



India-EU Common Agenda on Migration and Mobility



► The economic contribution of Indian migrants to the EU

Two sector case studies



India-EU Cooperation and Dialogue on Migration and Mobility Project:



Local Partner



Implementing Partner



Implementing Partner



The economic contribution of Indian migrants to the EU

Two sector case studies

Jonathan Portes¹
Francesco Campo²
Elsa Oommen³

1 King's College London and UK in a Changing Europe
2 Department of Economics, University of Milan-Bocacca
3 University of Warwick and Global Future

Copyright © International Labour Organization 2020
First published 2020

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: rights@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

English Edition

ISBN: 978-92-2-032030-3 (print)
978-92-2-032029-7 (web pdf)

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

Information on ILO publications and digital products can be found at: www.ilo.org/publns.

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of Jonathan Portes, Francesco Campo and Elsa Oommen and do not necessarily reflect the views of the Government of India (GoI) or the European Union (EU).

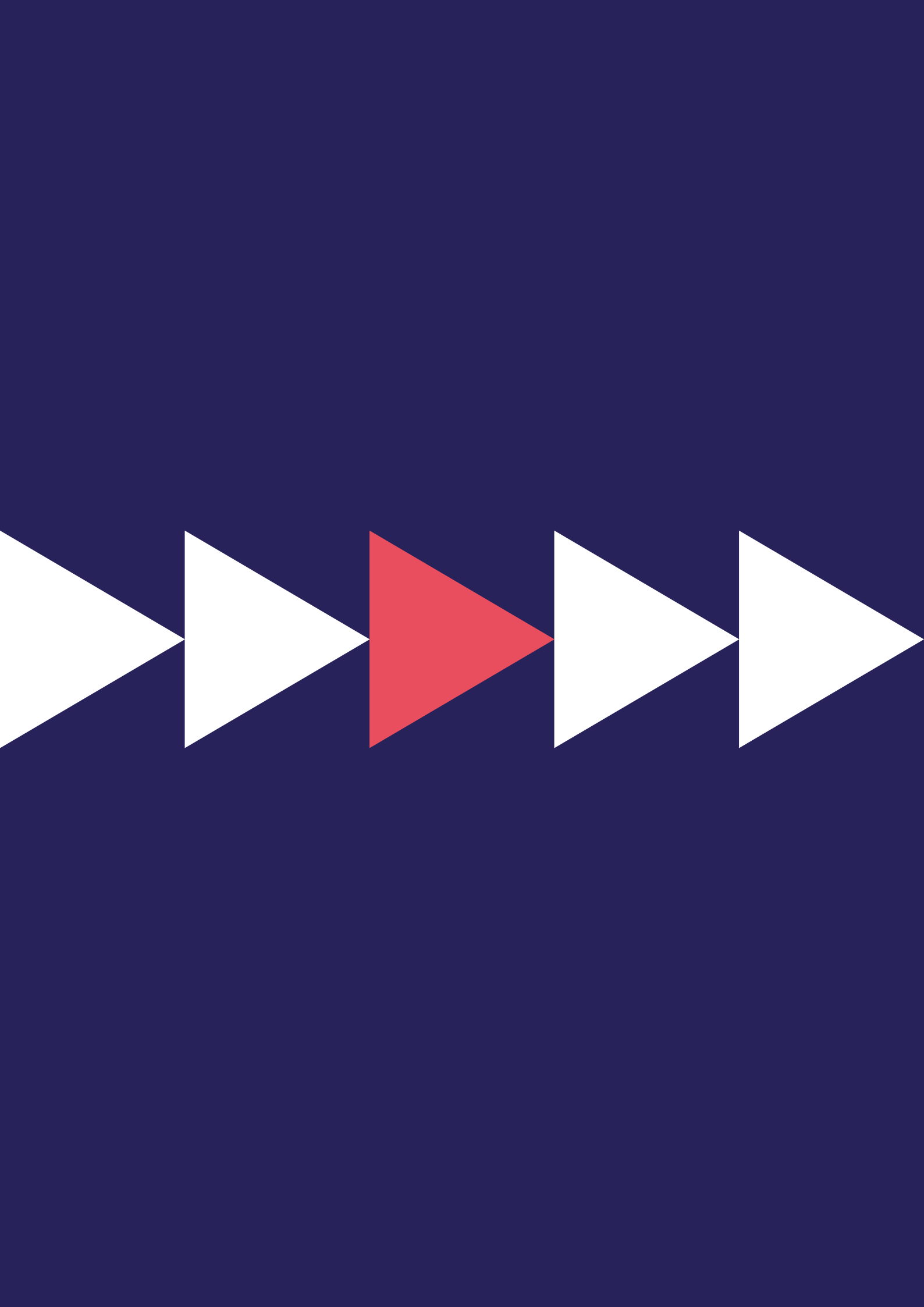
Licensed to the European Union under conditions.

