirique, teste et mesure l'effet dissuasif de la Cour pénale internationale qui est aujourd'hui un acteur incontournable de la justice pénale internationale. Le troisième, théorique, étudie le rôle et les effets des organisations non-gouvernementales (ONG) pour influencer sur la politique répressive des gouvernements qui dévièrent de la politique optimale. Ces contributions permettent de dégager quelques principes et enseignements qui se rattachent tous, de manière plus ou moins directe, à des questions d'incitation ou d'allocation de ressources. Il s'agit, à cette étape conclusive, de résumer ceux qui nous semblent susceptibles d'être utiles aux décideurs publics.

## *Le dommage social devrait être la boussole de la politique pénale internationale*

Dans certaines zones du monde, la criminalité pénale internationale, structurellement élevée, génère un dommage social durable et très lourd. À ce propos, le premier chapitre met en évidence deux principes intuitifs mais qu'il semble utile de rappeler. D'abord, le dommage social devrait constituer le point de référence du décideur public pour déterminer le niveau des ressources à consacrer à la politique répressive. Ensuite, au delà d'un certain niveau de dommage, le décideur public devrait faire peser une menace de sanction sur l'ensemble des criminels internationaux. Par conséquent dans les zones où la criminalité pénale est élevée, que la mise en oeuvre se fasse par les

juridictions nationales ou par la Cour pénale internationale, le niveau des ressources allouées à la politique répressive devrait être fixé à un niveau structurellement élevé. Il semble par ailleurs difficile de croire que la criminalité pénale internationale peut être endiguée par une politique répressive agissant uniquement sur les incitations d'un leader ou d'une poignée de très hauts-responsables. Non seulement des ressources élevées devraient être consacrées à la politique répressive, mais ces ressources devraient avoir des répercussions sur les incitations du plus large spectre possible d'individus susceptible de prendre part à des crimes internationaux. La politique pénale internationale est certes coûteuse, mais son absence ou son sous-dimensionnement pourrait s'avérer plus coûteux encore. Sur ce point, la mise en place d'une collecte systématique et fiable de données statistiques sur la criminalité pénale internationale au niveau mondial permettrait d'améliorer la mesure et donc, sans doute, la prise en compte par les décideurs du dommage qu'elle génère.

***Des marges pour améliorer l'effet dissuasif de la Cour pénale internationale***

Au prix de plusieurs années de négociations et de compromis, la Cour pénale internationale est entrée en fonctionnement en 2002 et s'est imposée, avec 123 pays membres, comme l'acteur international central de la mise en oeuvre du droit pénal international. Le second chapitre de cette thèse dresse, près de 20 ans après son lancement, quelques enseignements au sujet de l'effet dissuasif de la CPI. D'abord, la Cour ne semble pas produire d'effet dissuasif général que ce soit à l'égard des violences commises par les gouvernements ou des violences commises par des groupes non-gouvernementaux. Ce premier résultat n'est pas problématique puisque la CPI n'a pas été conçue pour produire des effets en population générale mais comme une juridiction de sécurité destinée à intervenir et produire des effets dans les zones où des crimes internationaux sont commis et où les juridictions nationales sont défailtantes. Dans les pays considérés à risques, où les institutions sont susceptibles d'être défailtantes et le niveau de violence est élevé, la CPI génère un effet dissuasif sur les violences commises par les groupes non-gouvernementaux mais ne génère pas d'effet sur les violences commises par les gouvernements. Par conséquent, en termes de dissuasion, le bilan de la Cour est en

demi-teinte et des marges de progression existent. Un premier volet de progression concerne les incitations aujourd'hui nettement asymétriques et favorables aux gouvernements qui ont la main sur la ratification, la coopération et éventuellement la sortie du Statut de Rome. L'obligation légale de coopérer avec la Cour pour les gouvernements qui est aujourd'hui loin d'être parfaitement respectée pourrait s'accompagner de toute une possibilité d'incitations positives ou négatives poussant à une coopération plus forte qui renforcerait *in fine* la crédibilité de la menace de la CPI. Un second volet de progression concerne le budget de la CPI dont l'augmentation permettrait de rendre plus certain la probabilité d'être détecté et sanctionné par la Cour. Il semble en effet difficile de penser qu'avec 149 millions d'euros en 2020, ce qui représente par exemple environ 12% du budget de la conduite de la politique pénale de la France, le budget de la Cour soit correctement dimensionné pour conduire une politique pénale internationale dans 123 pays du monde.

### ***Soutenir l'activité des acteurs non-gouvernementaux contribuant à la dissuasion***

La représentation de centaines d'acteurs non-gouvernementaux à Rome lors de la mise en place de la Cour pénale internationale illustre leur importance dans le paysage et la mise en oeuvre du droit pénal international. La quantité et la diversité de ces acteurs constituent un vivier de ressources susceptible de contribuer à la dissuasion des crimes internationaux. L'action et la liberté de ton de ces ONG sont précieuses car elles ne sont pas contraintes, comme peuvent l'être celles de États, par des équilibres politiques, économiques et diplomatiques à préserver. Le troisième chapitre de cette thèse s'intéresse spécifiquement aux ONG comme *Human Rights Watch* dont l'activité consiste à surveiller et dénoncer la commission de crimes internationaux à travers le monde. Les résultats de ce chapitre suggèrent que l'activité de ces ONG pourrait être bénéfique à la dissuasion à condition que les gouvernements qui ne mettent pas correctement en oeuvre la politique pénale internationale subissent des conséquences suffisamment lourdes. Les leviers pour rendre l'activité des ONG socialement profitable sont nombreux et peuvent être activés par tous types d'acteurs. La communauté internationale et ses différentes organisations peuvent par exemple conditionner leur soutien

et l'accès à certaines organisations internationales à des efforts entrepris sur la mise en oeuvre de la politique pénale internationale par les gouvernements. Les États peuvent par exemple conditionner des termes avantageux dans leurs accords commerciaux bilatéraux à des efforts sur la mise en oeuvre du droit pénal international. Les entreprises peuvent refuser de produire ou de distribuer leurs produits ou services dans les pays qui ne produisent pas d'efforts suffisants en la matière. Enfin, au niveau individuel, les comportements de consommation par exemple peuvent également participer à alourdir les conséquences pour les gouvernements qui ne mettent pas en oeuvre une justice pénale internationale satisfaisante. En tout état de cause, la force de l'action menée par les ONG dépend d'une responsabilité collective qui pourrait être vivifiée.

