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Evidence on women trafficked for sexual exploitation:

A rights based analysis

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Abstract - The aim of this paper is to investigate which factors influence the pattern of enforcement (violation) of basic rights among women trafficked for sexual exploitation. A conceptual framework is adopted where the degree of agency and the possibility to influence the terms of sex-based transactions are seen as conditional on the enforcement of some basic rights. Using IOM data on women assisted in exiting from trafficking for sexual exploitation, we investigate the enforcement (violation) of five uncompromisable rights, namely the right to physical integrity, to move freely, to have access to medical care, to use condoms, and to exercise choice over sexual services. By combining classification trees analysis and ordered probit estimation we find that working location and country of work are the main determinants of rights enforcement, while individual and family characteristics play a marginal role. Specifically, we find that (i) in lower market segments working on the street is comparatively less 'at risk' of rights violation; (ii) there is no consistently 'good' or 'bad' country of work, but public awareness on trafficking within the country is important; (iii) the strength of organized crime in the country of work matters only in conjunction with other local factors, and (iv) being trafficked within one's country, as opposed to being trafficked internationally, is associated with higher risk of rights violation.

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1. Introduction

Growing commoditization of the female body and new waves of migration sustain the increase in trafficking for sexual exploitation worldwide. Like prostitution or pornography, trafficking for sexual exploitation has grown rapidly over the past decades. International sources estimate that between 68% and 87% of the entire volume of trafficking in persons is for the purpose of sexual exploitation.[1] The source countries are mainly located in the developing world and the Eastern European block, whilst the primary destination is the developed world.

The phenomenon has attracted limited interest in academia owing to a lack of data or to reluctance to analyse topics perceived as being highly emotionally charged. It has, however, received attention not only from international organizations (European Commission 2004; ILO 2005; IOM 2005, 2006), but also from NGOs and the media, which have often portrayed trafficking in dramatized and stereotypical terms.

Using the largest source of individual data on trafficking collected by the International Organization for Migration[2] (IOM hereafter) we investigate the pattern of violation of certain basic rights among women trafficked for sexual exploitation. Although it has become common in the media to lump all trafficked workers together in the emotional category of 'new slaves', we believe that meaningful analysis of trafficking for sexual exploitation should be separated from analysis of trafficking for other purposes. Moreover, it is well known that gender matters in the organization and actual conditions of sex work even within trafficking (Garofalo 2006). We have therefore chosen to focus our analysis exclusively on trafficking in women for sexual exploitation.

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[1] ILO estimates that 43% of human trafficking in its entirety is solely for the purpose of sexual exploitation, and an additional 25% is for economic and sexual exploitation (ILO 2005, Fig. 1.4, p.14). Our IOM data, as well as the UNODC (2006) report, reveal exactly the same figure (87%) for the share of trafficking for sexual exploitation, although UNODC counts sources of information rather than the persons that have been trafficked. See also Section 3 for more detailed descriptions of the UNODC and the IOM data sources.

[2] http://www.iom.int/jahia/Jahia/pid/748

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Most of the reports produced by international organizations adopt a rights-based approach to the analysis of trafficking – including trafficking for sexual exploitation. More generally, this approach has been indicated as a promising research direction for issues of concern to feminist economists (Patel et al. 2007). What is normally understood by a 'rights-based approach' is a normative perspective where the object of investigation is the degree to which a given phenomenon deviates from, or complies with, an a priori list of uncompromisable rights. Whilst we sympathize with this approach, here we take a somewhat different perspective. Focusing on female prostitution and trafficking, we view certain rights as relevant to analysis and policy insofar as they are preconditions for the enforcement of the woman's agency and her ability to influence the terms of the transaction.

The IOM data enable us to perform analysis of violation of the following rights: freedom (for the trafficked women) to choose among services, freedom of movement, ability to use condoms, absence of abuse, and access to medical care. The specific hypothesis that we put to econometric test is that location and country of work significantly influence the pattern of violation of these rights among women trafficked for sexual exploitation. Using a combination of Classification Trees Analysis and Ordered Probit estimation, we obtain results that largely support this hypothesis. The results indicate, moreover, that the socio-economic characteristics of trafficked women are relatively poor predictors of which rights are denied to them and how severely.

The structure of the paper is as follows. Section 2 presents our view on the place of rights in the analysis of prostitution and trafficking. Section 3 provides a descriptive account of our data. Section 4 sets out the methodology of the empirical investigation adopted for this paper. The results are presented and discussed in Section 5. The last section summarises and examines policy implications.

2. Prostitution, trafficking for sexual exploitation and basic rights

Two intertwined dichotomies oppose trafficking and prostitution in the current debate. The first one sets choice among prostitutes in opposition to non-choice among persons trafficked for sexual exploitation, partly in an attempt to remove social stigma from the latter. In the view of some commentators, a second opposition follows between 'victims' – the persons trafficked for sexual exploitation – and 'sinners' – the prostitutes who are willing partners in a transaction that goes against God or degrades women.[3]

Even if we were willing to accept that the issue of choice is the central concern from a moral or philosophical standpoint, it would be largely irrelevant to the actual investigation of working and living conditions for trafficked people that we intend to carry out in this paper. This is because evidence on actual as opposed to revealed choices is hard, if not impossible, to obtain. Moreover, there are few reasons, if any, to presume that people deceived into trafficking for sexual exploitation are systematically treated differently from knowing and willing prostitutes operating within a trafficking network.

Anthropologists would look at the distinction between prostitution and trafficking for sexual exploitation in less schematic terms. Elucidating this point requires a brief excursus into the recent anthropological literature. This digression is important for understanding not only the relationship between prostitution and trafficking, but also the place of certain basic rights in the investigation of actual working conditions within trafficking.

Tabet (2004), an Italian anthropologist who has devoted much of her scholarship to the study of prostitution, draws extensively on classic and contemporary research in the discipline, and on her own research in Niamey (Nigeria), to argue that in all societies sex-based forms of exchange – from marriage to sexual slavery – involve economic transactions that place the

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[3] For a philosophical reflection on this debate taking the view that such distinctions are salient see Dickenson (2006).

different forms along a continuum with respect to the quantity of goods and rights transacted, the persons in the transactions, the length of the transaction, and so on.[4]

Tabet's argument can be illustrated by considering two of the predominant forms of exchange: prostitution and marriage. In Western society there is broad consensus – reflected in the definitions commonly found in dictionaries and encyclopaedias - that the two elements distinguishing prostitution from marriage (and other sex-based relations) are promiscuity and payment. However, this has not always been the case, and it is still not the case in some societies. Among the Birom (Nigeria), for example, every married woman legitimately engages in at least one sexual relationship with a male partner who is not her husband but has received from the latter permission to have sexual access to her in exchange for a goat. In addition, the partner regularly gives 'presents' to the woman and her children; money presents having become common in more recent years. These presents are so economically important for the woman that she can hardly conceive not having a partner outside the marriage. Yet the partner does not have legal paternity; nor can he exercise claims over the woman's labour or what she produces. A rather different arrangement occurs among the Hausa (in Niger), where girls are initiated into sex before puberty by a variety of men who obtain permission to do so from the Chief of Initiation, and pay for it. The girls do not receive any money, however, and are not considered prostitutes. This same population considers as prostitutes those women who freely choose to sell sexual services to men, but prostitution is often temporary: for example, it is entered after a divorce and does not prevent re-marriage (Echard 1981 and Smedley 1980 quoted in Tabet 2004, p. 26-27).

Given that the degree of continuity between marriage and prostitution with regard to payment or promiscuity can be high, as suggested by the above examples (and many others in the anthropological literature), does it make sense to distinguish between different forms of sex-based exchange? And if it does, what other criteria are relevant? According to Tabet, two

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[4] In a different area, Rozee's analysis of rape (Rozee 1993) also develops the idea of a continuum based on social norms of distinct circumstances.

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criteria are of interest: reciprocity of the exchange (or lack of it), and whether the right being surrendered in the exchange is, to use a core concept of Roman Law, *ius in personam* or *ius in rem* (right over a person or right over a real thing).

Reciprocity and agency. Levi Strauss asserted that marriage is an exchange of women between groups of men, not between women and men.[5] Tabet took Levi-Strauss' argument further by suggesting that, whilst in several traditional types of marriage women have often been objects of exchange with limited agency, in some forms of prostitution they have been 'partners', and by being so have often gained agency. This in no way implies that prostitution is superior to marriage, if only because there is no universal type of marriage to be compared with an equally universal type of prostitution. That said, the gain in agency entailed by the shift from being an object to being a partner goes beyond formal freedom of choice to enter the transaction and conduct it directly. With regard to prostitution, so-called 'independent' prostitutes today enjoy freedom of choice over clients and services (see below), but this is not sufficient to ensure that they sell only what they want, and on their terms. Pia Covre, co-founder with Carla Corso of the Committee for Civil Rights of Prostitutes in 1983 (Rome, Italy) vividly put the point as follows: "You [prostitute] start by asking what you want and what you are willing to offer. If you have no strong need to accept that client that same day, then everything is all right and you can impose your own terms. This is more or less what happens in the labour market …" (quoted in Tabet 2004, p.94. Our translation, our additions in brackets).[6] In other words, freedom of choice is a prerequisite of actual agency, but it does not coincide with the latter.

Ius in personan and in rem. Sex-based exchanges may entail a transfer of rights 'over a person' or 'over things'. Many traditional types of marriages are cases of transfer of rights over

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[5] Levi-Strauss (1967) – "…the whole relation of exchange that constitutes marriage is not defined between a man and a woman with each partner owing something and receiving something from the other …… the relationship is defined between two groups of men and the woman features in it as an object of exchange, not as one of the partners in the exchange." [Our translation].

[6] One of the few attempts to model prostitution in economics (Della Giusta et al. 2007) emphasizes the importance of alternative earnings opportunities that the last reported statement by Covre underlines.

a person – her sexuality but also her labour, physical or emotional, for housework, production or reproduction – given in exchange for lifetime maintenance. Some forms of prostitution also involve a transfer of rights over a person, and this was more frequent in the past. An example is provided by the *malaya* of Nairobi, whom White studied between 1930 and 1950 (White 1990). The *malaya* waited for her client at home, and attended to all his wants in addition to his sexual demands: eating, bathing, sleeping and talking; so much so that White equated prostitution with housework. Current forms of independent prostitution in the West, in contrast, exemplify the transfer of rights over a thing: the object being transacted is very well defined and measured – e.g. straight sex for 10 minutes wearing a condom, no kisses on the mouth, no petting, and the hotel paid by the client – with the price being agreed and paid in cash beforehand. As Covre declared in a public debate in Florence (1987) " …he [the client] cannot buy my sexuality". The history of prostitution can, in fact, be read as the struggle to change sexual transactions from being transfers of rights over a person to one of rights over a thing. Thus, the more prostitution becomes an exchange where the woman acts as a partner and where the transfer concerns rights over things, the more it turns into a 'free' labour relationship, as the expression is normally understood.

We may now conclude this excursus into anthropology and return to the more familiar language of economics or law. Positing a continuum of sex-based exchanges is equivalent to positing a continuum of contractual arrangements (Garofalo 2007). Breaches in this continuum, i.e. meaningful distinctions between types of contractual arrangements, arise because of the combined influence of the woman's degree of agency (being a partner and able to influence the terms of the exchange) and the precision with which the different components of the transaction (rights being transferred) are measured, priced, and negotiated separately, as happens when employment contracts are negotiated in a well developed labour market.

From this perspective, trafficking in sexual exploitation and prostitution can, but need not be as clearly separated as the choice/no choice dichotomy suggests. Arguably, a clear break

sets modern, independent prostitution apart from the worst forms of trafficking where slavery like conditions prevail. In reality, however, we are likely to find rather diversified conditions between these two extremes, both in prostitution and in trafficking. To remain with contemporary prostitution, alongside the more favourable examples of self-entrepreneurship where a prostitute organises business on her own, sets her own terms and effectively protects herself against the many hazards of the trade – from health problems to violence to drug addiction – the sex industry comprises less attractive cases where prostitutes are regularly abused by their pimps or clients, or they are exploited by an older woman in the trade (e.g. the Nigerian 'madames'). The issue then becomes determining the factors which affect the woman's degree of agency and her capacity to influence the terms of the exchange.

The following excerpts are taken from recordings of public seminars held in Rome at the Centro Culturale Virginia Woolf in 1986 by Carla Corso, co-founder with Pia Covre of the Committee for Civil Rights of Prostitutes.[7]

"..... I think that we [prostitutes] really began to get to the core [*scarnificare*] of the sexual transaction with the client when we became free to choose the client and the type of services....."

"..... In the old brothels [outlawed in 1958 in Italy by the "Legge Merlin"] ..…women were much more compliant ….. There was no clear correspondence between services and payment…. the revolutionary thing is that [now] they [the prostitutes] choose the service they want to offer."

"..... It is something that you learn on the street, talking to the others. I did not even know that condoms were used….. The condom is very important, not to prevent pregnancy (I used the pill at that time) but because it sets a barrier between yourself and the client…. If you need to spend more time with them [the clients] because they need to

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[7] Our translations and our additions in square brackets.

tell you about their problems with their wives, then they have to pay more than the fee
….."

"….. and you realize that working on the street means more freedom; ….. I would never work in a closed space or in a bar….. On the street ….. I am the one who decides whether I can go with him, whether he inspires confidence….."

The above quotations prompt two considerations. Basic rights – like being able to move freely, to choose clients and services, or to use condoms – are necessary, if not sufficient, to ensure effective agency in the transaction, and they have a significant bearing on the terms of the transaction. Factors like the working location are in turn likely to influence the degree to which these rights are enforceable. If, as we have argued, prostitution and trafficking can be placed along a continuum of contractual arrangements, then it makes sense to verify to what extent such rights are enforced (or violated) among women trafficked for sexual exploitation, and to establish what determines the pattern of enforcement (violation).

This is precisely the goal of our empirical investigation. The IOM data set is the largest collection of individual data on trafficking worldwide. The questionnaire investigates the degree of enforcement of the following five rights:

- Freedom (for the trafficked woman) to choose services

- Freedom of movement

- Ability to use condoms

- Absence of abuse

- Access to medical care

Further brief discussion is required of the importance of freedom of movement, freedom to choose clients and services, and to use condoms, for effective agency and the ability to influence the terms of the transaction. Freedom of movement not only strengthens the ability to choose or refuse clients but also facilitates exit from the industry or from a specific organisation. In turn, any lowering of exit barriers dramatically alters the bargaining power of

the bonded person. As stated by the prostitutes themselves, moreover, the ability to use condoms not only protects health and reproduction but also imposes the kind of distance that in 'proximity work' helps restrict the claims advanced by the client.[8] The rights not to be abused and to have access to medical care are fundamental human rights to be advocated in themselves, but they also influence the outcome of sexual transactions. There is a large body of evidence that violence has been and is still used in prostitution by third parties or by clients to enforce compliance, and this occurs even more frequently in trafficking (Van den Anker and Doomernik 2006). Denial of access to medical care is, on the one hand, a form of abuse and, on the other, an additional barrier to exit: access to medical services may offer trafficked prostitutes both reasons to escape and support for it.

The overall picture that the IOM data offers on enforcement of this bundle of rights is dark but not uniformly black. However, the data are derived from interviews with persons that the IOM assessed as being in need of assistance to exit from trafficking. They may therefore bias the picture towards the worst cases of rights violation (see also sections 3 and 4 below). Practically all the IOM interviewees suffered partial or total restrictions on at least one of the above rights, as to be expected for women assessed as being in need of assistance. Extreme cases, however, are infrequent even in the IOM sample, and sufficient variation exists to interrogate the data on the factors that influence the pattern of rights violation.

If we confine analysis to the subset of cases with valid records on four of our five rights – we exclude freedom of choice on services because it records the highest numbers of missing answers - only 35 women state that all these rights are violated, whilst 17 report no violation at all. Bearing in mind that violation of each right has been ordered on a severity scale ranging from negligible to intermediate to severe, the remaining cases are divided between those reporting no severe restrictions on the four rights (17%), severe restriction on just one of the rights (28%), on two of them (38%) and on three of them (14%).

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[8] See the above quotations from Covre and Corso.

The specific hypothesis tested here is that the working location and the country of work significantly influence which right is violated and how seriously. This choice of hypothesis is justified, we believe, on grounds of conceptual, empirical and policy relevance. Conceptual relevance first. As in any other labour relation, the spatial organisation of work impinges greatly on contractual arrangements. Consider the change brought about by the transition from dispersed cottage industry to the factory in early industrialization. Or the changes that teleworking has introduced with respect to office work. Although we are not aware of any study of prostitution or trafficking that focuses on the place of work as a relevant analytical category, the above quotations from Corso are indicative of how, for example, working on the street versus a closed brothel may impinge on the individual sex worker's ability to refuse clients or to delimit the client's claims (note also that the brothels to which Corso refers were fully legal and regulated, whilst those organized by traffickers are not). Moreover, different work locations in the industry often distinguish different segments of the market, and the ability to pay, culture, and tastes of clients in a particular segment may influence the working conditions of sex workers, including those that have been trafficked. To cite an example drawn from our data, a more sophisticated male clientele frequenting upmarket bars and nightclubs may be less inclined to use violence or to tolerate the manifest use of violence by others.

Turning to the empirical relevance of our hypothesis, the fact itself that the IOM questionnaire devotes one section to ascertaining the precise nature of exploitation in relation to working conditions, including the working location of trafficked women, reflects the priorities identified in the field by the experts and social workers whose experiences were used when drafting the questionnaire. As to policy relevance, the periodic attempts by legislators to take prostitutes off the streets in order to remove them from public sight highlight the importance of investigating how location affects the working and human conditions of trafficked prostitutes.

The country of work may matter on three different counts. First, the organisation of trafficking is influenced by the character of organised crime in the country of origin and that of destination. For example, Italian organised crime is reported to have recently 'delegated' trafficking for sexual exploitation in Italy to Albanians or Romanians (Becucci 2006), but not without imposing some general rules and boundaries. Second, legislation on immigration and on trafficking may differ from country to country, and this can lower or raise barriers against exit from the industry. An example is the so-called 'article 18' in Italy, which allows trafficked women to obtain legal aid without revealing the identity of their trafficker or being deported to their country of origin (Orfano 2002). Thirdly, the clienteles in different countries differ in their ability to pay and in their preferences, which in turn may influence working conditions.

One disadvantage in identifying 'country effects' – e.g. seeking evidence that trafficked women working in Ukraine suffer greater restrictions on their freedom of movement than elsewhere – is that such effects reflect the combined influence of heterogeneous and possibly opposing factors. However, given that knowledge about trafficking is still fragmentary, we believe that being able to ascertain whether there are country patterns in the extent to which rights are violated is a step forward.

Reports on trafficking often abound with details on the socio-demographic characteristics of trafficked workers. Here we treat these characteristics as mere control variables. This is not to imply that, in our understanding, they are irrelevant to the enforcement/violation of our bundle of rights. We are simply focusing elsewhere, although our empirical investigation will provide indirect evidence on whether and how these characteristics matter.

3. Data

International Flows of Human Trafficking

The IOM dataset made available to us comprised 6257 records of interviews administered to victims of human trafficking who were granted assistance between 1999 and 2006.[9] Over two thirds of those assisted (71.1% of the 5374 cases recording this information) had been subject to international trafficking, as opposed to being trafficked in their own country. The vast majority of our observations are women (86.5% of the 6098 cases recording gender) and the modal year is 2004 (24.0% of the total). As already noted, the principal purpose of the trafficking recorded by our source is sexual exploitation (86.7%), followed by forced labour, with a tiny minority of victims been exploited for purposes of petty crime. The predominance of trafficking for sexual exploitation accounts for the gender composition in the dataset.

The flows of trafficking recorded by our source are illustrated in Figure 1. The main countries of origin (nationality) are the shaded areas, the largest in Europe being Moldova (23% of all observations), Romania (16.2%), Ukraine (13.8%), Belarus (8%) and Bulgaria (6%), whilst in Africa we have Mali (10.4%), Ghana (2.5%) and Niger (0.5%). An arrow shows the main destinations from a given country, while no arrow indicates that most of the nationals are trafficked internally.[10] The main countries of destination are, in decreasing order of importance, the Former Yugoslav Republic of Macedonia (FYROM), Mali, Bosnia, Serbia and Montenegro, Belarus, Ukraine, Albania, Italy, Moldova, Bulgaria and Turkey.[11]

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[9] The IOM first interviews candidates for assistance using the 'Screening Questionnaire' and subsequently decides whether or not to grant assistance. A second questionnaire is administered to those selected for assistance (the 'Assistance Questionnaire'). The latter includes practically all the questions in the Screening Questionnaire plus many more. Since the vast majority of screened applicants are granted assistance (80.4%), and practically no information is lost by using only the Assistance Questionnaire, our records are drawn exclusively from the latter.

[10] Countries like Belarus and Ukraine appear in the IOM dataset not only as main countries of origin, but also of destination. At the same time, according to the UNODC (2006, p. 104), the Commonwealth of Independent States (CIS) countries rarely feature as final destinations. Hence what the IOM categorizes as *internal trafficking* may also include women exploited for sexual purposes in their own countries prior to be sent to a different destination.

[11] The trafficking flows for the three largest countries of origin are the following. From Moldova 25% of persons trafficked to FYROM, 19.2% to Serbia and Montenegro, 18.7% to Bosnia, 10.3% to Albania, and 17.2% trafficked internally. From Romania 22.4% of persons trafficked to FYROM, 20.9% to Bosnia, 13.1% to Serbia and Montenegro, 11.7% to Italy, 11.5% to Albania, and 9.5% trafficked internally. From Ukraine 11.3% trafficked to Serbia and Montenegro, 9.6% to FYROM, 9.1% to Bosnia, and 47% trafficked internally.

As Figure 1 suggests, the IOM source is biased in favour of flows originating from Eastern Europe. This is clearly evidenced by comparison with the UNODC database – the other large source of data on global trafficking, which assembles records from a wide variety of sources, the media, NGOs, official reports and others (UNODC 2006). The following countries and areas of origin are largely or entirely uncovered by the IOM data: Brazil (missing entirely), Central and South America (largely under-represented), and the whole of Northeast and Southeast Asia, including China, Vietnam and the Indian subcontinent. Under-represented or non-represented areas of destination are the North American Continent (mainly the USA and Canada), Eastern Asia and the Indian subcontinent (mainly India, Vietnam, Cambodia and China) as well as Oceania (mainly Australia). The vast majority of IOM observations thus concerns European countries and ex-Soviet Republics, both as origin and destination, and evidence drawn from the data may be illustrative of trafficking flows in this area, not elsewhere.

Figure 1. Main countries of origin and destination of human trafficking in the IOM data
1.a. Europe
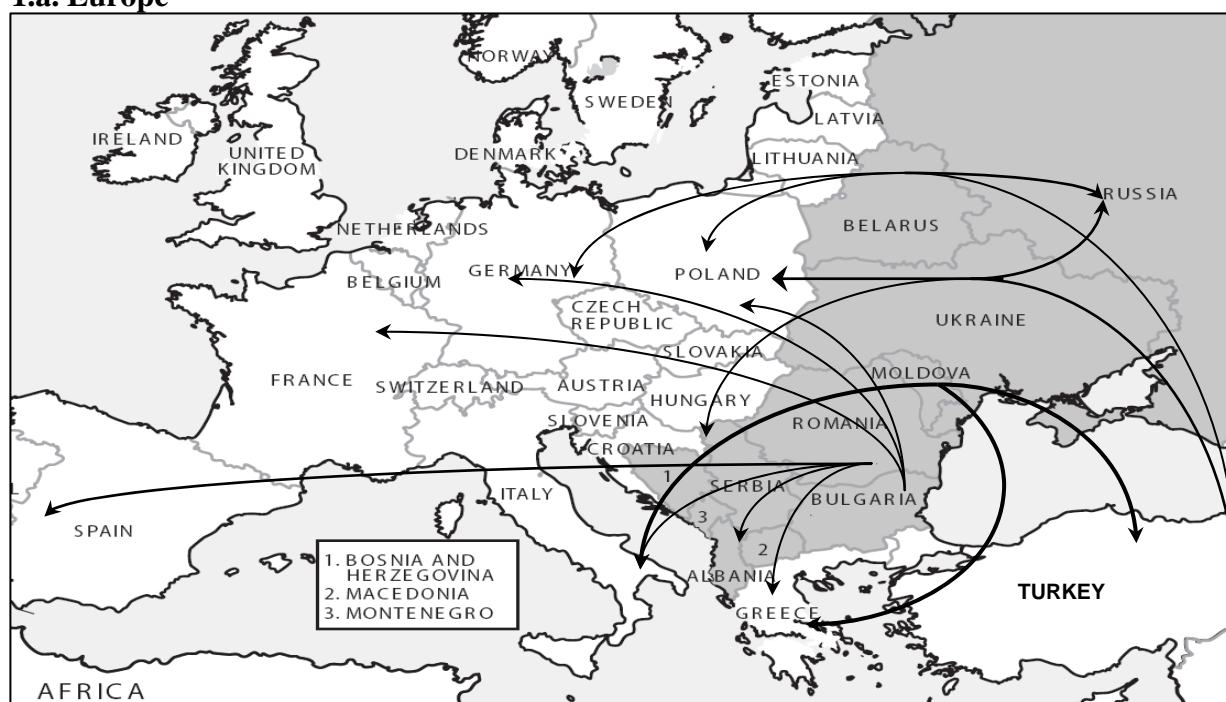
1.b. Africa

Key: The shaded areas correspond to the main countries of origin, and the arrows indicate the main countries of destination.
Source: IOM survey of victims of trafficking 1999-2006 (our own calculations).

Women trafficked for sexual exploitation

The IOM sub-sample of women trafficked for sexual exploitation comprises 5,427 observations. The available variables cover a vast range of information – demographic characteristics, the socioeconomic status of the family of origin, employment status and work experience prior to departure, details of the recruitment into trafficking and of the journey until the country of destination, the working location and working conditions at destination, access

to basic resources like medical care, use of violence, earnings from sex work as well as the share of retained earnings, types of clients, and how the victim was freed.

However, the number of missing answers is a serious drawback. The problem is especially severe for all the earnings related variables, many of which record more than 80% missing values: hours of work, number of clients per day, fee per client, share of retained earnings. Many 'sensitive' answers, such as those concerning the relation with the recruiters, the traffickers or the clients, also report very high proportions of missing answers.

The second serious problem is sample selection. Information derived from the IOM source may not be representative of the trafficked population as a whole because it refers to a distinctive group. Victims of trafficking either self-report to the IOM in order to obtain assistance (32.3%) or they are brought to the IOM by law enforcement agencies and NGOs (67.7%). It may therefore be argued that 'worse' cases are more likely to be included.

The methodology that we adopted for estimation was designed to minimize the loss of information due to missing answers. We also checked for selection bias.

4. Methodology

Three types of variables are involved in the estimation: respectively dependent, target and control. The *dependent variables* are the *five indicators of rights violation: severity of abuse, restrictions on freedom of movement, choice of services, use of condoms, and access to medical care*. As noted before, each indicator is ordered on a severity scale ranging from 0 to 2, so that, for example, restrictions on the use of condoms takes value 0 when use is regular or always allowed, 1 when it is not regularly allowed and 2 when it is never allowed. Table 1 presents the descriptive statistics for these indicators: the distribution of the answers along the severity scale shows that the worst pattern of violation concerns freedom of choice over services, whilst use of condom has a comparably favourable distribution. However, caution is warranted in regard to freedom of choice over services, because of the much higher incidence of missing answers.

Table 1. Description of dependent variables

Dependent variables	Brief description	Distribution (%)			Mean	Std. Dev.
		0	*1*	*2*		
Severity of abuse	0 not abused; 1 minor abuse; 2 physical/sexual assault and psychological abuse.	17.55	49.98	32.46	1.15	0.69
Restrictions on						
Access to medical care	0 regular/occasional; 1 only in emergency; 2 denied.	24.47	16.23	59.30	1.32	0.85
Freedom of movement	0 no restriction imposed; 1 only accompanied; 2 totally denied.	6.43	37.07	56.50	1.50	0.62
Use of condoms	0 regularly or always allowed; 1 not regularly allowed; 2 never allowed.	53.21	38.18	8.61	0.55	0.64
Choice over sexual services	0 yes; 1 partial; 2 none.	5.28	5.73	88.99	1.84	0.49

The *target covariates* are the five variables recording the working location – street, escort agencies, hotels and motels, bars and nightclubs, massage parlours and saunas – as well as the 10 largest destination countries.[12] The *control covariates* are all the other variables in the IOM dataset that report at least 50% valid answers and that the Classification Trees Procedure (more below) identifies as important predictors of the dependent variables. Table A1 in Appendix 1 lists and gives a brief description of all these covariates.[13]

We proceed in two steps. In the first step we employ a data mining technique – the Classification Trees procedure in DTREG – to select the control variables from the available IOM set. In the second step we estimate five ordered probit equations, one for each indicator of rights violation mentioned in the previous section.[14] The main econometric issue is self-selection. In order to check for it, we use a selection variable to split the sample and repeat the estimations on the largest sub-sample.

First Step. A decision tree is a logical model represented in the form of a tree structure that shows stepwise how the value of a given variable – in our case the five indicators of rights restrictions – can be predicted by using a set of variables called 'predictors' (see Figure A1 in Appendix 2). The DTREG algorithm ranks predictor variables in order of importance on a scale ranging from 0 to 100. We consider two threshold levels of variable importance, 10 and

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[12] Mali is one of the largest countries of destination but was excluded from the covariates because of the extremely high incidence of missing answers for the dependent variables among victims in Mali.

[13] Note that, following the suggestion from the UNODC (2006) and the literature on the connections between organised crime and trafficking (Becucci 2006, p.25), the Organized Crime Index (OCI) of the World Economic Forum (Porter et al. 2005) was added to the original IOM dataset. The OCI is based on assessment of the degree to which business suffers costs from organised crime, and is measured on a 1 to 7 scale where 1 stands for 'significant costs imposed' and 7 for 'no significant costs'.

[14] For further details on DTREG see Appendix 2.

20 respectively, thus selecting two sets of variables for each of our five indicators. It is important to note that for each indicator of rights the variables selected under the 20 point importance criterion is a subset of the variables selected under 10 point importance. We call Model 1 the ordered probit estimation incorporating the variables selected under the less restrictive criterion (10 and higher score of importance), while Model 2 derives from application of the 20 score threshold criterion. The list of variables that meet the importance threshold turns out to be somewhat different across the five indicators when the least restrictive threshold is adopted, while it is very similar under the more restrictive threshold.

One useful feature of the DTREG algorithm is that it replaces the missing values of the best predictor variable with those of the second best predictor, as briefly described in Appendix 2. This feature of the program makes it possible to analyze the problematic dataset at hand, where the share of missing values is generally high.

Second step. The five ordered probit equations are independently estimated and robust standard errors are computed in order to allow for possible model misspecification[15].

Selection bias. In order to control for the severity of selection bias we make use of the information on whether the woman self-reported to IOM or was brought to the organization by law enforcement agencies and NGOs. The underlying reasoning is that the subgroup of self-reporting victims is more likely to include women with higher incentives to exit – e.g. because of more severe ill-treatment – or for whom the consequences of exiting are less costly. The remaining subgroup is therefore likely to be more random. Based on this assumption, estimation of Model 1 (the least restrictive) is repeated after having dropped self-reporting women from the sample.

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[15] Ideally, the five equations should be estimated allowing for possible correlation between the respective error terms, i.e. using seemingly unrelated regression techniques. However, this would involve maximum likelihood type estimation across a five level integral, a disproportionately costly computation especially given the quality of the data available.

5. Results

We obtained intermediate and final results from our two-step procedure. The intermediate results concern the selection of variables for Models 1 and 2, whilst the final results refer to the actual estimation of the models, including the control for selection bias.

Variable selection

Although variables selection is instrumental to estimation, knowing which variables are categorized as important predictors and which are not is of interest in itself. Eight variables out of twenty four were discarded for not gaining the minimum importance score as predictors of at least one of the five indicators. They are listed in Table A1 of Appendix 1 and their exclusion itself is informative, since most of them are supply side variables. The indication that supply side characteristics have limited importance for the pattern of rights violation is further confirmed by the results of the ordered probit estimation presented below. The excluded variables feature demographic characteristics – being single, married or divorced and having children – as well as selected characteristics of the labour market position prior to departure, and of the recruitment process – whether the victim had previous work experience or was unemployed, whether recruitment occurred via personal contact or otherwise. In general, however, even those aspects of the labour market position and of the recruitment process that met the selection criterion turned out to carry limited importance at the estimation stage, as we document below.

Estimation

We report in Table 2 below the estimated marginal effects on the probability of falling into the highest class of rights violation for each of the five ordered probit equations, while the coefficients are reported in Table A.2 of Appendix 1. Although marginal effects measure the comparative influence of the different covariates, our primary interest is in the sign and the

level of significance of coefficients. The reason for focussing on the sign rather than the value of the marginal effects (or of the coefficient) is that a large number of missing answers is more likely to distort the latter than the former. However, significance and relative importance turned out to be highly correlated in our results, so that a significant coefficient is often associated with a large marginal effect.[16]

For a correct reading of the results, it should be borne in mind that all our five dependent variables are constructed in such a way that more means 'worse'. Thus, for example, the negative sign of the reported marginal effect of working on the streets on the probability that freedom to use condoms is severely restricted indicates that, on average, trafficked street prostitutes are comparatively less likely to be consistently denied the use of condoms. In general, negative indicates greater respect for rights, but it all depends on how the covariates are constructed. One notable exception is the crime index, which is constructed in such a way that a higher value stands for a lower perception of (the costs imposed by) organised crime. In this case a negative sign indicates that more severe criminality is associated with greater violation of rights.

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[16] It is well known that the marginal effect of a given covariate in ordered probit estimation is a function of the value and the sign of the estimated coefficient as well as of the value and sign of the estimated cut off points. There is therefore more than one possible set of marginal effects, depending on the scale of the dependent variable. For reasons of substance, as well as of space and conciseness, we have chosen here to report and comment on only the marginal effects for the severest violations of rights, i.e. the increase or decrease in the probability of suffering the worst restrictions. However, the coefficients reported in the appendix give a more complete account of the results, and it can be easily verified that the sign and significance of coefficients generally coincide with those of the marginal effects we have selected for comment.

Table 2. Ordered Probit Estimates of the indicators of rights violation (Marginal effect on the highest degree of violation).

	Seriousness of abuse		Restrictions to							
			access to medical care		freedom of movement		use of condom		choice over sexual services	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Work location										
Bar_nightclub	-0.04	-0.03	0.03	0.03	0.12 ***	0.05	0.00	0.00	-0.03	-0.02
Escort	0.02	0.00	0.05	0.06	0.22 ***	0.14 **	0.00	0.00	-0.19 *	-0.19 **
Hotel_motel	0.10 *	0.08	0.04	0.04	0.21 ***	0.10 **	0.02	0.02	0.04 ***	0.04 ***
Massage_parlor	-0.03	-0.03	0.20 ***	0.18 ***	0.23 ***	0.21 ***	0.03	0.05 **	0.02 ***	0.02 ***
Private_apartment	0.25 ***	0.27 ***	0.13 ***	0.13 ***	0.14 ***	0.10 **	0.04 **	0.06 ***	-0.02	-0.02
Street	0.22 ***	0.18 ***	0.12 ***	0.10 **	-0.06	-0.13 ***	-0.01	-0.01	-0.01	-0.01
Country of work										
Albania	0.11 *	0.03	-0.33 ***	-0.26 ***	-0.14	0.00	0.06 *	0.06 **		
Belarus	0.25 ***	0.20 ***	0.19 ***	0.24 ***	-0.02	-0.04	-0.02	-0.01	0.01	0.01
Bulgaria	-0.27 ***	-0.30 ***	-0.40 **	-0.28	-0.05	-0.11	-0.02	-0.02	-0.08	0.01 ***
FYROM	0.01	-0.02	0.07	0.15 ***	0.10	0.12 *	0.05	0.08 *	-0.19	-0.19
Italy	0.18 ***	0.17 ***	0.18 ***	0.26 ***	-0.12 **	-0.07	-0.03 ***	-0.03 **	0.00	0.00
Moldova	0.07	0.06	0.00	0.07	-0.03	-0.04	0.19 ***	0.21 ***	-0.16 *	-0.24 **
Serbia and Montenegro	-0.01	-0.05 *	-0.17 ***	-0.08 **	-0.10 *	-0.12 ***	0.07 ***	0.08 ***		
Turkey	0.09	0.08	0.08	0.10	-0.06	-0.13 **	0.01	0.01	0.00	0.01 *
Ukraine	0.21 ***	0.18 ***	0.15 **	0.22 ***	0.24 ***	0.20 ***	0.17 ***	0.20 ***	0.03 **	0.02
Control variables										
Crime Index	0.04	0.04	-0.02	0.01	-0.03	-0.01	0.03 **	0.03 ***	-0.01	-0.01 *
Age	0.00 **	0.00	0.00	-0.01 ***	0.00	0.00	0.00	0.00	0.00	0.00
Education	-0.01	-0.01	0.02 **	0.03 ***	0.00	0.00	0.00	0.00	0.00	0.00
International trafficking	-0.23 ***	-0.23 ***	0.00	-0.02	0.01		-0.02 *	-0.02 *	-0.01	-0.01
Knew she had been sold	0.03				0.04		0.00	0.00	0.02 *	
Self reported to IOM					0.01		0.01			
Recruiter of own nationality							-0.01		0.03 *	
Recruited by friend	0.06 **				0.02					
Perceived economic condition of own family	-0.02		-0.06 ***		0.00	-0.01	-0.01		0.00	
National of Former Soviet Union countries					-0.01		-0.06 **			
National of Central and Eastern European countries							-0.04 ***			
Was promised work as entertainer					-0.16 ***		-0.01 *			
Was promised domestic work					0.05					
Was a student prior to departure					0.01					
Lived with family prior to departure					0.06 *					
Recruiter was a woman					-0.04					

*Note: Robust standard errors; ***significant at 1%,** significant at 5%,,* significant at 10%. Model 1: control variables selected using Classification Trees, 10 score of importance threshold; Model 2: control variables selected using Classification Trees, 20 score of importance threshold.*

The overall finding is that the target covariates – country and location of work – are very often significant, which we take as evidence in support of our working hypothesis (Section 2). In fact, location and country of work appear to be more relevant than supply side factors to the pattern of violation of rights.

Country of work. Country of work matters appreciably. Among the Eastern European countries, which are also the main source of trafficked women, Ukraine records the worst pattern of rights violation. The country is associated with a statistically significant increase in the probability of the most severe abuses and most serious reductions in the freedom of movement, choice of services, access to medical care and permission to use condoms. Down the list of the countries, we find that Belarus and Albania, alongside Italy, are significantly associated with increased probability of the worst restrictions on important rights. All three of these countries record a positive and significant marginal effect in at least two cases: severity of abuse and of restrictions on the use of condom for Albania; severity of abuse and of restrictions on access to medical care for Italy and Belarus. Italy and Albania, however, partly off-set these effects: the former by increasing the chances of not experiencing the worst restrictions to freedom of movement and the use of condoms; the latter by improving the chances of accessing medical care. Surprisingly perhaps, Serbia and Montenegro together with Bulgaria are the least worse countries in the group. Specifically, the former associate with lower probabilities of severe restrictions on access to medical care and of limitation on freedom of movement; there is also some evidence, albeit weak, of a lower incidence of serious abuse. At the same time, working in Serbia and Montenegro significantly reduces the chances of being able to use condoms regularly, or even sometimes. For the remaining countries the results are less clear–cut, either because statistical significance is below the conventional threshold (the clearest case in point being Turkey) or because the signs are not consistent across the two estimation models (e.g. for seriousness of abuse in the Former Yugoslav Republic of Macedonia) or both.

There is evidence that what is being captured by country effects also stems from the nature and strength of the criminal networks which control trafficking in the country. For example, it is not surprising that Italy and Albania – more the former than the latter – should be associated with higher risks of severe abuse since it is well known that Albanian pimps have traditionally used a combination of romantic engagement and violence to control 'their' women (Kaye 2003, p.20). Similar reasoning may apply to Italy, where Albanians are among the dominant groups of traffickers, although they operate under the aegis of local organised crime (Becucci 2006, p.41). The sensitivity analysis that we conducted, but do not report here, corroborates these indications. If the country dummies are included in the estimation, statistical significance for the crime index is confined to restrictions on the use of condoms, and it bears the unexpected positive sign. If, however, the country dummies are dropped from the estimation, the sign for the crime index turns negative in four out of five cases – thus indicating a deterioration of rights when criminal network are stronger - and gains significance in three of these cases (restrictions on access to medical care, freedom of movement, and choice of services).

Country dummies may also capture the effect of local legislation – on migration, prostitution, or crime – or the culture of the local clientele. For example, our findings that trafficked women working as prostitutes in Serbia are less exposed to severe abuse or restrictions to access to medical treatment may be due to the fact that a large part of the clients recorded in our dataset for Serbia are UN soldiers in Kosovo, who are likely to care about reputation and health more than 'sex tourists' do. The presence of a military base also tends to create a stable demand for sex services. The 2005 IOM report on trafficking states that trafficked women in Kosovo were regularly paid between 200-300€ per month in 2003-4. Regularity, however, may have entailed more pressing demands for condom free services.

In other cases, the country effects may capture the influence of prevailing cultural values. According to a survey conducted by the IOM (2006), nationals of Belarus and Ukraine

consider trafficking in human beings to be less important that do the nationals of the three other large source countries in the survey – Bulgaria, Romania and Moldavia. Lower awareness of, and sensitivity to, human trafficking often means a higher tolerance of rights violations; or it may simply foster ignorance about such violations and thus reduce the pressure on traffickers.

Whilst the statistical pattern of rights violations clearly differs across countries, it is beyond the scope of our data and of this paper to exactly identify the specific factors involved. The very existence of country patterns, however, points to the general conclusion that no country can be considered consistently 'good' or 'bad' to work in. Moreover, richer or more developed countries do not appear to consistently favour better working and living conditions for women trafficked for sexual exploitation, as the case of Italy illustrates.

Working location. Our second and perhaps more important finding is that the most severe restrictions of rights are associated with trafficked women working in secluded places other than bars and night-clubs, and not with those on the street. The worst working locations in this respect are private apartments alongside massage parlours and saunas. Working in massage parlours tends to reduce freedom of movement, access to medical care, use of condoms and choice over services, the marginal increases in the probability of the most severe violations being larger for freedom of movement and access to medical care. The only encouraging aspect is that working in massage parlours does not especially favour the worst forms of physical or psychological abuse, although the evidence is weak in this respect (the marginal effect is negative but not significant). In contrast, the risk of severe abuse significantly increases for those working in private apartments, and so do the chances of serious restrictions on access to medical care, on freedom of movement, and on the use of condoms. In some respects, selling sexual services on the street brings a relative improvement: although the risk of abuse and restrictions on access to medical care are almost as bad as in

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private apartments or hotels, street work may improve freedom of movement,[17] and it does not deteriorate the chances of using of condoms or being able to choose services (both coefficients are negative and not significant).

The least worse working locations are bars and nightclubs, since working in these locations increases the probability of no freedom of movement but has no strong influence on other restrictions. Nor does the small group of escort girls record a statistically significant deterioration in any of the rights except for freedom of movement. Moreover, escort girls appear to enjoy more freedom of sexual services, as might be expected for this up-market segment of the sex trade.

The overall picture is one in which the up-market segment of escort girls and trafficked sex workers in bars and night clubs benefit from less systematic restrictions of rights. In down-market segments, however, secluded workplaces are, on the whole, more at risk of severe restrictions than is working on the street. This latter result is fairly robust to changes in model specification, as can be seen from Table 2 by comparing signs and significances of the marginal effects in Model 1 and Model 2 of working in hotels-motels, saunas and massage parlours and private apartments compared to working on the streets.

On the basis of our data, we are not able to ascertain whether and to what extent the greater risk of rights violation for lower-market segment workers in secluded locations is off-set by higher earnings, and we have no strong reason to believe that this may be the case. Our findings therefore support the contention that measures against street prostitution may not be conducive to improving the conditions for trafficked women in the sex industry (Anderson and O'Connell Davidson 2003, p.43)

Character and organization of trafficking. The results for the control variables included in our estimations provide further evidence that the character and organisational structure of criminal networks have an independent impact on the overall pattern of rights violation. For

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[17] Caution is necessary because the coefficient is negative and significant only in Model 2.

majority of the indicators of rights, women trafficked outside their own countries are better off, or at least no worse off, than women trafficked in their own country: the sign of the reported marginal effect for the international trafficking dummy is negative across the five equations, with the exception of freedom of movement, and this ameliorative influence is high and significant in the case of abuse, and weakly significant in case of condom use. One likely explanation is that traffickers enjoy a higher degree of complicity with national clients and, most importantly, national law enforcement agencies[18]. This exposes the fallacy of advocating restrictions on migration in destination countries on the ground that they help contain the worst form of sexual exploitation, since women may face even greater risks if they are trafficked locally.

Being promised entertainment work by the recruiter, as opposed to domestic or other types of work, helps to some (limited) extent – notably in relation to freedom of movement and use of condoms – but interpretation is not straightforward. One possibility is that the variable captures a familiarity with the entertainment business that gives the victim greater bargaining capacity. Finally, in the same way that involvement in national trafficking may be worse than involvement in international trafficking, being recruited by a person with the same nationality or by a friend often does not matter; but when it does it does not help to improve respect for rights.

Personal characteristics and socioeconomic background. Our last notable finding is that socio-economic background and demographic characteristics exert weak and occasionally unexpected influences, as already noted. Being older appears to increase risks rather than enlarging opportunities. The exception is access to medical care, and this is not implausible, because being older raises awareness about and the frequency of medical hazards, thereby increasing the pressure on traffickers to concede care. Education has an unexpectedly weak

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[18] Since about two thirds of all internal trafficking is accounted for by Belarus, Ukraine and Moldova, this particular finding could be partly driven by some factors common to these countries such as poor public awareness that favours this type of complicity.

influence, given the emphasis placed on this variable in economics or sociology: signs vary but significance obtains only for access to medical care. In this instance, moreover, the sign is unexpected, since education appears to reduce the chances of access rather than improving them. This is in line with what Di Tommaso et al. (2008) found using the same data set. According to their results, education does not improve the 'welfare' of women trafficked for sexual exploitation, the most important indicator for welfare in their case being access to medical services. In order to account for this finding, they report a strong correlation between earnings and education among the very few respondents that disclosed their earnings to the interviewer (235 observations), and they argue that educated women are more valuable to traffickers, and are therefore more closely controlled. This explanation is not inconsistent with our overall findings, but it does not rule out alternative reasons.

The impacts of the remaining indicators of socio-economic background are equally weak, but more in line with a priori expectations. The consistently negative sign for the marginal effect of perceived economic status of the original family suggests that coming from a non-poor background lowers the risk of the worst violations, although statistical significance obtains only for access to medical care. We may conjecture that a better family background favours recruitment into less brutally exploitative segments of trafficking. The opposite holds for knowledge of having been sold, which can be viewed as an indicator of a very poor socio-economic background, since only families in critical circumstances openly sell their members. In particular, trafficked women aware of having been sold report a statistically significant reduction in freedom of choice over services, which is hardly surprising in the case of someone with very limited, if any, bargaining power.

Selection bias. How far are these results distorted by selection bias? Recall that we checked for selection bias by using the information on whether the assisted victim had been brought to the IOM by law enforcement agencies and NGOs or whether she had applied voluntarily. At the covariate selection stage, this variable satisfied the 10 score importance

criterion just twice - for restrictions on freedom of movement and on the use of condoms - but in both cases failed to gain significance when used as covariate. This is the first indication that the problem of self-selection is less important than might appear. To further test this indication, we re-run Model 1 on the sub-sample of victims reported to the IOM by law enforcement agencies and NGOs, which is a larger sample than that of victims self-reporting to IOM for assistance, but nevertheless entails a considerable reduction in sample size (36% on average). None of the coefficients recording significance in the complete sample changed sign. The most notable change in results concerns statistical significance, not signs, and is largely due the interplay between a smaller sample size and a different pattern of missing values. On the whole, the changes are such that they do not alter the findings from the complete sample.[19]

6. Summary and policy implications

In this paper we have investigated the factors that determine the frequency and severity with which a set of five basic rights are violated among women trafficked for sexual exploitation. To this end we have used a large collection of interviews administered by the IOM to women granted assistance to exit from trafficking.

We argue that the seemingly clear opposition between fully consenting prostitutes and women forced into prostitution by traffickers is sterile for analysis of the actual working conditions of both these groups of women. More fertile criteria for analysis are the woman's degree of agency and her capacity to influence the terms of exchange. Prostitution and trafficking can be placed in a continuum of contractual arrangements rather than being placed at the extremes, and both these criteria are relevant to identifying breaches in this continuum. Since the enforcement of certain basic rights is the precondition for gaining both agency and

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[19] About one tenth of the conventionally significant coefficients in Model 1 fell below the 5% threshold, but almost the same proportion exceeded it. The results are available from the authors upon request.

influence over the terms of the exchange, the actual position on this continuum also depends on the extent to which these rights are enforced.

In fact, analysis of enforcement of five such rights identified by the IOM data source – freedom from abuse, freedom of movement, of choice of services, of use of condoms, and of accessing medical care – shows considerable variability in the degree to which these rights are enforced, with a minority of trafficked women reporting violation of all the five rights, whilst the majority report significant interpersonal variation.

Given sufficient variation in this pattern, we investigate its determinants by using a two-stage procedure combining classification trees analysis and ordered probit regression. The specific hypothesis that we test is that the country and location of work significantly influence the extent to which a given right is (likely to be) violated. We also obtain evidence on the influence of other variables – from the strength of criminality networks in the country of work to aspects of the recruitment process and socio-economic characteristics of trafficked women.

The results corroborate our hypothesis, since location and country of work turn out to be the most significant determinants of rights violation. Supply side factors (the socio-economic characteristics of the women) exert limited influence, whilst the influence of organized crime is not independent of country effects.

We find that, overall, trafficked women working in secluded places other than bars and nightclubs are more at risk of experiencing the worst cases of violation of our five rights than are those working on the streets. The worst locations in this respect are private apartments, followed by massage parlours and saunas, whilst working on the streets brings some (comparative) improvement. The least worse working locations are bars and nightclubs, whilst no clear pattern was found for escort girls.

This has clear implications for legislation designed to induce traffickers to move women in prostitution out of public sight. Whilst women in up-market segments, like escort girls or those working in bars and nightclubs, would not be affected, such a move would heighten the

risk for those in lower segments of the market. This increased risk ought to enter into the cost-benefit evaluation of any relevant legal provision.

We also find that the pattern of violation significantly differs across countries, and some of these differences carry policy implications. In particular, we find evidence that violations are most severe in countries where the population is least sensitive to and concerned about the phenomenon of human trafficking: i.e. more and better quality information helps. Finally, we find that women trafficked internationally are comparatively better off than those trafficked in their own country. We speculate that one contributing factor may be the fact that criminal networks operating outside their country of origin may enjoy less complicity with local clients, local crime groups, or other organizations. This provides evidence against advocating restrictions on migration into destination countries on the ground that they counter the worst forms of sexual exploitation.

Although none of these indications are entirely new, we believe that it is nevertheless important to bring systematic statistical evidence in their support.

References

Anderson, B. and J. O'Connell Davidson (2003). *Is Trafficking in Human Being Demand Driven? A Multi-Country Pilot Study*, IOM Migration Research Series, No. 15, International Organization for Migration, Geneva, Switzerland.

Becucci, S. (2006). *Criminalità Multietnica. I mercati illegali in Italia*, Gius. Laterza&Figli, prima edizione.

Della Giusta, M., Di Tommaso, M.L. and S. Strom (2007). 'Sex, power and reputation: a model of the market for prostitution services', *Journal of Population Economics*, forthcoming.

Dickenson, D. (2006). 'Philosophical Assumptions and Presumptions about Trafficking for Prostitution' in C.L. van den Anker and J.Doomernik (eds) *Trafficking and Women's Rights*, Palgrave Macmillan, New York.

Di Tommaso, M.L., Shima, I., Strøm, S. and F. Bettio (2008). 'As Bad as it Gets: Well Being Deprivation of Sexually Exploited Trafficked Women', *European Journal of Political Economy*, forthcoming.

European Commission (2004). *Report of the Experts Group on Trafficking in Human Beings*. Directorate-General Justice, freedom and Security, Brussels.

Garofalo, G. (2006). 'Towards a Political Economy of Trafficking' in C.L. van den Anker and J.Doomernik (eds) *Trafficking and Women's Rights*, Palgrave Macmillan, New York.

Garofalo (2007). '*Un altro spazio per una critica femminista al 'traffico' in Europa*', Trickster, no.3. Available at: http://www.trickster.lettere.unipd.it/archivio/3_prostituzione/numero/indice.html

ILO (2005). *A global alliance against forced labour*. Global Report under the Follow-up to the ILO Declaration on Fundamental Principles and Rights at Work, International Labour Office, Geneva, Switzerland.

IOM (2005). *Second Annual Report on Victims of Trafficking in South-Easter Europe*, International Organization for Migration, Geneva, Switzerland.

IOM (2006). *Human Trafficking Survey: Belarus, Bulgaria, Moldova, Romania, and Ukraine*, prepared by the GfK Ukraine for the International Organization for Migration, Mission in Ukraine.

Kaye, M. (2003). *The migration-trafficking nexus: combating trafficking through the protection of migrants' human rights*, Anti-Slavery International, London.

Levi-Strauss, C. (1967). *Les Structures elementaires de la parente*, Mounton & Co. Paris-La Haye.

Orfano, I. (ed.) (2002) Article 18: Protection of Victims of Trafficking and Fight against Crime (Italy and the European Scenarios). Research Report. Project 'Osservatorio sull'applicazione dell'art. 18 del D. Lgs. n. 286 del 25/7/1998' – STOP Programme, European Commission – Promoting Organisation: Regione Emilia-Romagna – Co-ordinating Organisation: Associazione On the Road.

Patel, R., Balakrishnan, R. and U. Narayan (2007). 'Explorations on Human Rights', *Feminist Economics*, 13(1), 87-116.

Porter M., Schwab, K. and A. Lopez-Claros (2005). *Global Competitiveness Report 2005-2006 – Policies Underpinning Rising Prosperity*, World Economic Forum, Palgrave: Macmillan.

Rozee D. (1993). "Forbidden or Forgiven? Rape in Cross-Cultural Perspective," *Psychology of Women Quarterly* 17, 499-514.

Tabet, P. (2004). *La grande beffa Sessualità delle donne e scambio sessuo-economico,* Rubettino Editore.

Transparency International (2004). *Transparency International Corruption Index 2004*, Berlin: Transparency International Secretariat. Available at:

http://www.transparency.org/pressreleases_archive/2004/2004.10.20.cpi.en.html

UNODC (2006). *Trafficking in Persons: Global Patterns*. Available at:

http://www.unodc.org/pdf/traffickinginpersons_report_2006ver2.pdf

Van den Anker, C. L. and J. Doomernik (eds) (2007). *Trafficking and Women's Rights*, Palgrave Macmillan, New York.

White, L. (1990). *The Comforts of Home. Prostitution in Colonial Nairobi*, University of Chicago Press, Chicago and London.

Appendix 1.

Table A1. Description of covariates used for the analysis

Covariates	Brief description	% Yes
Target Covariates		
Bar_nightclub	location of work - bar and night club?	0.46
Escort	location of work - escort/call-girl agencies?	0.03
Hotel_motel	location of work - hotels or motels?	0.05
Massage_parlor	location of work - sauna/massage parlors?	0.07
Private_apartment	location of work - private house/apartments?	0.11
Street	location of work - streets?	0.16
Albania	country of work - Albania?	0.08
Belarus	country of work - Belarus?	0.08
Bulgaria	country of work - Bulgaria?	0.04
FYROM	country of work - Former Yugoslav Republic of Macedonia?	0.14
Italy	country of work - Italy?	0.05
Mali	country of work - Mali?	0.03
Moldova	country of work - Moldova?	0.05
Serbia and Montenegro	country of work - Serbia and Montenegro?	0.12
Turkey	country of work - Turkey?	0.04
Ukraine	country of work - Ukraine?	0.07
Control covariates		
Scoring more than 10% importance as predictor of at least one dependent variable		
Crime Index *	Organized Crime Index of World Economic Forum.	3.75
		(0.84)
Age *	age.	23.94
		(5.32)
Education *	highest educational qualification: 0 no education; 1 primary school; 2 secondary school; 3 technical school; 4 high school; 5 college/university.	2.6
		(1.28)
International trafficking	trafficked to outside the country of origin?	0.73
Knew she had been sold	knew that she had been sold in the process of trafficking?	0.56
Self reported to IOM	she herself reported to IOM mission to be freed?	0.32
Recruiter of own nationality	nationality of the recruiter - same as her?	0.81
Recruited by friend	relation with recruiter - friend?	0.29
Perceived economic condition of own family *	0 very poor; 1 poor; 2 standard; 3 well-off.	0.98
		(0.65)
National of Former Soviet Union countries	national of Former Soviet Union countries?	0.54
National of Central and Eastern European countries	national of Central and Eastern European countries?	0.33
Was promised work as entertainer	what was promised - dancer/entertainer work?	0.16
Was promised domestic work	what was promised - domestic work?	0.14
Was a student prior to departure	employment status prior to departure - student?	0.13
Lived with family prior to departure	was she living with family prior to departure?	0.80
Recruiter was a woman	gender of the recruiter - female?	0.46
Excluded		
Married	marital status - married?	0.11
Single	marital status - single?	0.69
Divorced, separated or widow	marital status - divorced/separated/widow?	0.18
Mother	Does she have children?	0.34
Unemployed prior to departure	employment status prior to departure- unemployed?	0.59
Previous work experience	does she have any previous work experience?	0.64
Recruited by a stranger	relation with recruiter - stranger?	0.51
Recruited through personal contact	how recruited - through personal contact?	0.89

Note**:** * the 3rd column stands for mean (standard deviation) for continuous or ordered variable.

Table A.2 Ordered Probit Estimation of indicators of rights violation (coefficients).

| | Seriousness of abuse | | Restrictions to | | | | | | | |
| | | | access to medical care | | freedom of movement | | use of condom | | choice over sexual services | |
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Work location										
Bar_nightclub	-0.10	-0.08	0.09	0.09	0.29 ***	0.12	-0.01	-0.05	-0.52	-0.43
Escort	0.06	-0.01	0.12	0.17	0.58 ***	0.37 *	0.03	0.03	-1.57 ***	-1.71 ***
Hotel_motel	0.27 *	0.23	0.10	0.11	0.56 ***	0.27 **	0.17	0.19	7.68 ***	8.60 ***
Massage_parlor	-0.09	-0.09	0.59 ***	0.51 ***	0.62 ***	0.56 ***	0.29 *	0.36 ***	6.11 ***	7.18 ***
Private_apartment	0.65 ***	0.71 ***	0.37 ***	0.35 ***	0.36 **	0.25 **	0.36 ***	0.44 ***	-0.49	-0.48
Street	0.58 ***	0.48 ***	0.34 **	0.26 **	-0.15	-0.31 ***	-0.11	-0.11	-0.29	-0.28
Country of work										
Albania	0.29 *	0.10	-0.85 ***	-0.66 ***	-0.35	0.00	0.45 **	0.46 ***		
Belarus	0.66 ***	0.54 ***	0.56 ***	0.72 ***	-0.05	-0.11	-0.20	-0.16	0.47	0.21
Bulgaria	-1.20	-1.61 **	-1.06 *	-0.73	-0.12	-0.26	-0.24	-0.23	-0.89	7.44 ***
FYROM	0.04	-0.06	0.18	0.43 ***	0.25	0.32 *	0.44 *	0.57 **	-1.34 **	-1.46 **
Italy	0.48 ***	0.45 ***	0.55 ***	0.81 ***	-0.29 **	-0.18	-0.49 *	-0.33 *	0.07	0.02
Moldova	0.18	0.17	0.00	0.18	-0.08	-0.10	1.05 ***	1.08 ***	-1.31 ***	-1.71 ***
Serbia and Montenegro	-0.04	-0.15 *	-0.43 ***	-0.21 **	-0.25 **	-0.29 ***	0.55 ***	0.59 ***		
Turkey	0.24	0.23	0.23	0.27	-0.16	-0.34 *	0.07	0.06	-0.06	0.39
Ukraine	0.56 ***	0.49 ***	0.42 **	0.63 ***	0.64 ***	0.53 ***	1.00 ***	1.06 ***	1.00 **	0.64
Control variables										
Crime Index	0.13	0.12	-0.05	0.04	-0.07	-0.02	0.30 **	0.34 ***	-0.14	-0.32 *
Age	0.01 **	0.00	-0.01	-0.02 ***	0.01	0.01	0.00	0.00	0.01	0.00
Education	-0.03	-0.03	0.07 **	0.07 ***	-0.01	0.00	0.04	0.02	-0.10	-0.13 *
International trafficking	-0.63 ***	-0.63 ***	-0.01	-0.04	0.02		-0.22 *	-0.20 *	-0.24	-0.26
Knew she had been sold	0.09				0.11		-0.03	-0.04	0.38 **	
Self reported to IOM					0.02		0.07			
Recruiter of own nationality							-0.14		0.50 **	
Recruited by friend	0.18 **				0.06 **					
Perceived economic condition of own family	-0.06		-0.17 ***		-0.01	-0.03	-0.06		-0.11	
National of Former Soviet Union countries					-0.03		-0.52 ***			
National of Central and Eastern European countries							-0.56 ***			
Was promised work as entertainer					-0.40 ***		-0.14			
Was promised domestic work					0.13					
Was a student prior to departure					0.01					
Lived with family prior to departure					0.15 *					
Recruiter was a woman					-0.09					
Log likelihood	*-1300*	*-1800*	*-1447*	*-1622*	*-1088*	*-1683*	*-1107*	*-1292*	*-154*	*-182*
No. observations	*1652*	*2222*	*1700*	*1863*	*1350*	*2033*	*1421*	*1631*	*483*	*581*

Note: *Robust standard errors; ***significant at 1%,** significant at 5%,,* significant at 10%. Model 1: control variables selected using Classification Trees, 10 score of importance threshold; Model 2: control variables selected using Classification Trees, 20 score of importance threshold.*

Appendix 2.
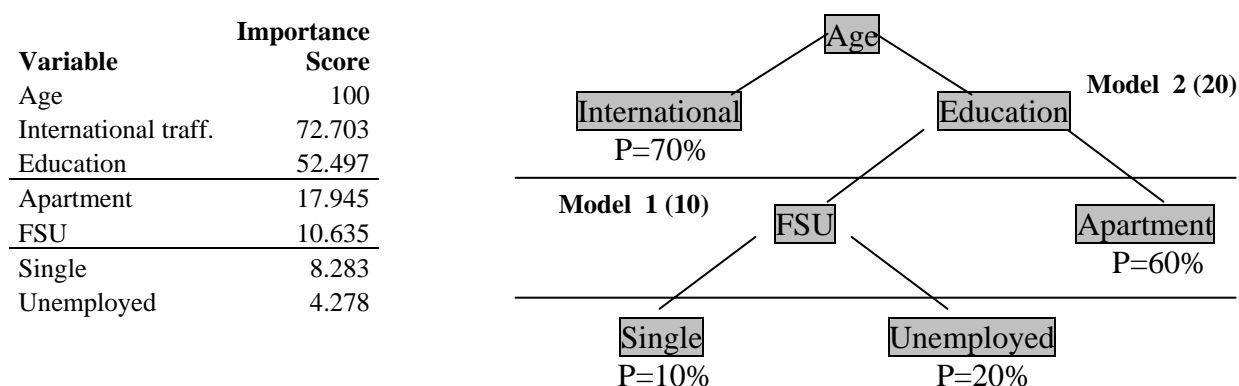
Selection of explanatory variables

The Classification Tree[20] (CT) technique can be used to identify and rank the potential predictors in the order of their importance to explain the respect /violation of rights. In what follows, we provide an example of how this is done using variables taken from the IOM data set. For the sake of simplicity, however, we keep the number of variables at a minimum.

The CT analysis represents a binary recursive partitioning, as presented in Fig. A1. Assume the dependent variable 'Freedom of movement' is binary and takes value '0' if no restriction is imposed and '1' otherwise. Suppose that we need to rank the importance of seven variables in the data set as predictors of 'Freedom of movement': education, age, private

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[20] The standard name of the technique is Classification and Regression Tree Analysis, which reduces to Regression Tree in the case of the continuous dependent variable and to Classification Tree if the dependent variable is categorical by nature. The latter is exactly our case; hence in the paper we use the name 'Classification Tree (CT) procedure'.

apartment (location of work), Former Soviet Union (FSU, country of origin), international trafficking (as opposed to internal), single (marital status), unemployed (labour market status prior to departure). The variables that appear to be most important, as shown in the table below, are placed on the top of the decision tree. These are, in descending order of importance, age, education, type of trafficking followed by country of origin, location of work, marital and previous labour market status.

Figure A1. Tree presentation of factors that influence the restrictions on freedom of movement

Variable	Importance Score
Age	100
International traff.	72.703
Education	52.497
Apartment	17.945
FSU	10.635
Single	8.283
Unemployed	4.278

Suppose that the value of 25 for the variable age splits the observations into two subgroups, that of individuals aged 25 years or less to the left of the original node, and that of individuals older than 25 years to the right. According to Figure A1, being younger than 25 and being trafficked internationally predicts that the person will experience restrictions on the freedom of movement with the probability of 70%. It is also evident from the figure that what matters for the older group is education, not the type of trafficking. Being older than 25, having a higher level of education, and working in a private apartment leads to restriction on freedom of movement in 60% cases. Other patterns can be similarly identified down the tree.

It should be noted that the above example is hypothetical. It is a simplification of the analysis of the paper in several important respects. First, the dependent variable is assumed binary in the example, whereas the paper deals with dependent variables which are ordered, allowing for three categories. Second, the number of variables is kept at a minimum for the

purpose of graphical exposition, whilst the analysis in the main part of the paper uses all variables from the IOM data set that report less than 50% missing values. Third, the example uses a single Classification Tree due to the fact that the dependent variable is binary. Our actual analysis resorts to the "Tree boost" method, which generates a large number of trees simultaneously in order to determine the predictive power of covariates.

One of the advantages of DTREG is its procedure for replacing missing values. It uses a technique involving surrogate splitters to estimate the values of predictor variables with missing values. Surrogate splitters are predictor variables that are less good at splitting a group than the primary splitter but yield similar splitting results by mimicking the splits produced by the primary splitter. When a row of observations is encountered that has a missing value on the primary splitter, DTREG searches the list of surrogate splitters and uses the one with the highest association with the primary splitter that has a non-missing value for the row. This feature of the program makes it possible to analyze the problematic dataset at hand, where the percentage of missing for certain variables is extremely high.