Printed in India



CONTENTS

Executive Summary	v
1 Introduction	1
2 Literature Review	3
3 Indians in the IT sector in The Netherlands	5
4 Indians in the agricultural sector in Italy	12
5 Conclusions and policy implications	21
6 List of references	23





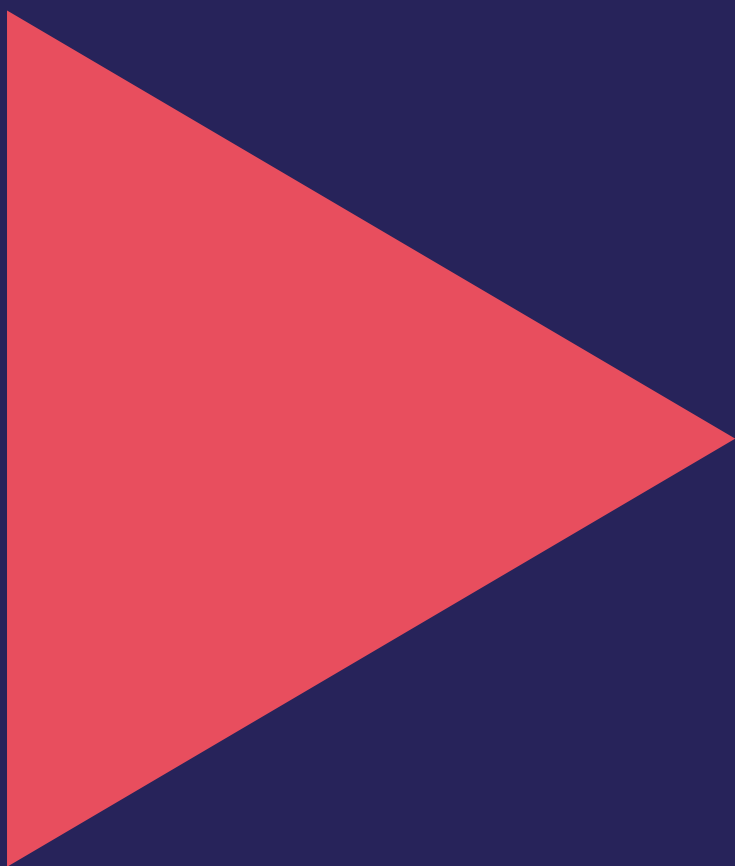
EXECUTIVE SUMMARY

We examine the drivers and impacts of Indian immigration to the EU in two countries and sectors: the IT sector in The Netherlands, and the agricultural sector in Italy (in particular the dairy industry in the north of Italy). In The Netherlands, immigration policy has been reoriented to attract high-skilled migrants, particularly in the IT sector, and this has resulted in a substantial increase in Indian migration in this sector. This has enabled employers to fill labour shortages in a dynamic and expanding sector. The flexibility of the system, both with respect to entry requirements and to the roles filled by migrants and their dependents, has both increased migration flows and also facilitated the broader expansion of the sector; cost considerations and wage levels do not appear to have been a major driver.

In Italy, by contrast, the increase in the number of Indian migrants working in the agricultural sector was not driven by policy, except inadvertently. Despite the relatively poor performance of the Italian labour market, agricultural work has become steadily less attractive to young Italians; Indians, generally arriving by irregular means but subsequently the beneficiaries of regularisation programmes, filled these gaps, and network effects meant that their numbers expanded over time. Again, flexibility, this time on the part of the workers themselves, was key, first to their attractiveness to employer and then to their ability to adapt to the Italian labour market. Despite the secular decline of the agricultural sector, there is some evidence both qualitative and quantitative, that in our region of focus Indian migrants have helped stem the decline by boosting productivity and output. Again, we found little evidence of undercutting or downward pressure on wages.

In policy terms, we find that Dutch migration policy for skilled migrants promote labour market flexibility and mean that – in contrast to more restrictive schemes where skilled migrants may be tied to one particular job – migration may have spill over benefits beyond the company where the migrant is first employed to the wider sector. While individual country circumstances will of course differ, the general principles that flow from the above points – the emphasis on relative simplicity and allowing both skilled migrants and firms a high degree of flexibility – are likely to be of general applicability.

In Italy, regularisation and family reunification allowed migrants who would otherwise have remained in at best insecure and precarious conditions (and would mostly have been unaccompanied men) to establish themselves and their families and to become gradually more integrated in the Italian economy and labour market. This has also allowed upward occupational and sectoral mobility. The contrast between the relatively positive experience of Indian migrants and some more recent migrant flows again suggests that there are lessons to be learned; regularisation programmes, particularly if they facilitate family reunification and labour market integration can allow groups of migrants who might otherwise be trapped more-or-less permanently in precarious working and living positions to have positive economic and social outcomes, both for themselves and for the host country.





1. INTRODUCTION

This paper examines the economic impacts of migration from India to the EU through the lens of two sector case studies: the information and technology (IT) sector in The Netherlands, and the agricultural sector in Italy (with a focus on the dairy sector in certain Northern regions). In both cases, Indian migrants have played a central role in the recent development of the sector, and, we might hypothesize, have enabled the expansion of output and productivity growth. The purpose of this paper is therefore to increase our understanding, at a micro level, of the specific mechanisms by which migration – both high and low skilled – may have potentially impacted economic outcomes.

These two sectors are very different, and the role of migration in facilitating their development is equally so. Our objective is therefore to cover two ends of the spectrum – high and low skilled, regular and irregular workers. Both stem from worker shortages at destination – by way of skills or willingness of nationals to do the job – and are sectors dominated by Indian migrant workers.

In the Italian dairy sector, most Indian migration was originally from the Punjab. Many migrants came by irregular means, with little knowledge of Italian labour markets or wider society; others joined family members already resident. On arrival, they gravitated to agricultural work, particular in areas of Northern Italy, since they typically came from rural and agricultural backgrounds, and the region faced labour and skills shortages. But this was a happy coincidence of supply and demand rather than reflecting either the normal operation of labour markets or the result of government policy or planning.

By contrast, while the migration of Indians to work in the Dutch IT sector also reflects demand (the rapid growth of the sector, far outstripping the growth of the native workforce with appropriate skills) and supply (the large number of qualified Indian IT specialists) it was clearly facilitated by the liberalisation of Dutch immigration policy, in particular towards skilled and highly paid workers, in the early 2000s. Comparing and contrasting these two very different experiences helps us shed light on the mechanisms at work by which migration interacts with the structure of sectors and labour markets at a local level, as well as government policy, to generate the gains in productivity that we observe at a macroeconomic level.

Therefore, while Italy proved to be the best example to study low skilled and irregular migrants, Netherlands was selected amongst other countries that attract high skilled Indian workers because of its growing importance as a country of destination for the high skilled Indian workers (numbers of Indian high skilled workers having more than doubled from 2012-2017). Additionally, as Indian workers in the Netherlands are mainly knowledge migrants (with three-quarters employed in IT and information services), this enabled the study to focus on their contribution to this specific industry⁴

The framework for the paper is as follows. We begin with a brief review of the general literature on the economic impacts of immigration, with a particular focus on the impact on productivity at a sectoral and regional level. This allows us to identify the key theoretical mechanisms by which immigration might have a positive (or negative) impact on a specific sector or region and the existing empirical evidence. These mechanisms are not limited simply to meeting labour shortages – although this clearly is relevant – but also relate to knowledge transfer, and to complementarities between migrants and native workers.

We then discuss our chosen sectors in detail, giving in both cases an overview, based on official statistics and the research literature, of the origin and trends of recent Indian immigration,

⁴ <https://www.cbs.nl/en-gb/news/2019/30/indian-knowledge-migration-has-doubled>, 25/07/19)

including both the economic and policy context. We present relevant descriptive statistics and relate recent trends in the development of the sectors to the role of immigrants in the workforce. In order to understand the mechanisms at a more granular level, we also undertook a small number of case-study interviews conducted with migrants in each of our chosen sectors.

Together, these sources enable us, amongst other topics, to further explore the recruitment channels by which migrants came to work in Europe; the interaction between demand-side and supply-side drivers; the specific nature of labour or skill shortages addressed by migration; the complementarities with native workers; and,

to a limited and speculative extent, the ways in which the sector might have developed, or might develop in future, in the absence of large immigration flows.

Given the methodological approach taken here – sector case studies combined with a limited number of qualitative interviews – we do not attempt formal quantitative or econometric analysis, except in one limited example, both for reasons of data availability and, more fundamentally, the inherent difficulties in properly specifying a counterfactual.

The paper concludes by discussing the implications for policy at a European, national and sectoral level.



2. LITERATURE REVIEW

Recent events, in particular the 2015-16 refugee crisis, have made immigration a central political issue in many if not most EU countries – including the two that are the focus of this study. Parties which favour a more restrictive approach to immigration have seen significant rises in support. Partly this reflects wider social and cultural attitudes. However, large proportions of the EU public see immigration as an economic negative: immigrants are seen as taking jobs from natives or depressing wages or as a drain on the welfare state.

Quantitative analysis suggests these fears are considerably unsubstantiated: a large body of evidence shows that any negative employment or wage impacts on nationals are small and short-term (Kerr and Kerr, 2011), and immigrants are, for demographic reasons, generally less likely to be in receipt of the most expensive aspects of most countries' social provision systems (pensions, health care and education). The overall fiscal impact of immigration varies by country but is rarely very large in macroeconomic terms (OECD, 2013). In other words, there is little evidence that immigration has the negative impacts that are often the subject of political debate.

But this does not in itself necessarily establish a strong positive case for relatively liberal immigration policies. Over the medium to long-term, the most important determinant by far of whether immigration is economically beneficial to EU countries, and in particular to their citizens, will be how it impacts on productivity. As Paul Krugman put it: "Productivity isn't everything, but in the long run it is almost everything." (Krugman, 1990)

However, the impact of immigration on productivity and hence (per capita) growth is methodologically harder to estimate than the impact on employment and wages. It has been argued that immigration to the EU is likely to have depressed productivity growth, either through a simple 'batting average' effect (since new migrants are on average paid less than the average of the current workforce, which may reflect lower productivity, at least initially) or, more tenuously, because the availability of relatively low-paid but flexible workers reduces the incentive to invest in labour-saving and/or productivity-enhancing equipment. There is however little evidence to substantiate these claims: poor productivity performance in most

EU countries over the last decade coincides with the financial crisis and its aftermath (which in turn led to a fall in migration in a number of EU countries) rather than changes in migration flows.

Equally, there are a number of mechanisms by which migration could increase productivity. Immigrants' skills may complement those of natives. A number of papers support this hypothesis: for example, Barone and Moretti (2011) found (in Italy) that low-skilled migration increased the labour force participation of highly skilled native women; Peri and Sparber (2009), using US data, and Foged and Peri (2016), looking at refugee settlement in Denmark, found that low-skilled migration increased the wages of native low skilled workers. In particular, they argue that natives may have a comparative advantage in jobs with more communication-intensive tasks with respect to foreign workers, and that immigration 'pushes' low-skilled natives to occupations with a higher intensity of such skills, increasing the level of specialization in the economy and hence productivity, as signalled by the corresponding increase in wages.

Immigration might also influence the level of human capital in the economy, either directly if immigrants have high educational attainment (Kerr and Lincoln 2010, Hunt and Gauthier-Loiselle 2010), or indirectly by increasing the incentive on natives to acquire human capital. Some evidence (Hunt 2017, McHenry 2015) suggests that increased low-skilled immigration increase school performance and educational outcomes.

Immigration may also influence the amount of innovation in an economy, and therefore indirectly boost productivity. Again, it is important to note that there are two possible mechanisms at work here. First, the direct

effect of immigrants, particularly highly skilled immigrants or those working in specific fields, who may contribute more to innovation. Second, harder to quantify, the indirect effects on a country, sector or region as a whole – including native workers – from greater diversity in workforces or teams, or of complementarities between immigrant and native workers. There is a considerable body of evidence that suggests that immigration is associated with increased innovation (for example, that immigrants are more likely to register patents, and that this, in turn, leads to an increase in patent activity on the part of natives) (Hunt and Gauthier-Loiselle, 2010). Immigration is also associated with international trade and knowledge transfer, particularly in high-tech industries.

At the aggregate level, recent literature uses cross-country evidence to estimate the impact of migration on growth and productivity in advanced economies, generally using an instrumental variable approach to establish that the impact is causal, not simply a correlation. Boultane et al. (2016) find that migration in general boosts productivity in advanced economies, but by varying amounts; Jaumotte et al. (2016) find that a one per cent increase in the migrant share of the adult population results in an increase in GDP per capita and productivity of approximately two per cent. This result is consistent across a variety of empirical specifications. Perhaps surprisingly, the estimated aggregate impacts of high and low skilled migration are not significantly different (although the distributional implications are very different). In a within-country perspective, Peri (2012), with a state-based analysis in US, finds that a one per cent increase in immigration raises total factor productivity (TFP) by 0.5 per cent, mainly thanks to increased specialization induced by immigrants' inflows. In France, Mitaritonna et al (2017) find similar results looking at TFP in manufacturing at the level of Departments.

More recent UK evidence is also positive. Campo et al. (2018) exploit geographical variation in the migrant share of the workforce, again using an instrumental variable approach to deal with issues of reverse causality, to estimate the **impact** of immigration on productivity. It finds that a one percentage point increase in the share of immigrants within a UK local authority leads

to an almost three percentage point increase in productivity (measured as the growth in Gross Value Added (GVA) per head over the period considered). This result holds for both short- and long-term changes, and at different levels of geographic disaggregation. Similar results are obtained by Costas-Fernández (2018) and Smith (2018), looking at region-sector levels.

Two interesting elements emerge from the discussion above, found by different papers using different methodologies and different data, which inform the discussion below. First, it is not just that immigration appears to have a positive impact on productivity growth, but that this impact is large; indeed, some would argue implausibly large, reflecting perhaps that some of the estimated impact may incorporate region- or sector-specific trends. While we should therefore be cautious about assuming that these impacts are necessarily entirely causal, all these papers use some form of instrumental variable approach to address this objection, and the overall weight of evidence appears strong.

Second, while both theory and casual intuition would suggest that the impact of high-skilled migration on productivity would be positive, while that of low-skilled migration would be negative or perhaps neutral, there is no clear evidence from these papers to make this distinction. Indeed, as noted above, a number of studies specifically find a positive impact on productivity from low-skilled migration, attributable to some of the spillover or complementarity mechanisms described above.

The implication is that simplistic models of migration that simply see migration as adding to aggregate labour supply, or aggregate human capital, are unlikely to be particularly useful in explaining the economic impacts of migration. Those impacts are likely to depend on which of the numerous specific causal mechanisms above are at work, and that in turn is likely to differ by geography and industry. In our discussion below, we therefore – recognizing the limitations of the data and of establishing causality - attempt to unpick the contributions of Indian migrants to the development of our chosen sectors.



3. INDIANS IN THE IT SECTOR IN THE NETHERLANDS

a. The growth of Indian-origin migration to The Netherlands

Indian immigration to The Netherlands is a relatively recent phenomenon. During the 1950s and 1960s, it ran at negligible levels, and even during the 1970s was only a few hundred per year (Engbersen et al, 2011:31). It began rising in the 1980s, with 1700 Indian nationals arriving in The Netherlands in 1984 (Bal, 2012: 10) over the past decade, however, there has been a sharp rise in Indian immigration, particularly of skilled workers, to The Netherlands. Bal (2012) notes there are about 22,000 Indians in The Netherlands, compared to a little over 9,000 in 1996.

The driving force behind this rise was the liberalisation, and increased skill orientation, of Dutch migration policy. Beginning in the mid-2000s, it became apparent that, over the medium and long term, The Netherlands faced skill shortages: the economy was becoming increasingly oriented towards high-value service industries, such as the IT sector, but the domestic supply of workers with the appropriate skills was inadequate.

This remains the case; it is estimated that by 2025, 1.3 million new jobs will be created in medium skill and 2.4 million jobs in the high-skill level, while labour supply is only expected to grow at 1 million at the high skill level, with an expected drop at the medium skill levels (OECD, 2016). Hence, absent (growing) migration levels, it is likely that there will be a steady increase in skill shortages at both medium and high skill levels in The Netherlands. Sleurink et al (2016) particularly identifies the shortage of skilled workers in Chemicals, Energy, High tech systems and materials (identified as 'beta-oriented' industries by the authors) of The Netherlands as contributing to the trend to recruit overseas knowledge workers (Sleurink et al, 2016). Short-term shortages are also experienced in the hospitality and construction sector amongst others. Overall, however, the Dutch distribution of total job opportunities is significantly skewed towards high-skilled occupations than that of the EU-28 (ten percent higher than EU average) for the forecast period of 2013-2025.

Recognizing these pressures, policy towards skilled immigration was liberalized significantly in the mid-2000s, paralleling similar liberalizations in other EU Member States (for example, the UK, somewhat earlier, and Germany, somewhat later). Bal (2012) identifies the introduction of special regulations for highly-skilled migrant workers (*kennismigrantenregeling*) in October 2004, as an important landmark in Indian highly-skilled migration to The Netherlands.

Unlike other countries, like the UK, which stipulates a list of job roles and salaries for prospective migrants to be considered as 'high-skilled', The Netherlands uses the sole criterion of salary to categorize highly skilled. For third country nationals from outside the EU and the EEA, a gross monthly salary of € 4,500 (or € 3229 for those under 30) is considered as high-skilled (as of January 2019).⁵ These income criteria do not apply for researchers, doctors in training and guest lecturers, who must instead earn a minimum gross monthly salary of € 1221⁶ similarly, a lower salary threshold (€ 2364 per month) applies for recent graduates from a Dutch university. There is also a work permit system for "labour migrants" which is generally more restrictive, and requires a labour market test (that is, the employer needs to show that there is no suitable resident available for a specific post).

Once a company (from the list of officially recognized sponsors) decides to hire an employee as a highly skilled migrant, they apply for a residence permit at the Dutch Immigration and Naturalization Service (IND). Around 4730 companies are currently recognized by IND as sponsors for the highly skilled migrant visa, and almost 13,920 highly skilled migrant permits were granted in 2017.⁷ Highly skilled migrants from outside the EU require a temporary residence permit (MVV) to move to The Netherlands and can subsequently get a long-term residence permit to stay in the country for more than 3 months. The long-term residence permit is valid for the same length of time as the job contract with the employer, up to a maximum of five years in the case of *kennismigrants*, and can also

⁵ <https://ind.nl/en/news/pages/new-income-requirements-for-knowledge-migrants-and-blue-card-holders.aspx>

⁶ <https://ind.nl/paginas/normbedragen-inkomenseis.aspx>

⁷ <https://ind.nl/en/news/Pages/Employers-punished-for-fiddling-with-highly-skilled-migrants-24-October-2018.aspx>

be extended.⁸ Highly skilled migrants are also eligible for a single residence permit (GVVA) which gives them rights to live and work in The Netherlands, without having to take a separate work permit.⁹

Highly skilled migrants were also encouraged to move to The Netherlands due to a particularly favourable tax reimbursement ruling, effectively a tax subsidy - commonly known as the 30% ruling - available to overseas employees with 'specific expertise' most commonly measured by high salary rates.¹⁰ For instance, any foreign migrant worker earning a minimum of € 37,296 and have previously lived at least 150 km away from the Dutch border qualifies for the 30% ruling¹¹, in which 30% of the annual earnings are tax-free. This tax break was previously available for a period of 8 years from the time a migrant employee moves to The Netherlands. However, in 2018, the overall duration of this tax break has been reduced (retrospectively) from 8 to 5 years, initially with no transition period.¹² This was revised in 2019 to include a transitional period of 2 years for expatriates who were using the 30% facility prior to 2019.

The introduction of highly skilled migrant visas stimulated a significant increase in Indian migration in particular; Indian migrants make up the largest single component of skilled migration, representing about a quarter of the total.¹³ In total, 20,000 Indian workers received a first residence permit during the period of 2005-14, and in 93% of cases this was a permit for skilled workers.¹⁴ Bal (2012) found that the majority of Indian immigrants in The Netherlands are highly qualified employees with a background in IT, consultancy, engineering, management etc. This is not surprising, given that the skilled migration route (or university study, leading to a skilled job) is the main route

open to Indian migrants to The Netherlands, in contrast to the UK, where significant Indian migration also takes place by the family route (secondary, or chain, migration).

In 2016, 7555 Indians migrated to The Netherlands. 3630 migrants came for work, and 2730 for family reasons.¹⁵ A substantial majority were male.

Table 1. Indian immigration to The Netherlands

Years	Men	Women	Total
2006	1450	700	2150
2007	1840	850	2690
2008	2425	1215	3640
2009	2080	1220	3300
2010	2105	1255	3360
2011	2500	1485	3985
2012	2500	1660	4160
2013	2900	1780	4680
2014	3230	2050	5280
2015	3840	2555	6395
2016	4425	3130	7555

Source: Netherlands Central Bureau of Statistics

Taken together with qualitative research described below, this suggests that a significant proportion, perhaps the majority, of skilled Indian migrants were married and came with their spouses and, perhaps, children. This may reflect that the salary threshold favours those with relatively established careers, rather than new entrants. Family migrants have full working rights and thereby can work without any restrictions on hours or sectors in which they can work. Additionally, favourable living conditions, high quality of life, widespread use of English and a generally welcoming environment towards expatriates are other reasons why Netherlands is chosen over other countries by the Indian expats for working in the IT sector.

8 https://www.expatica.com/nl/visas-and-permits/Dutch-residence-permit-for-highly-skilled-migrants_104381.html

9 <https://ind.nl/en/work/Pages/Highly-skilled-migrant.aspx>

10 https://www.belastingdienst.nl/wps/wcm/connect/bldcontenten/belastingdienst/individuals/living_and_working/working_in_another_country_temporarily/you_are_coming_to_work_in_the_netherlands/30_facility_for_incoming_employees/conditions_30_p_facility/you_possess_a_specific_expertise

11 https://www.belastingdienst.nl/wps/wcm/connect/bldcontenten/belastingdienst/individuals/living_and_working/working_in_another_country_temporarily/you_are_coming_to_work_in_the_netherlands/30_facility_for_incoming_employees/conditions_30_p_facility/

12 <https://www.dutchnews.nl/news/2018/04/no-transition-period-for-expats-hit-by-30-ruling-cuts-ministry-says/>

13 <https://ind.nl/nieuws/paginas/nieuwe-inkomenseisen-kennismigranten-en-blauwe-kaarthouders-gepubliceerd.aspx>

14 https://read.oecd-ilibrary.org/social-issues-migration-health/recruiting-immigrant-workers-the-netherlands-2016_9789264259249-en#page73

15 <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/84140NED/table?dl=127BC> [Accessed on 29 Oct, 2018]

b. The growth of the IT sector and Indian migration

The IT sector in the EU has grown rapidly in recent years, with employment growth of more than 36% in the 2007-17 period (compared to only about 3% overall). The Dutch IT sector accounts for nearly 5% of GDP, as shown in Table 2, and has expanded considerably faster than the overall economy in recent years.

Employment in the IT sector currently stands at about 432,000, as shown in Figure 1.

Most IT businesses in The Netherlands (about 95%) are relatively small, employing less than 10 employees, with only 200 companies that employ more than 200 staff members. Rapid

Table 2. Netherlands, growth in Gross Value Added (GVA), IT, 2012-2017

Gross value added (basic prices) for all sectors and IT (2012-2017)					
Sector	2013	2014	2015	2016	2017
% change all sectors	0.3	1.4	1.7	2.0	2.9
% change IT	2.0	3.6	4.9	5.8	3.7

Source: Netherlands Central Bureau of Statistics

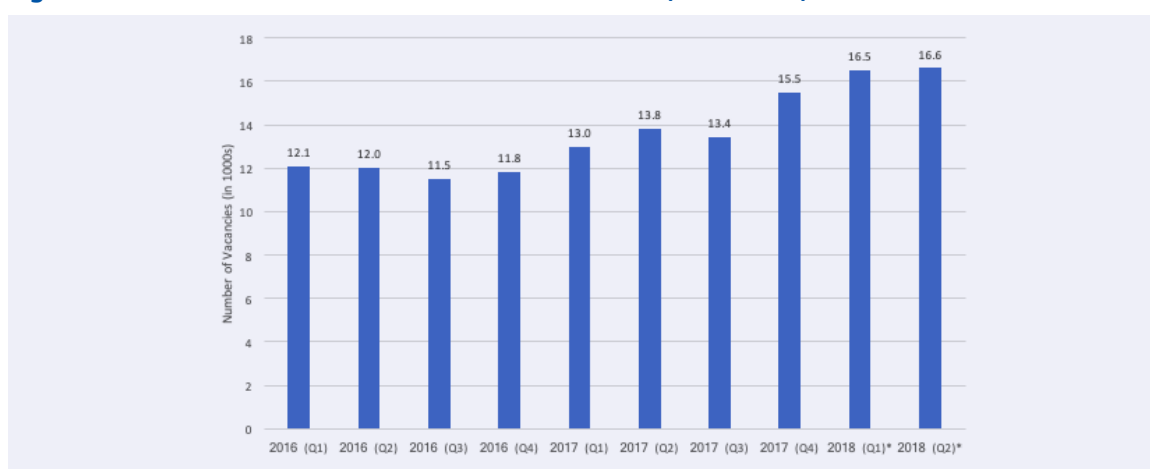
employment growth has also been reflected in high levels of labour shortages in the sector, with more than 16,000 job vacancies projected in the second quarter of 2018.¹⁷

Figure 1. Employment of IT specialists in The Netherlands (2008-2017)



Source: Eurostat (2018)¹⁶

Figure 2. Vacancies in the IT sector in The Netherlands (thousands)



Source: Netherlands Central Bureau of Statistics¹⁸

¹⁶ http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_sks_itcps&lang=en

¹⁷ <https://www.cbs.nl/en-gb/news/2017/26/ict-sector-growth-above-average>

¹⁸ Seasonally adjusted data: <https://opendata.cbs.nl/statline/#/CBS/en/dataset/80474eng/table>

c. Migration routes and recruitment channels

Given the rapid growth of the sector and the shortages of national (Dutch born or resident) with the appropriate skills, it is not surprising that the liberalization of the rules governing skilled migration to The Netherlands described above resulted in a rapid rise in the number of migrants working in this sector. And, as in some other countries (in particular the UK), Indians represent by far the largest single source country.

By 2016, Indians constituted the majority of those issued with work permits in the IT sector (including IT development and technical advice), with 910 permits out of 1583 in this sector being issued to Indian nationals (China was the second largest source country); and, conversely, the majority of work permits issued to Indians were in this sector (out of a total of 1562 permits issued to Indians in all sectors).¹⁹

Indians also dominated the broader and larger highly skilled migrant category described above, with 3,605 permits issued, 40% of the total, far exceeding the second largest source country, the US, with only 10% of the total. This trend has, if anything, intensified in recent years (in 2008 Indians constituted 33% of the considerably lower total knowledge worker permits that were granted). Kirk et al (2017) found that highly qualified, young Indians with backgrounds in information technology, consulting, engineering and management are the fastest growing group of Indian expats in The Netherlands.

Table 3. Highly skilled migrants granted a first residence permit by nationality in 2016

Top 5 countries	2016
India	3,605
USA	969
China (incl Hong Kong)	520
Turkey	466
Russia	440

Source: Dutch-SOPEMI report, 2017 ²⁰

One important question for the purposes of this paper is the routes by which Indian IT workers are recruited – in particular, is the key driver the individual worker who chooses to apply for a job in The Netherlands, or it is the increasing presence of Indian IT companies, who either choose to recruit Indians or simply to move them from India to The Netherlands as an intra-company transfer? Bal (2012: 13) attributes the increasing immigration of Indians to The Netherlands (and particularly to Amsterdam) to the latter, relating it to rapid growth in the number of Indian companies in The Netherlands. This is clearly an important finding and would seem to argue for the latter explanation.

Currently, more than 200 Indian companies have their presence in The Netherlands, alongside the emergence of India as a pivotal business process offshoring base for Dutch companies with skills shortages in the IT sector.²¹ The Indian IT sector has been a key driver of India's economic growth, employing 3.7 million people, in which the sector contributes to more than 45% of the country's total service exports.²² Significantly, the rising number of Indian IT firms who are looking for increased local presence in the western markets, such as The Netherlands, demonstrates their increasing role in shaping the output and growth of IT sectors in the respective countries (Beerepoot & Roodhevel, 2016).

However, the findings from the case studies conducted as part of the qualitative input of this project, detailed below, suggest an alternative, or at least complementary, driver: a growing proportion of Indians who are directly applying to international companies based in The Netherlands. This in turn appears likely to have been driven by the rapid growth of the sector, which has continued to outpace the availability of skills in the domestic labour market, leading to Dutch and multinational companies, as well as Indian companies, looking to India as a source of skilled labour.

Our case study research provided us with further evidence on migration methods and recruitment channels and motivations. Out of the four participants who moved as knowledge workers, only one was "on deputation" (that is, an intra-company transfer) from the company that he was previously working for in India. This company uses intra-company transferees

19 Dutch-SOPEMI report (2017) https://www.regioplan.nl/publicaties/rapporten/dutch_sopemi_report_2017_migration_statistics_and_migration_policies_in_the_netherlands, p.48

20 https://www.regioplan.nl/publicaties/rapporten/dutch_sopemi_report_2017_migration_statistics_and_migration_policies_in_the_netherlands p.44

21 <https://www.thehindubusinessline.com/economy/netherlands-emerging-hub-for-indian-firms-in-europe/article10048530.ece>

22 <https://atradius.nl/rapport/market-monitor-ict-india-2017.html>

extensively, both in The Netherlands and elsewhere (particularly in the UK). However, three other participants applied directly to a specific company. One of these subsequently shifted to another employer. The ability to shift employers (which is generally not available to transferees, and not always to those on work permits, except under certain conditions) is an important aspect of labour market flexibility, both for the migrants themselves and their employers. In particular, it means that there is a positive externality to the broader sector that accrues when an individual employer recruits abroad – it widens the overall talent pool available to the sector. Another participant was referred for the job through an indirect acquaintance. Again, this illustrates that – surprisingly – recruitment takes place not only via the established intra-company transfer route (which is obviously demand-driven), but also via supply-driven routes, which can be informal and personal.

A further participant had migrated on a dependent visa, and found that she was at an advantage in directly applying to companies, who saw her application favourably, since they were not bound by government stipulated knowledge worker salary requirements in her case. Again, this is a further example of the labour market flexibility resulting from the relatively liberal regime adopted by the Dutch government, which benefits not only individual migrants and their employers (obviously, the willingness of her husband to migrate was in part influenced by the fact that his wife would also be able to work) but also the wider IT sector and perhaps the wider economy.

Given the available migration routes and the data above, we can conclude that the vast majority of current Indian migrants to The Netherlands fill skilled jobs roles, primarily in the IT sector; this is further supported by the salary data presented below. However, this leaves open a number of questions: are the skills general IT skills or specific skills relevant to individual jobs, and to what extent do attitudes to work or motivation play a role? Aggregate data shed little light on these questions, particularly since the majority of Indian migrants do not come through the work permit route, which requires a labour market test (indicating, at least in theory, that there is no resident worker available for the role) but rather through the highly skilled route which requires no such test.

Our case study participants indicated that Indian highly skilled workers occupied a niche in the IT

based job roles, where they mostly fill technical roles like developers. Their view was that if Indian skilled migrants were not available for these roles, then most of the companies would struggle to expand their IT operations in The Netherlands, which would in turn impact their global position and growth; they would either grow more slowly, or choose other locations in which to expand; in other words, the growth and expansion of the sector is in part driven by the availability of skilled Indian workers.

However, beyond these specific skills, more general attitudes and aptitudes were also seen as important. One participant noted:



‘Some of these roles require availability anytime of the day. To take an example, if the IT application that support the plant [to] run goes wrong in the midnight or wee hours, someone needs to get up and fix it. Until then there will be a production loss. Many local employees remain averse to taking up such roles.’

This suggests that work attitudes and motivation may be a relevant consideration, in that even some high skilled and highly remunerated jobs may not be popular among native workers.

d. Wages, taxes and social benefits

It is often asserted that IT firms with operations in the EU seek to recruit Indian workers (either EU-based firms employing Indians, or Indian firms with IT operations in the EU using intra-company transfers) for cost reasons; that is, they can use Indian staff to do work which could otherwise be performed by native-born staff, but choose not to do so because they would have to pay higher wages. However, the available evidence does not seem to support this hypothesis.

Burgers & Touburg (2013) argue that the main reason that Indians get recruited to The Netherlands is because they possess skills that are not available locally. They agree with the findings of Millar & Salt (2008) that, although there is a cost perspective to labour mobility, in that it is cheaper to recruit Indians to work in the firms than to recruit the native workforce, recruitment and employment decisions are not primarily based on labour cost considerations.

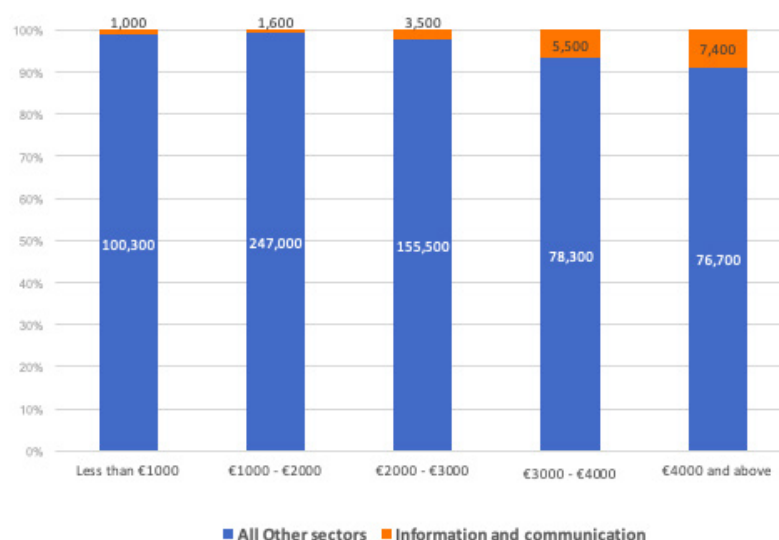
Burgers & Touburg (2013:523) conclude that 'skills are more important than labour costs when it comes to recruiting Indian software specialists' in the Netherlands. This should not be surprising: although the Dutch visa scheme for highly skilled workers is relatively efficient and less bureaucratic than in many other countries, it nevertheless requires some investment of time and money on the part of the employers, as well as the necessary costs of relocation and so on, so it would not in general be rational for employers to employ migrants if similarly skilled domestic residents were easily available.

Given both the skill and wage levels of the sector, and the migration routes and channels

described above, it would be expected that Indian migrants in the IT sector would be a relatively high earning group. The available data support this. While the median foreign-born employee in the Netherlands earns under 2,000 euros/months, the median foreign-born employee in the IT sector earns between 3,000 and 4,000 euros/month, with a large proportion earning more than 4,000 euros/months (the median wage in the Netherlands is just under 3,000 euros/month).

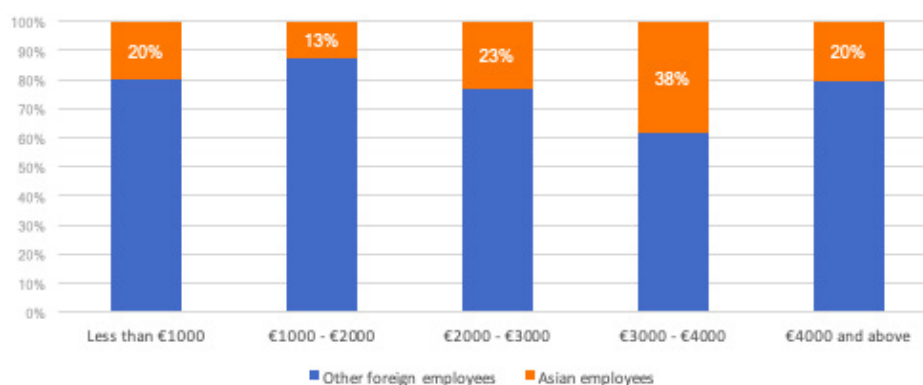
This described all foreign workers in the IT sector; but within this Asian workers (the majority of whom are likely to be Indian, as discussed above), earn somewhat more than average foreign employees.

Figure 3. