INTERNAL VERSUS INTERNATIONAL MIGRATION AND THE ROLE OF MULTIPLE DEPRIVATION
Some evidence from India

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This study disentangles the concept of relative deprivation by distinguishing feelings of individual and collective relative deprivation as sources of individual aspirations. Both concepts are then operationalised and empirically tested with regard to their relative importance in migration decision-making. Based on data from the National Sample Survey in 2008, two factors turn out to be relevant in understanding the Indian migration pattern. First, individual and collective relative deprivations are both strong predictors for out-migration, but only for short-distance, intra-state movements. The likelihood of out-migration towards international destinations is significantly higher for households with lower levels of individual and collective relative deprivation. Second, leaving aside the effects of relative deprivation, absolute deprivation plays a rather ambivalent role: while economically better-off households have a higher propensity for sending (primarily male) migrants to distant inter-state and international destinations, shorter distance out-migration is mainly dominated by female migrants stemming from poorer households.

KEYWORDS: relative deprivation; internal and international migration; India

Introduction[1]

> The links between internal and international migration have recently begun to attract attention at the international policy level, especially in response to concerns by developed countries over migrant flows. Important questions are whether today's internal migrants are tomorrow's international migrants; whether international migration and internal migration are substitutes for each other; and *whether internal and international migrants share the same profile*. Needless to say, the answers depend very much on the local context and thus can only be arrived at through location-specific case studies. (International Organization for Migration (IOM) 2008, p. 181)

The study of internal and international migration is dichotomous, in the sense that most research is either focused on one or the other. This distinction might be justified if the two subjects did not have much in common. This, however, is not the case, since the underlying forces initiating and perpetuating both types of movements are very similar and differ predominantly in their relative weight. A core difference, however, is to be seen in the role of the state and regulations to control international flows of people. Besides

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this, internal and international migration share a very similar set of economic, social, political and cultural drivers that influence the migration decision-making process of individuals and groups such as households or kinship groups (King & Skeldon 2010). This case study provides a location-specific analysis of the Indian internal and international migration pattern. The primary focus is the question of whether internal and international migrations share a similar set of determinants (King & Skeldon 2010). Skeldon (2006) provides an insightful account on various inter-linkages between the internal rural–urban migration and the international migration pattern in Asia. For instance, the federal state of Kerala has, for decades, played a significant role as a migration hub for migrants from neighbouring (and other) Indian states, who are refilling the gaps in the labour force left by skilled and semi-skilled workers leaving for the Gulf (Czaika & Villares 2012; Zachariah & Rajan 2005). Therefore, the purpose of this paper is to analyse the drivers and patterns of internal and international migration in contemporary India in order to answer the following questions: why do some individuals (or whole households) decide to leave their place of residence, and which factors determine the decision about the internal or international destination? What is the common set of drivers of internal and international migration, and where are the differences? In particular, I analyse the role of absolute and relative deprivation in the out-migration decision-making process.

Socio-economic factors play a decisive role in explaining the migration decisions of individuals and households, as well as in driving aggregate migration flows. Availability of economic, social and 'human capital' resources enables individuals and households to fulfill their desire to migrate. This desire for migration is due to factors that create aspirations to migrate in order to change one's life significantly. However, what are these factors that generate these migration aspirations? This paper focuses on one important origin of these aspirations by arguing that social comparisons among individuals or households belonging to the same group of people are generating individual and/or collective feelings of relative deprivation. Individuals identify themselves with one or more social groups to which they belong, and in which social comparisons regarding status and well-being are made. These social comparisons may cause feelings of relative deprivation even if absolute deprivation is not a primary issue. However, to what extent individuals (or households) identify themselves with various social groups is, *a priori*, unclear.

Liebig and Sousa-Poza (2004) have found some empirical evidence for the hypothesis that countries with a more unequal income distribution tend to have higher migration rates. Stark (2006) has provided the micro-foundation for this structural relationship, arguing that relative deprivation of individuals or households is the behavioural link between economic inequality and migration propensity. Hereby, income inequality within a country generates feelings of relative deprivation, which induce a higher emigration propensity among those most deprived. Accordingly, household members decide to migrate not necessarily only to increase their expected income, but also to improve their relative position with respect to a specific reference group (Stark & Taylor 1989). However, and to the best of my knowledge, the migration literature only considers relative deprivation with a country's overall population as the relevant reference group, which assumes that people compare their personal well-being with that of the rest of the country's population, e.g. Stark (2006) and Stark *et al*. (2009). The decisive question is, however, whether this is appropriate, and if not, *which* societal reference categories are relevant in a societal reality of multiple belongings.

In this paper, I will refine the concept of relative deprivation by applying it within and across various societal groups. For the following three reference categories, I test the relative importance of intra-group and inter-group inequality in explaining out-migration propensities. Hence, I investigate whether the decision about out-migration is influenced by 'deprivation-driven' migration aspirations. Hereby, the concept of relative deprivation is refined in two important, but so far, neglected, aspects: first, I distinguish between feelings of relative deprivation that are a consequence of the relative position of an individual within a social group, and those stemming from the relative position of the social group with which an individual identifies. We assume that the combination of these two sources causes feelings of 'double relative deprivation'. Second, multiple societal belongings, i.e. the simultaneous identification with various social groups, e.g. religious denomination, ethnic group, social class and language group, multiplies the sources for 'double relative deprivation' and therefore, creates feelings of multiple relative deprivation. Finally, these two refinements of the relative deprivation concept are tested for the case of India regarding their relevance in explaining the migration decision-making of households. Due to the availability of recent household data in the National Sample Survey (NSS), I can test the implications of multiple relative deprivation for two central aspects in any migration decision-making process: first, do the members of relatively deprived households have a higher out-migration propensity, and second, does multiple relative deprivation in combination with absolute deprivation have a significant influence on the choice of destination?

The remainder of this paper is structured as follows. The next section outlines the conceptual framework of multiple relative deprivation, its relation to absolute deprivation, and their simultaneous ('multiple deprivation') influence on the migration decision-making of individuals and households. The section after next describes the Indian pattern of migration by exploring our sample; in that section, I develop the methodology used for the empirical analysis of the relevance of relative deprivation in driving household decisions on the out-migration of household members. This will be followed by a section that provides and interprets the empirical results. The last section summarises and concludes.

Multiple Deprivation, Aspirations and Migration

Migration theory provides a whole host of possible determinants of internal and international migration. Massey *et al*. (1993, 1998), Ghatak *et al*. (1996), and King and Skeldon (2010) provide some excellent reviews on the theoretical drivers of internal and international migration. This paper draws on some insights of migration theory regarding: (i) the role of households in the decision-making process; (ii) the role of capabilities and aspirations of individuals and households; (iii) the spread of risks by diversifying income sources and smoothing inter-temporal income and consumption among individuals and household members; and most importantly, (iv) the role of perceptions of relative deprivation.[2]

Basically, relative deprivation can be defined as the outcome of social comparisons made between personal well-being and the well-being of other individuals within a predefined reference group or category (Runciman 1966). Yitzhaki (1979, 1982) integrates this concept into the economic inequality literature by asserting that individuals feel deprived when they compare their economic well-being with the living standards of wealthier people. Stark (1984) has identified individual relative deprivation as a determinant for

human migration, which can even explain migration in the absence of significant spatial income differentials, which are essential for neoclassical migration models (Harris & Todaro 1970; Sjaastad 1962).

Relative deprivation is a source for individual and collective discontent, but it is not necessarily based on inter-*personal* comparisons. In many cases, it is relative to an (explicit or implicit) norm or standard of what is considered as adequate, e.g. Mark and Cook (1979). This idea of a discrepancy between aspirations and achievements, or between the current standard of living individuals 'enjoy' and the standard of living they believe they deserve, is at the heart of relative deprivation theory and, to a large extent, explains discontentment and some form of individual and collective action (Brown 2000).[3] The importance of aspirations as a precondition for the migration decisions of individuals and entire households is well-documented (De Haas 2010). However, the complexity of aspiration formation and the role of, for instance, information, media, social networks and education, in rising aspirations are not yet fully understood. This paper points to the importance of two economic factors as potential sources for (life and migration) aspirations: first, feelings of relative deprivation as the consequence of intra- and inter-group comparisons regarding economic well-being can increase aspirations, and second, increasing availability of economic resources can not only enhance migration capabilities by loosening economic constraints, but can also increase the overall individual capacity for aspirations (Appadurai 2004). Obviously, individual aspirations are far too complex to be explained by economic factors alone; nevertheless, it is argued that relative (and absolute) economic well-being may play a decisive role in the formation of aspirations and thus, in migration decision-making processes.

Beyond perceptions of relative deprivation based on inter-personal comparisons of individuals within a (pre-defined) social reference group, there may also be another source for feelings of relative deprivation, namely the relative economic well-being of the entire social group to which an individual may belong. Runciman (1966) labels this phenomenon 'fraternalistic' deprivation, in the sense that the group that an individual (or household) identifies with is deprived *either* compared to a desired standard *or* to the relative well-being of other social (peer) groups in a pre-defined social reference category. Therefore, I distinguish two types of relative deprivation: *individual relative deprivation* (IRD) and *collective relative deprivation* (CRD). According to Pettigrew *et al*. (2008), we can distinguish four types of individuals: those with a high IRD and high CRD, those with a low IRD and low CRD, those with a high IRD but low CRD, and finally, individuals with low IRD but high CRD. Consequently, people may perceive either 'double relative deprivation', 'double relative gratification', or rather have 'mixed feelings' about their levels of personal and collective relative deprivation, depending on their individual well-being within their social (peer) group and the relative well-being of the respective social group in the broader societal reference category. For example, an individual or household may feel relatively deprived within her ethnic group, but at the same time, the respective ethnic group is better-off, in terms of the average well-being of its members, than the other ethnic groups in a society. Typically, it is members of relatively deprived groups who also feel personally most deprived.[4]

Similar to Runciman's (1966) findings on the causes of social unrest (he observes that participants in insurgencies are seldom the most deprived individuals), I can also state that it is seldom the absolute poorest who decide to migrate, either due to various resource constraints, e.g. Martin and Taylor (1996), or their lack of 'capacity to aspire' (Appadurai

2004). Stark and Yitzhaki (1988) and Stark and Taylor (1989) were the first to find that the more an individual is deprived relative to the rest of the society (or to a pre-defined reference group), the higher the propensity to migrate. However, this is only true as long as absolute deprivation does not constrain migration capabilities. In their study on the implications of relative deprivation for the emigration of Mexicans to the USA, Stark and Taylor (1991) control for absolute income constraints and find that IRD drives Mexican–US cross-border movements, but not internal migration in Mexico.

Research on the linkage between relative deprivation and migration has, so far, ignored the fact that individuals may not only experience IRD, but at the same time, feel collectively disadvantaged, which makes so-called 'double relative deprivation' a reality. Thus, IRD based on intra-group comparisons and CRD as a consequence of inter-group comparisons seem to be distinct and indispensable factors in a migration decision-making process (Czaika 2011). Obviously, out-migration is only one of many possible behavioural strategies that deprived individuals or entire groups may consider for coping with a personally or collectively unsatisfying (economic) situation.[5] Individuals may 'treat' their feelings of relative deprivation by considering out-migration or *in situ* adaptation.[6] The latter option implies that instead of 'physically' leaving the context of (absolute and relative) deprivation, many individuals may choose other coping strategies such as changing norms, standards and reference groups, or simply mental disengagement (Carver *et al*. 1989). These linkages between relative deprivation and behavioural coping strategies are left for future research.

A perennial problem in relative deprivation theory is the inability to specify, *a priori*, who compares with whom (Walker & Smith 2000). Social comparisons provide the means by which people assess their own position within their social group, as well as the 'standing' of their group. Thus, whether and to what extent these social comparisons lead to perceptions of relative deprivation depend on the (economic) situation of the entire reference group, that is, on the well-being of the peers individuals compare with. However, the definition and identification of reference (peer) groups is equally crucial and complex. In social psychology, a heuristic approach assumes that individuals tend to compare with 'similar others' (Brown 2000, p. 244). For the case of India, and constrained by the lack of explicit (subjective) information about peer groups, I formalise the two types of relative deprivation as follows: (i) inter-household comparisons *within* the same social reference group; and (ii) inter-group comparisons *across* other social groups within the same societal reference category. Hereby, household *i*'s level of IRD with respect to other households within the same social reference group *r* is defined as:

$$IRD_{i,r}(c_i) = \int_{c_{i,r}}^{c_{i,r}^{max}} [1 - F(z)]dz \tag{1}$$

with c_i denoting annual consumption expenditures of household *i*, and $F(z)$ representing the cumulative distribution of household consumption levels within a social reference group *r*. Beyond IRD within social groups, I also take into consideration the relative position of a social group compared to all other social groups in the same societal category. This may create feelings of CRD for household *i*, which are defined according to:

$$CRD_{i,r}(\bar{c}_r) = \int_{\bar{c}_r}^{\bar{c}_r^{max}} [1 - F(z)]dz \quad with \quad \bar{c}_r = \frac{1}{n_r} \sum_{i \in r} c_{i,r.} \tag{2}$$

Hereby, I assume that each household *i* that belongs to social group *r* identifies with the economic well-being of the entire group, proxied by the average annual household consumption $\bar{c}_r$, and compares with the average consumption levels of all other (wealthier) social groups within the same societal reference category. In the case of India, the NSS allows me to distinguish three different societal reference categories $z \in Z = \{\text{political entity, social class, religion}\}$, with each societal category being subdivided into a number of social groups r_z, i.e. 35 federal states, four social classes and seven religious groups.

Beyond feelings of individual and collective relative deprivation within each societal category, I further hypothesise that people generally belong to and simultaneously identify themselves within and across all three societal categories. This implies, for instance, that people may not only feel relatively deprived because of an inferior economic status within their religious group, and a collectively deprived economic situation of the entire religious group compared to other religious groups ('double relative deprivation'), but at the same time, people may also live in a relatively deprived state (political entity) and/or belong to a relatively deprived social class. To capture this reality of multiple belongings, I further refine the concept of relative deprivation by analysing the relevance of 'multiple relative deprivation', i.e. double relative deprivation in more than one societal category, in further nurturing aspirations and thus, influencing the out-migration decision of individuals. Figure 1 illustrates these conceptual refinements of relative deprivation in combination with the concept of absolute deprivation.

All dimensions of multiple deprivation, i.e. multiple relative deprivation and absolute deprivation, are assumed to have aspirations-generating power nurturing out-migration intentions. The migration propensity of individual *i*, $Pr(M_i)$, is expressed as a function of overall aspirations A_i, which are driven by feelings of deprivation either due to a relatively low position within a social group, i.e. IRD, and/or by belonging to and identifying with a relatively deprived group within the broader societal reference category, i.e. CRD, and by absolute deprivation AD_i factored in as an individual's overall capacity to aspire.

$$Pr(M_i) = g(A_i) \;\; with \;\; A_i = f(IRD_i, CRD_i, AD_i) \tag{3}$$

The implication of this relationship is that the propensity for out-migration increases with higher levels of relative deprivation, that is, households with higher levels of relative deprivation also have higher propensities for 'sending out' a household member. However, it is important to note that this definition of the social group as the reference group for social comparisons implies that it is not necessarily a country's poorest households which experience the highest levels of (multiple) relative deprivation and thus, have a higher likelihood of out-migration. Households belonging to a group with, on average, relatively high, but unequally distributed economic well-being may have a higher propensity for out-migration than poorer households of more equal social groups.

Multiple deprivation						
Absolute deprivation	Multiple relative deprivation					
	Double relative deprivation (religion)		Double relative deprivation (social class)		Double relative deprivation (political entity)	
	IRD	CRD	IRD	CRD	IRD	CRD

FIGURE 1
Multiple deprivation and societal reference categories.

The overall implication is that migration propensity is positively related to both types of relative deprivations (individual and collective), due to the intentions and aspirations of individuals and entire households to improve their relative position within and across their societal reference group. However, to what extent these different types of relative deprivation influence the decision about out-migration, and if out-migrating, the choice of an internal or international destination, is rather unclear and has to be explored empirically. Basically, relatively deprived households are also very likely (but not necessarily!) to be absolutely deprived, and thus, may lack the economic, social and human capital resources to realise an out-migration endeavour, in particular, if migration costs are relatively high towards distant internal or international destinations. However, wealthier households can also suffer from relative deprivation if they belong to a relatively unequal social group. In this case, resource constraints may play a minor role, but migration aspirations driven by high levels of relative deprivation and a high capacity to aspire may make out-migration, and primarily, long-distance (internal and international) moves more likely for this type of household. The following case study on the drivers of internal and international migration in India shall test the validity of these implications.

Internal and International Migration in India: An Empirical Analysis

Data Source and Descriptive Statistics

This study draws on data from the 64th round of the Indian NSS conducted among 125,000 households across India between July 2007 and June 2008. This survey collects information on out-migration of former household members to another destination within or outside India. This nationally representative household sample is the result of a stratified multi-stage sampling design with households surveyed in around 12,600 villages and urban neighbourhoods all over India.[7] The collected information includes a wide range of socio-economic household characteristics as well as particulars on the out-migrant. The following empirical analysis is based on two different sub-samples. In the first one, all sampled households with or without out-migrants are considered, whereas in the second sample, only households reporting out-migration of a former household member are included, with the analytical unit being the individual out-migrant. Thus, in the first-stage regression, the dependent variable, *out-migration*, is set to one if the household has reported out-migration of a former household member to *any* other present place of residence, and zero otherwise.[8] In the second stage, three different types of regression models are distinguished: a respective variable on out-migration is set to one, or zero otherwise, if the out-migrant has chosen: (i) intra-state migration, i.e. within the same state of the former household; (ii) inter-state migration to another state within India; or (iii) international migration to another country.

Table 1 shows that the share of migrant-sending households is significantly higher for rural than for urban households. Despite some large agglomerations, India can be characterised as a predominantly rural country, with more than 70 per cent of its population still living in non-urban areas. At the national level, about 27 per cent of all households have at least one migrant in their family, with more rural households (30.4 per cent) being involved in migration of a household member than urban households (19.3 per cent). Concerning the destination of out-migration, almost three-quarters (72.8 per cent) of the migrants stay in relative geographical proximity to their

TABLE 1
The pattern of internal and international migration in India in 2007/2008.

Area	Households with any out-migrant	Present place of residence of out-migrant					
		Intra-state		Inter-state		International	
Rural (71.6%)	30.4%	73.4%		23.3%		3.1%	
Male			46.6%		45.8%		7.2%
Female			89.0%		10.2%		0.7%
Urban (28.4%)	19.3%	69.9%		22.8%		7.1%	
Male			49.9%		33.3%		15.9%
Female			79.7%		17.6%		2.7%
Total (100%)	27.2%	72.8%		23.2%		3.8%	
Male			47.1%		43.8%		8.6%
Female			87.3%		11.6%		1.1%

Notes: National Sample Survey Office (2010, p. 101) and own calculations based on the weighted NSS sample observations.

family by deciding on a destination within the state (see also Figure 2b). About 23 per cent of migrants settle in another state within India (Figure 2c), and only about 3.8 per cent decide to leave the country for a destination abroad, with a significantly higher migration rate in urban areas (7.1 per cent) compared to rural regions (3.1 per cent) (Figure 2d).

These statistics reflect some known interlinkages between migration processes from rural to local urban areas, from rural and urban areas within one state to urban centres in other Indian states, and finally, from urban centres towards international destinations (Bhagat & Mohanty 2009). Furthermore, the migration rate for men was 9.2 per cent in rural areas and 5.1 per cent in urban areas.[9] Accordingly, the migration rates for women were much higher compared to men in both the rural and urban areas, with 16.6 per cent for rural females and 11 per cent for urban females (National Sample Survey Office 2010). With respect to distance, a high share of female migrants, from both rural and urban areas, took up residence within the same state: 89 per cent of rural female out-migrants and 79.7 per cent of urban female out-migrants have their present place of residence within the same state. This high rate of short-distance migration for women can be explained by the fact that marriage is the dominant reason for female migration. Compared to female migration, migration distances are more diverse for men from both rural and urban areas. Male migrants from rural areas are almost equally dispersed (about 46 per cent) within and outside the state where they had their last place of residence. For urban male migrants, about 49.9 per cent are still residing within the same state, whereas 33.3 per cent of them had left the state of last residence. As a first explanation of these statistics, I can say that the mainly work-related migration motivations of men lead to a higher geographical dispersion according to economic opportunities at various short- or long-distance destination sites. Thus, I can, to some extent, describe the Indian migration pattern as follows: short-distance intra-state migration has a strong female character due to the importance of marriage migration; longer-distance migration to other Indian states or abroad is largely employment-driven; and international migration is mainly concentrated in a few migratory hub states such as Kerala, Goa or Punjab. Relatively deprived states like Bihar, Jharkhand and Orissa may rather fulfill the role of labour reserves for those regions with a high international migration outflow (Figure 2a, 2b, 2c and 2d).

FIGURE 2a
Inter-state relative deprivation (in rupees).

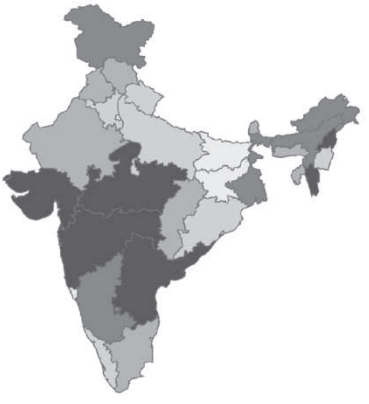

FIGURE 2b
Inter-state out-migration (per 1000 migrants).

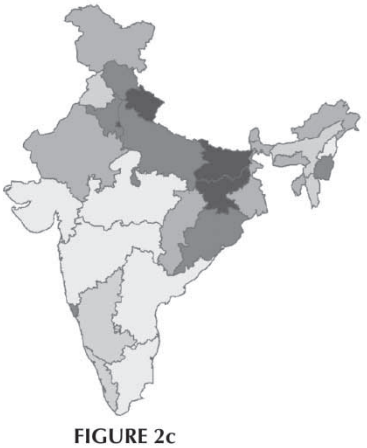

FIGURE 2c
Inter-state out-migration (per 1000 migrants).

FIGURE 2d
International out-migration (per 1000 migrants).

	Figure 2a			Figure 2b			Figure 2c			Figure 2d		
	N	*Mean*	*SD*	*N*	*Mean*	*SD*	*N*	*Mean*	*SD*	*N*	*Mean*	*SD*
	6	9225	2491	6	871	26	6	537	86	6	230	84
	6	5075	911	6	819	17	6	326	38	8	32	10
	8	2712	485	8	740	37	8	208	24	6	16	1.4
	6	928	417	6	622	41	6	150	8.7	7	7.1	1.7
	6	116	124	6	331	49	6	106	28	5	2.6	1.0

Note: Maps show 32 Indian states, with three Union Territories (partly islands) now shown; N = number of states in group interval; Mean = mean within group interval; SD = standard deviation within group interval. Graphs and calculations are based on data from the National Sample Survey Office (2010).

To understand this pattern of out-migration more thoroughly, I theorised on the role of relative deprivation with respect to different reference groups and types of belonging. Based on household-specific information and the two concepts of relative deprivation expressed by Equations (1) and (2), I generated measures of IRD for four different reference groups, namely, all India (*IRD India*), states (*IRD state*), societal class (*IRD social class*) and religious group (*IRD religious group*). These calculations of household relative deprivation levels are based on the weighted annual amount of household consumption expenditures and the mean excess consumption of wealthier households in the respective reference group.[10] Beyond these measures of intra-group comparison, I determine, for the three alternative reference groups, weighted averages of group-specific consumption levels to enable inter-group comparisons of CRD.[11] Since each household might simultaneously identify with multiple social groups across societal categories, relative deprivation levels of both types might be correlated across societal categories. Therefore, I generate two separate composite indices for 'multiple relative deprivations' across the three societal categories used in this analysis, i.e. political entity, social class and religion. Hereby, index values for the respective relative deprivation measures *IRD multiple* and *CRD multiple* are based on eigenvalues generated by principal component analysis.

Empirical Strategy

The empirical analysis will address the following two questions: first, what is the probability of a household to have a migrant; and second, what is the probability of a migrant choosing an internal (short- or long-distance) or international destination? I run two types of regression models in order to quantify the effects of various types of relative deprivation and other socio-economic covariates at the two separate analytical stages. For the second-stage analysis on destination choice, I basically apply the same set of covariates on household characteristics as in the first stage, plus some additional controls on the individual characteristics of the out-migrant.

Estimation Model

The first-stage regression predicts, as a latent variable, the unobserved probability of out-migration of a member M_i^* of household *i*, dependent on the level of individual (IRD_i) and collective (CRD_i) relative deprivation with respect to reference group *r*, and a vector of other explanatory variables X_i, the unknown vector of parameters α and the normally distributed error term ε_i.[12] Out-migration of a former household member is the observed binary variable, which is set to one if the household has sent a family member any time in the past, and zero otherwise,

$$M_i = 1 \text{ if } \left(\alpha_1 IRD_{ir} + \alpha_2 CRD_{ir} + X_i^{'}\alpha_0 + \varepsilon_i > 0\right), \text{ and 0 otherwise,} \tag{4}$$

which is estimated by a probit model. Based on model estimates, marginal effects (measured at sample means) on the probability of out-migration of a household member are then calculated for each explanatory variable. Similarly, the second-stage models predict the probability that an out-migrant *j*, as a former member of household *i*, has chosen an internal or international destination D_{ji}^d, with $d =$(intra-state, inter-state,

international). The respective binary variable on destination-specific out-migration is then set to one if the out-migrant has chosen destination *d*, and zero otherwise,

$$D_{ji}^{d} = 1 \text{ if } \left(\beta_1^d IRD_{ir} + \beta_2^d CRD_{ir} + Y_{ji}^{'}\beta_0^d + \delta^d\right), \text{ and 0 otherwise.} \quad (5)$$

I estimate the vector of coefficients β of these destination-specific out-migration models by a probit regression procedure. This approach allows a comparison of marginal effects for the set of explanatory variables across different migration destination models.

For both stages of the decision-making process on out-migration, our core explanatory variables of interest are the two relative deprivation measures. Individual relative deprivation IRD_{ir} of households identifying themselves with social group *r* within a given reference category *z* = (*political entity, social class, religion*) expresses the level of intra-group comparisons on household consumption levels, indicating the degree to which households (and their members) feel relatively deprived within their social peer group. CRD_{ir} captures the effect of feelings of CRD on behalf of social group *r* that household *i* belongs to. Since households belong to groups of different social categories at the same time, and both measures of IRD and CRD across these social categories might be collinear, I use two alternative procedures to control for the influence of multiple relative deprivations on the probability for out-migration.[13] First, I estimate separate models for relative deprivation measures IRD_r and CRD_r for the three social reference categories of state, social class and religious group. Second, I calculate the eigenvectors *IRD multiple* and *CRD multiple* that reflect the respective principal component across the three reference categories. Finally, as an overall measure without group separation, *IRD India* tests for the effect of individual household deprivation across all sample households.

Main Control Variables

The decision of a household on out-migration of one or more of its household members is assumed to be driven by a whole set of factors. Based on the characteristics of the available dataset, I am able to control and proxy for some of the various socio-economic, geographical and demographic factors at the household level. As a major variable for explaining the likelihood of out-migration, I use the number of household members, including the out-migrants (*HH size*), as a proxy for the importance of an economic intra-household risk diversification strategy, e.g. Stark and Levhari (1982). Then, capabilities to migrate are assumed to be non-linearly related to the level of absolute deprivation (Martin & Taylor 1996). I capture this effect by the amount of annual household consumption expenditures *HH consumption* and an additional squared term of this variable. To reduce problems of reverse causality, I use a Tobit estimation procedure to predict *HH consumption* levels for households reporting remittances received from an out-migrant. This shall correct for the influence of non-negative remittances on household consumption levels.[14]

Furthermore, dummy variables for households with relatively small (below 1 hectare) and large (above 6 hectares) *land possession* controls for resource availability as a migration-enabling factor (with land possessions between 1 and 6 hectares as a reference category). However, at the same time, possession can have a migration-reducing effect if the land possessed is the main source of income and household workforce is scarce. Therefore, I control, additionally, for the type of household in terms of its main economic activity. For rural households, I distinguish between agricultural and non-agricultural

households, whereas for urban areas, I control for self-employed and casual labour households.

Besides these socio-economic factors, I also take into account the influence of social and religious factors, and control for likely differences in migration propensities of various social and religious groups. I control for households that belong to either one of the three largest religious groups, i.e. *Hindu*, *Muslim* or *Christian*. Similarly, I control for social minorities, expressed by dummy variables for *scheduled tribes* and *scheduled castes*. These are social groupings that are explicitly recognised by the Indian constitution, and its members can generally be considered as severely underprivileged and the most deprived in absolute terms. Besides these two categories for minorities, I also control for households that belong to an *upper social class* as a residual category of all the households that do not belong to a scheduled caste/tribe or 'other backward class' (OBC).[15]

Estimation Results

Household Out-Migration

Table 2 reports the regression results on the probability of out-migration of any household member(s). Across all five model specifications, I find positive and significant effects of both types of relative deprivation measures for all three societal categories, i.e. the federal state as the political–institutional reference entity (*model 2*), the social class (*model 3*) and the religious group (*model 4*). When measured across all India, which means without considering societal reference groups (*model 1*), relative deprivation turns out to be a statistically and economically relevant factor in the household decision-making process on out-migration. These results indicate that there is a positive relationship between the three types of 'double relative deprivation' and migration. Households have a higher probability for migration if they are deprived *within* their societal group or if they belong to a relatively deprived societal group. The latter also holds for households which are better-off within their societal reference group. While the effect of IRD on households is relatively stable for all three societal categories, I explore significant differences across societal categories for CRD. While relative deprivation of a religious group significantly increases the probability for out-migration of its members, the same effect for CRD, at least for the social class, is rather small. This suggests that the identification with the social class is significantly weaker than the identification with the religious group and thus, inequality across social classes induces less emigration than inequality across religious groups. Application of principal component analysis for determining the composite effect of each type of relative deprivation across all three societal categories shows that 'multiple' IRD (*IRD multiple*) is a much stronger predictor of out-migration than 'multiple' CRD (*CRD multiple*).

For the other independent variables, I find a mixed pattern of explanation. Absolute deprivation, measured by annual household consumption expenditures, is a constraint for out-migration. Even when controlling for the number of household members, which proxies for an income-diversification strategy of the household, out-migration is, *ceteris paribus*, an option mainly chosen by households which are better-off. Thus, the availability of some minimal economic resources is essential for realising the migration option. This positive income effect is partly supported by the availability of some assets in terms of land property. Those households which own a relatively large amount of land have a higher propensity for out-migration of any family member compared to households with

TABLE 2
Probit estimation: relative deprivation and household out-migration.

	Out-migration of former HH member				
Dependent variable	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Individual relative deprivation (IRD)					
All India	0.158**				
	(28.47)				
Political entity (state)		0.132**			
		(25.48)			
Social class			0.116**		
			(25.78)		
Religious group				0.136**	
				(28.43)	
Multiple					0.086**
					(25.37)
Collective relative deprivation (CRD)					
Political entity (state)		0.167**			
		(6.77)			
Social class			0.008**		
			(9.67)		
Religious group				0.212**	
				(5.23)	
CRD multiple					0.010*
					(2.01)
Absolute deprivation & controls					
HH consumption	0.007**	0.005**	0.003	0.005**	0.013**
	(4.71)	(3.49)	(1.77)	(3.33)	(6.90)
HH consumption (sq.)	−0.000*	−0.000	0.000	−0.000	−0.000**
	(1.99)	(0.69)	(1.21)	(0.50)	(3.73)
HH size	0.094**	0.090**	0.089**	0.090**	0.092**
	(62.50)	(63.40)	(66.08)	(64.96)	(62.19)
Land possession	−0.003	−0.000	0.004	−0.005	−0.002
(<1 hectare)	(0.50)	(0.00)	(0.54)	(0.73)	(0.30)
Land possession	0.055*	0.062*	0.067*	0.061*	0.058*
(>6 hectares)	(2.02)	(2.29)	(2.48)	(2.28)	(2.13)
Scheduled tribe	−0.105**	−0.100**		−0.098**	−0.085**
	(14.95)	(14.10)		(13.89)	(10.20)
Scheduled caste	−0.041**	−0.039**		−0.032**	−0.024**
	(7.43)	(7.01)		(5.76)	(3.81)
Upper social class	0.056**	0.056**		0.043**	0.010
	(10.43)	(10.40)		(8.22)	(1.46)
Hindu	−0.035*	−0.039**	−0.034*		0.013
	(2.46)	(2.79)	(2.41)		(0.93)
Muslim	−0.104**	−0.106**	−0.110**		−0.066**
	(7.74)	(7.89)	(8.27)		(4.44)
Christian	0.009	0.008	−0.008		0.020
	(0.50)	(0.44)	(0.45)		(1.03)
Self-employed in	−0.031**	−0.036**	−0.036**	−0.038**	−0.034**
non-agriculture	(4.64)	(5.42)	(5.41)	(5.59)	(5.08)
Self-employed in agriculture	0.042**	0.037**	0.031**	0.044**	0.040**
	(7.14)	(6.31)	(5.33)	(7.46)	(6.79)
Urban self-employed	−0.075**	−0.068**	−0.065**	−0.077**	−0.074**
	(9.86)	(8.88)	(8.53)	(10.23)	(9.82)
Urban casual labour	−0.118**	−0.112**	−0.111**	−0.119**	−0.121**
	(9.63)	(9.06)	(9.25)	(9.69)	(10.11)

TABLE 2 (*Continued*)

	Out-migration of former HH member				
Dependent variable	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Obs. P	0.272	0.272	0.272	0.272	0.272
Pred. P	0.238	0.239	0.239	0.238	0.238
No. of obs.	125516	125516	125516	125516	125516
Pseudo R^2	0.196	0.190	0.187	0.190	0.193

Notes: *Significant at five per cent level; **significant at one per cent level. T-statistics are in parentheses. All models include state dummy variables and a rural dummy. Land possession (1–6 hectares), other backward class (OBC) and other religious groups, e.g. Sikhs, are reference categories, and therefore, respective dummy variables are not included.

no land or only minor land possession. Beyond this migration-enabling effect of land assets, rural households whose main economic activity (self-employed) is agriculture are also more 'affected' by out-migration. Why? Deteriorating agricultural prices and incomes might be an underlying reason for this tendency. It seems that two separate migration processes are induced by this: first, rural-to-rural migration of agricultural households *within* the agricultural sector, and second, rural-to-urban migration as part of an ongoing process of economic structural change with a declining agricultural sector at the limit of its labour absorption capacity (Bhagat 2010).[16] This interpretation of an ongoing economic re-structuration is supported by the finding that rural households which are not active in the agricultural sector have a significantly lower propensity for out-migration. Beyond these rather economic factors, other socio-cultural drivers can also be considered as relevant: belonging to an underprivileged scheduled tribe or class reduces the likelihood for out-migration quite significantly. Hindu and Muslim households, i.e. the two largest religious groups in India, have significantly lower migration propensities, with Muslim households being the least inclined to migrate to any destination.

The Choice of Migration Destination

Tables 3–5 report the regression results on the determinants of the migration destination choice by distinguishing between intra-state (Table 3), inter-state (Table 4) and international migration (Table 5).

Estimation of likelihoods for all three migration options is based on the same set of explanatory variables, which makes the various effects, also in their intensity, comparable. Relative deprivation is controlled for on a national level, i.e. without considering social groups, as well as by the composite indices across the three societal categories, i.e. state, social class and religious group, indicating for 'multiple' IRD and 'multiple' CRD, respectively. For all three types of 'migration distances', i.e. intra-state, inter-state and international destinations, I estimate both total and gender-specific out-migration propensities. The likelihood of short-distance movements within an Indian state is positively associated with the level of both individual and group-based relative deprivation. However, the effects are rather weak and only significant for female migration.

Since the vast majority of all female out-migration is short-distance (87.3 per cent) and motivated by marriage (84.3 per cent), relative deprivation seems to be an additional

TABLE 3
Probit estimation: short-distance (intra-state) out-migration.

	Out-migration of former HH member					
Dependent variable	**(1) Male**	**(2) Female**	**(3) Total**	**(4) Male**	**(5) Female**	**(6) Total**
IRD all India	0.001	0.010*	0.014**			
	(0.15)	(2.04)	(3.11)			
IRD multiple				0.008	0.005	0.011**
				(1.49)	(1.64)	(3.49)
CRD multiple				0.014	0.008	0.014*
				(1.36)	(1.19)	(7.99)
Employment	−0.244**	−0.004	−0.150**	−0.243**	−0.004	−0.149**
	(14.48)	(0.39)	(15.72)	(14.42)	(0.41)	(15.69)
Studies	0.122**	0.087**	0.128**	0.124**	0.086**	0.129**
	(4.57)	(11.95)	(12.13)	(4.66)	(11.90)	(12.17)
Marriage	0.380**	0.288**	0.298**	0.381**	0.288**	0.299**
	(6.51)	(35.14)	(34.73)	(6.55)	(35.01)	(34.77)
Forced	0.016	0.076*	0.098	0.016	0.076*	0.099
displacement	(0.12)	(2.18)	(1.76)	(0.12)	(2.18)	(1.77)
HH consumption	−0.018**	−0.008**	−0.011**	−0.016**	−0.008**	−0.010**
	(6.61)	(4.16)	(8.72)	(5.52)	(3.98)	(7.98)
HH consumption (sq.)	0.000**	0.000*	0.000**	0.000**	0.000*	0.000**
	(4.81)	(2.25)	(4.58)	(3.77)	(2.23)	(4.66)
HH size	0.012**	0.004**	0.008**	0.012**	0.004**	0.008**
	(8.03)	(6.03)	(9.71)	(8.30)	(5.93)	(9.83)
Land possession	−0.042**	−0.006	−0.023**	−0.043**	−0.006	−0.023**
(<1 hectare)	(3.09)	(0.91)	(3.15)	(3.13)	(0.89)	(3.18)
Land possession	0.051	0.016	0.030	0.050	0.017	0.030
(>6 hectares)	(1.35)	(1.15)	(1.60)	(1.34)	(1.20)	(1.62)
Scheduled tribe	0.087**	0.016	0.045**	0.073**	0.010	0.034*
	(4.42)	(1.55)	(4.00)	(3.18)	(0.78)	(2.46)
Scheduled caste	0.025	0.011	0.016*	0.014	0.007	0.007
	(1.87)	(1.78)	(2.31)	(0.91)	(0.80)	(2.85)
Upper social class	0.033**	−0.023**	−0.009	0.040**	−0.020**	0.004
	(2.88)	(4.24)	(1.49)	(2.78)	(2.62)	(0.45)
Hindu	0.059*	0.014	0.028	0.077*	0.020	0.042*
	(2.02)	(0.87)	(1.42)	(2.43)	(1.13)	(1.99)
Muslim	−0.107**	0.031*	−0.018	−0.087*	0.036*	−0.002
	(3.35)	(2.00)	(0.84)	(2.49)	(2.26)	(0.11)
Christian	0.002	−0.028	−0.012	0.027	−0.019	0.006
	(0.06)	(1.25)	(0.50)	(0.62)	(0.82)	(0.23)
Self-employed in	0.033*	0.018*	0.029**	0.035*	0.018*	0.030**
non-agriculture	(2.03)	(2.45)	(3.38)	(2.15)	(2.43)	(3.44)
Self-employed	−0.029**	0.022**	0.010	−0.028*	0.022**	0.010
in agriculture	(2.57)	(3.86)	(1.62)	(2.46)	(3.86)	(1.68)
Urban self-employed	−0.006	−0.031**	−0.035**	−0.046	−0.008**	−0.035**
	(0.32)	(3.84)	(3.56)	(0.24)	(3.84)	(3.49)
Urban casual labour	−0.004	0.022	0.028	−0.001	0.021	0.029
	(0.06)	(1.53)	(1.35)	(0.01)	(1.51)	(1.37)
Male dummy			−0.035**			−0.035**
			(4.07)			(4.06)
Obs. P	0.472	0.873	0.728	0.472	0.873	0.728
Pred. P	0.471	0.901	0.792	0.471	0.901	0.792

TABLE 3 (*Continued*)

	Out-migration of former HH member					
Dependent variable	**(1) Male**	**(2) Female**	**(3) Total**	**(4) Male**	**(5) Female**	**(6) Total**
No. of obs.	54091	46441	100530	54091	46441	100530
Pseudo R^2	0.218	0.145	0.290	0.219	0.145	0.290

Notes: *Significant at five per cent level; **significant at one per cent level. T-statistics are in parentheses. All models include state dummy variables. Land possession (1–6 hectares), other backward class (OBC) and other religious groups, e.g. Sikhs, are reference categories, and therefore, respective dummy variables are not included.

factor for women to leave (or be forced to leave) their household. Beyond marriage migration, another reason for intra-state migration is for educational (study) purposes. In contrast, the prospect of (better) employment is not a significant motivation for intra-state migration. Short-distance migration, i.e. migration within an Indian state, is the most likely chosen migration option of the relatively poor and underprivileged (scheduled tribes) household. A robust negative effect of household consumption levels on the probability of intra-state migration indicates a 'self-selection of the poor' for short migration distances.

Internal migration for longer distances is an option chosen by about 23 per cent of the out-migrants, with a higher probability (about four times) to be chosen by males (43.8 per cent) compared to females (11.6 per cent). This discrepancy is mainly explained by the search for (better) employment, which is only a significant factor for the migration of men. Remarkably, relative deprivation does not play a significant role in deciding on this option of inter-state migration. Instead, and contrary to the short-distance alternative, the choice of a more distant internal destination is positively related to household consumption levels. This implies that absolute deprivation turns into a constraint only when it comes to more distant destinations, which are, *ceteris paribus*, more resource-intensive in terms of being able to afford to go there (and to aspire to go there). For instance, a hypothetical increase of the average annual household expenditures by 100,000 rupees (approximately USD 2250 in 2007) would increase the likelihood of inter-state migration by about six per cent and of international migration by about one per cent, whereas short-distance migration would be reduced by about 10 per cent.

Consequently, a hypothetical balanced increase in household incomes and expenditures, which implies reduced absolute deprivation without changing levels of relative deprivation, would, *ceteris paribus*, have the following effects: first, it would significantly increase the overall out-migration propensity; and second, it would increase average migration distances, in the sense that more migrants would choose inter-state or even international destinations rather than stay within the state. Interestingly, all measures of relative deprivation have a negative effect on the probability of international migration. I can provide two alternative explanations for this result. First, lower levels of individual or group-based relative deprivation correlate with lower inequalities within and across societal groups. However, lower inequality implies that richer households lose in relative terms, and might perceive themselves as less 'rewarded' for any socio-economic efforts and achievements. Since these relatively well-endowed households tend to have higher propensities to migrate (in general, and particularly, to go abroad) compared to poorer

TABLE 4
Probit estimation: long-distance (inter-state) out-migration.

	Out-migration of former HH member					
Dependent variable	**(1) Male**	**(2) Female**	**(3) Total**	**(4) Male**	**(5) Female**	**(6) Total**
IRD all India	0.016	−0.006	0.003			
	(1.75)	(1.38)	(0.55)			
IRD multiple				0.004	−0.005	−0.002
				(0.81)	(1.70)	(0.59)
CRD multiple				0.008	−0.004	−0.002
				(0.75)	(0.66)	(0.34)
Employment	0.183**	−0.008	0.104**	0.182**	−0.010	0.101**
	(11.86)	(0.93)	(12.64)	(11.79)	(1.11)	(12.31)
Studies	−0.052	−0.747**	−0.087**	−0.053*	−0.075**	−0.088**
	(1.95)	(10.29)	(8.62)	(2.02)	(10.33)	(8.74)
Marriage	−0.284**	−0.244**	−0.242**	−0.285**	−0.250**	−0.245**
	(4.84)	(31.67)	(30.86)	(4.87)	(32.30)	(31.29)
Forced	−0.133	−0.063	−0.096*	−0.134	−0.065	−0.097*
displacement	(1.15)	(1.75)	(1.97)	(1.16)	(1.84)	(2.00)
HH consumption	0.007*	0.003	0.006**	0.004	0.005*	0.006**
	(2.17)	(1.65)	(3.03)	(1.46)	(1.31)	(2.97)
HH consumption (sq.)	−0.093	−0.043	−0.082	−0.000	−0.000	−0.000
	(1.81)	(1.02)	(1.79)	(1.33)	(1.29)	(1.75)
HH size	−0.004**	−0.001	−0.002**	−0.004**	−0.002**	−0.003**
	(2.80)	(1.60)	(2.60)	(3.04)	(2.97)	(3.73)
Land possession	0.026	−0.002	0.012	0.026	0.003	0.015*
(<1 hectare)	(1.87)	(0.26)	(1.79)	(1.88)	(0.54)	(2.31)
Land possession	−0.039	−0.015	−0.023	−0.038	−0.017	−0.024
(>6 hectares)	(1.04)	(1.07)	(1.35)	(1.02)	(1.25)	(1.44)
Scheduled tribe	−0.078**	−0.012	−0.037**	−0.084**	−0.012	−0.036**
	(4.05)	(1.26)	(3.71)	(3.73)	(1.06)	(3.03)
Scheduled caste	−0.012	−0.009	−0.009	−0.017	−0.010	−0.010
	(0.94)	(1.44)	(1.43)	(1.08)	(1.32)	(1.24)
Upper social class	−0.021	0.013*	0.005	−0.018	0.017*	0.007
	(1.84)	(2.53)	(0.96)	(1.25)	(2.35)	(0.92)
Hindu	0.015	0.000	0.012	0.024	−0.005	0.010
	(0.50)	(0.00)	(0.63)	(0.80)	(0.30)	(0.47)
Muslim	−0.013	−0.019	−0.010	−0.003	−0.025	−0.013
	(0.40)	(1.18)	(0.47)	(0.08)	(1.47)	(0.59)
Christian	0.025	0.023	0.035	0.037	0.018	0.033
	(0.60)	(1.04)	(1.38)	(0.85)	(0.75)	(1.19)
Self-employed in	−0.011	−0.004	−0.010	−0.013	−0.019**	−0.021**
non-agriculture	(0.69)	(0.47)	(1.22)	(0.78)	(2.63)	(2.63)
Self-employed	0.021	−0.008	−0.001	0.020	−0.029**	−0.011*
in agriculture	(1.78)	(1.41)	(0.24)	(1.78)	(4.20)	(2.06)
Urban self-employed	0.038	−0.012	0.009	0.037*	0.029**	0.041**
	(1.79)	(1.43)	(0.88)	(2.03)	(3.72)	(4.48)
Urban casual labour	−0.070	−0.050**	−0.061**	−0.072	−0.007	−0.032
	(1.72)	(4.20)	(3.61)	(1.86)	(1.23)	(1.92)
Male dummy			0.021**			0.021**
			(2.75)			(2.72)
Obs. P	0.438	0.116	0.232	0.438	0.116	0.232
Pred. P	0.418	0.090	0.171	0.418	0.091	0.172

TABLE 4 (*Continued*)

	Out-migration of former HH member					
Dependent variable	**(1) Male**	**(2) Female**	**(3) Total**	**(4) Male**	**(5) Female**	**(6) Total**
No. of obs.	54091	46441	100530	54091	46441	100530
Pseudo R^2	0.227	0.139	0.257	0.227	0.134	0.256

Notes: *Significant at five per cent level; **significant at one per cent level. T-statistics are in parentheses. All models include state dummy variables. Land possession (1–6 hectares), other backward class (OBC) and other religious groups, e.g. Sikhs, are reference categories, and therefore, respective dummy variables are not included.

households, a decreasing level of overall relative deprivation can well increase the overall migration inclination towards international destinations. Second, a negative relationship between relative deprivation and international migration can be caused by a mis-specification of the relevant reference group. Potential international migrants might feel relatively deprived by comparing their level of (socio-economic) well-being at home either with general economic standards and prospects abroad, or with respect to the well-being of the Indian diaspora as an 'external' reference group.

Besides the above-mentioned socio-economic factors, it stands out that smaller households tend to opt for inter-state and international destinations. This result implies that a diversification strategy of household income, which becomes more of an option for larger households, is less relevant for long-distance internal and international migration. Potentially, it is reasonable to assume that income diversification becomes less relevant for more distant migration options because of the negative effects of distance and costs related to the amount and frequency of remittance flows. However, this is left for future research.

Social factors, such as belonging to a specific social class or religious group, including the social capital and networks related to these ethnic and religious identities, also have some relevance in explaining migration distances. For instance, while out-migration of Hindu household members is more likely, but tends to be short-distance, Muslim households have lower migration propensities, but stronger linkages to international destinations. Christian households, on the other hand, have the highest out-migration rate, but do not have as strong linkages to international destinations as Muslim households do, with their well-established transnational networks predominantly to the Gulf region, where Indian (male) expatriates are the dominant group of foreign workers (Czaika & Villares 2012; Zachariah & Rajan 2005). Hindus lack similar strong ties to international destinations, which makes Hindu households not only less migratory in general, but also means that they tend to move in relative proximity to their origins.

Concluding Remarks

This paper has focused on the role of relative and absolute deprivation as driving factors of out-migration in India, and the related decisions of out-migrants about migration distances and destinations. I can find strong evidence that both individual and collective relative deprivation across political, social and religious categories play a significant role in

TABLE 5
Probit estimation: international out-migration (from India).

	Out-migration of former HH member					
Dependent variable	**(1) Male**	**(2) Female**	**(3) Total**	**(4) Male**	**(5) Female**	**(6) Total**
IRD all India	−0.007**	0.0001	−0.002**			
	(3.08)	(0.20)	(4.00)			
IRD multiple				−0.006**	−0.0004	−0.002**
				(4.47)	(0.85)	(6.01)
CRD multiple				−0.007**	−0.001**	−0.002**
				(2.68)	(3.51)	(3.90)
Employment	0.048**	0.003**	0.021**	0.048**	0.003**	0.021**
	(12.79)	(2.77)	(14.36)	(12.65)	(2.69)	(13.99)
Studies	0.006	−0.003**	−0.005**	0.005	−0.003**	−0.005**
	(0.58)	(4.70)	(4.10)	(0.53)	(4.83)	(4.28)
Marriage	−0.017	−0.015**	−0.013**	−0.017	−0.017**	−0.013**
	(1.30)	(11.42)	(9.18)	(1.29)	(11.94)	(9.52)
Forced	0.070	−0.003	−0.002	0.078	−0.003	−0.002
displacement	(1.09)	(1.16)	(0.26)	(1.17)	(1.33)	(0.28)
HH consumption	0.003**	0.001**	0.001**	0.003**	0.001**	0.001**
	(5.90)	(3.81)	(8.01)	(5.43)	(3.31)	(7.17)
HH consumption (sq.)	−0.015**	−0.013*	−0.005**	−0.000**	−0.000*	−0.000**
	(3.86)	(2.21)	(3.91)	(3.69)	(2.05)	(3.79)
HH size	−0.002**	−0.001**	−0.001**	−0.003**	−0.001**	−0.001**
	(5.77)	(6.37)	(9.21)	(6.55)	(7.18)	(10.31)
Land possession	0.004	0.000*	0.001	0.005	0.001	0.001
(<1 hectare)	(1.00)	(0.26)	(0.94)	(1.37)	(0.67)	(1.51)
Land possession	−0.008	0.002	0.000	−0.008	0.002	−0.000
(>6 hectares)	(0.91)	(0.86)	(0.02)	(1.01)	(0.81)	(0.11)
Scheduled tribe	−0.015**	−0.002	−0.004**	−0.012	−0.001	−0.003*
	(2.92)	(1.54)	(3.16)	(1.92)	(0.82)	(1.98)
Scheduled caste	−0.007	−0.000	−0.002	−0.004	−0.000	−0.001
	(1.75)	(0.43)	(1.92)	(0.87)	(0.01)	(0.99)
Upper social class	−0.000	0.001*	0.001	−0.001	0.001	0.001
	(0.09)	(2.21)	(1.31)	(0.41)	(1.32)	(0.66)
Hindu	−0.027**	−0.005**	−0.008**	−0.031**	−0.005**	−0.009**
	(3.97)	(4.08)	(5.34)	(4.05)	(3.68)	(5.41)
Muslim	0.062**	−0.002*	0.010**	0.055**	−0.002*	0.009**
	(6.36)	(2.55)	(5.39)	(5.44)	(2.39)	(4.55)
Christian	−0.002	−0.001	−0.001	−0.005	−0.001	−0.002
	(0.22)	(0.45)	(0.94)	(0.66)	(0.68)	(1.54)
Self-employed in	−0.005	0.002	−0.000	−0.010*	−0.000	−0.002*
non-agriculture	(1.05)	(1.55)	(0.24)	(2.47)	(0.04)	(2.31)
Self-employed	0.009*	0.002	0.002*	0.003	−0.000	0.000
in agriculture	(2.45)	(1.61)	(2.49)	(0.92)	(0.08)	(0.23)
Urban self-employed	−0.012**	−0.001	−0.003**	−0.003	0.001	0.000
	(3.03)	(1.23)	(3.33)	(0.97)	(1.55)	(0.25)
Urban casual labour	−0.016**	−0.003*	−0.005**	−0.006	−0.002	−0.003
	(2.85)	(2.25)	(4.30)	(0.97)	(1.15)	(1.91)
Male dummy			0.002			0.002
			(1.77)			(1.70)
Obs. P	0.085	0.011	0.038	0.085	0.011	0.038
Pred. P	0.029	0.003	0.006	0.030	0.003	0.006

TABLE 5 (*Continued*)

	Out-migration of former HH member					
Dependent variable	**(1) Male**	**(2) Female**	**(3) Total**	**(4) Male**	**(5) Female**	**(6) Total**
No. of obs.	54091	46289	100530	54091	46289	100530
Pseudo R^2	0.344	0.253	0.367	0.342	0.245	0.363

Notes: *Significant at five per cent level; **significant at one per cent level. T-statistics are in parentheses. All models include state dummy variables. Land possession (1–6 hectares), other backward class (OBC) and other religious groups, e.g. Sikhs, are reference categories, and therefore, respective dummy variables are not included.

the decision on whether to migrate *at all*. In the choice of a destination, however, the role of relative deprivation is more ambiguous. While finding rather strong positive effects on short-distance migration within a federal state, long-distance internal movements to other Indian states are less affected by the level of relative deprivation. Relative deprivation even has a negative effect on international migration, disproving, to some extent, a suggested positive link between sending-country inequalities and international migration (Stark 2006).

I can find a common set of drivers for both internal and international migration, but also some differences beyond the obvious role of some (migration-related) policies, which were not the focus of this study. The differences are mostly related to the capability of households to afford some higher costs for migrating to distant destinations. Inter-state and international migrations are the preferred migration options for households experiencing lower levels of absolute deprivation. Relative deprivation, however, is not a significant driver of longer-distance moves. This means that IRD as well as CRD positively influence the out-migration of household members; in terms of distance, however, relative deprivation is only a strong predictor for migration to more proximate destinations.

Beyond this, the relative importance of absolute deprivation, compared to relative deprivation, either within or beyond a social reference group, increases with migration distances. Economic constraints, i.e. absolute deprivation, are more important factors in long-distance migration compared to potential feelings of relative deprivation as a consequence of economic or social comparisons within or across social groups. For decisions about international migration, it is very likely that the relevant reference group or point is not, or at least not only, defined by internal standards within India, but also international standards of well-being. Partial substitution of reference groups, for instance, mediated by the media or the international diaspora, might create feelings of (international) relative deprivation that influence the decision on migrating abroad.

NOTES

1. This paper is part of the The Determinants of International Migration (DEMIG) project and has received funding from the European Research Council, under the European Community's Seventh Framework Programme, and additional funding from an Erasmus Mundus scholarship.

2. Other major achievements of migration theory, such as the role of social capital, networks or herd behaviour, have not been the focus of this study and are, therefore, not part of the empirical analysis (Epstein 2008; Fawcett 1989).
3. For instance, Gurr (1970) emphasises the importance of relative deprivation as a root source for collective violence; the larger the discrepancy between the individuals' situations and those of others, the greater the likelihood of unrest.
4. In India, for instance, Tripathi and Srivastava (1981) find that Muslims as a socially disadvantaged minority show a much more biased attitude towards Hindus if they are individually and collectively more deprived.
5. Crosby (1976) identifies four categories of behavioural responses to feelings of relative deprivation: (i) positive individual behaviours (self-improvement efforts such as education and moonlighting); (ii) negative individual behaviours (fatalism, resignation, and mental and physical stress symptoms, e.g. alcoholism, mental illness and ulcers); (iii) positive collective behaviours (working for change within the limits of a system, e.g. by voting against incumbent politicians, and social and political activism); and (iv) negative collective behaviours (participating in protests, riots and revolutions).
6. The author is grateful to one of the anonymous referees for pointing to this very relevant aspect.
7. The households were allocated to each Indian federal state and Union Territory in proportion to the population registered in the 2001 census (National Sample Survey Office 2010).
8. A household is defined as a 'group of persons who normally lived together and took food from a common kitchen' (National Sample Survey Office 2010, p. 6).
9. Migration rates for men (women) are defined as the number of male (female) out-migrants per 100 persons.
10. For the out-migration households, the annual household consumption expenditure is predicted with a Tobit model on the annual amount of remittances and some other explanatory variables. This procedure corrects for the problem of endogeneity of the household consumption expenditure variable in the migration decision models.
11. See Figure 2a for the spatial pattern of state-related relative deprivation.
12. Information on out-migration of former household members is reported by household heads. This means that out-migration of entire households is not included in this dataset.
13. Obviously, multidimensionality of reference groups for social comparisons and perceptions of relative deprivation is even more complex than operationalised here. For instance, other relevant parameters for social comparisons are educational achievements or social status. Unfortunately, the National Sample Survey does not provide information about these dimensions. Information about educational background is only collected for present household members, but not for out-migrants, i.e. former household members.
14. This prediction estimates remittances-corrected household consumption levels for those households reporting out-migrants regardless of whether or not the households have received remittances. Households without former out-migrants are excluded from this procedure and actual consumption levels are used for estimating the migration equations.
15. 'Other religious groups' and 'other backward classes' are used as references for the categories on religious background and social class, respectively.
16. About 70 per cent of migrant households in rural areas had their previous place of residence in a rural area, while 28.6 per cent had migrated from urban areas. About 56.8

per cent of migrant households in urban areas had migrated from rural areas, while 42.8 per cent were urban-to-urban migrants (National Sample Survey Office 2010).

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APPENDIX

TABLE A1
Descriptive statistics and definitions.

Variable	Definitions	Mean	Std. Dev.	Min	Max
Outmigration	Dummy variable set to one if a household is a migrant-sending household	0.27	0.445	0	1
Outmigration_short	Dummy variable set to one if former household member has migrated within the state/union territory	0.73	0.445	0	1
Outmigration_long	Dummy variable set to one if former household member has migrated outside the state/union territory, but within India	0.23	0.422	0	1
Outmigration_abroad	Dummy variable set to one if former household member has migrated abroad	0.04	0.192	0	1
Household size	Number of household members including out-migrants	5.06	2.709	1	37
Hindu	Dummy variable set to one if household is Hindu	0.83	0.418	0	1
Muslim	Dummy variable set to one if household is Muslim	0.11	0.322	0	1
Christian	Dummy variable set to one if household is Christian	0.03	0.250	0	1
Scheduled tribe	Dummy variable set to one if household belongs to a scheduled tribe	0.09	0.344	0	1
Scheduled caste	Dummy variable set to one if household belongs to a scheduled caste	0.20	0.373	0	1
Upper social class	Dummy variable set to one if household neither belongs to a scheduled tribe nor scheduled caste	0.30	0.468	0	1
Land possession (<1 hectare)	Dummy set to one if household possesses less than 1 hectare of land	0.86	0.344	0	1
Land possession (>6 hectares)	Dummy set to one if household possesses more than 6 hectares of land	0.01	0.086	0	1
Employment	Dummy set to one if the main reason for out-migration is employment	0.30	0.458	0	1
Studies	Dummy set to one if the main reason for out-migration is studies	0.05	0.213	0	1
Marriage	Dummy set to one if the main reason for out-migration is marriage	0.54	0.498	0	1
Forced displacement	Dummy set to one if the main reason for out-migration is forced displacement	0.001	0.037	0	1
HH consumption	Total annual household consumption expenditures (in 10,000 rupees)	4.512	3.924	0.058	234.99
SE non-agricultural HH	Dummy set to one for a rural household if the household is self-employed in non-agriculture	0.10	0.304	0	1
Agricultural HH	Dummy set to one for a rural household if the household is self-employed in agriculture	0.25	0.433	0	1
SE urban HH	Dummy set to one for an urban household if the household is self-employed	0.10	0.305	0	1
Urban casual work HH	Dummy set to one for an urban household if the household is casually employed	0.04	0.189	0	1
Urban regular work HH	Dummy set to one for an urban household if the household receives regular salary	0.12	0.321	0	1
Male migrant	Dummy set to one if out-migration is male	0.361	0.480	0	1
IRD all India	Individual (intra-group) relative deprivation on an all India level (in 10,000 rupees)	1.606	0.918	0	4.454

TABLE A1 (*Continued*)

Variable	Definitions	Mean	Std. Dev.	Min	Max
IRD state	Individual (intra-group) relative deprivation on a state level (in 10,000 rupees)	1.526	1.003	0	9.197
CRD state	Collective (inter-group) relative deprivation on a state level (in 10,000 rupees)	0.498	0.351	0	1.346
IRD social group	Individual (intra-group) relative deprivation on a social group level (in 10,000 rupees)	1.534	1.053	0	5.866
CRD social group	Collective (inter-group) relative deprivation on a social group level (in 10,000 rupees)	0.525	0.421	0	1.262
IRD religious group	Individual (intra-group) relative deprivation on a religious group level (in 10,000 rupees)	1.592	0.934	0	7.715
CRD religious group	Collective (inter-group) relative deprivation on a religious group level (in 10,000 rupees)	0.092	0.048	0	0.657
IRD multiple	Individual (intra-group) relative deprivation 'index' based on component 1 of PCA of all three group categories	0.000	1.878	−3.471	8.809
CRD multiple	Collective (inter-group) relative deprivation 'index' based on component 1 of PCA of all three group categories	0.000	1.146	−2.459	4.127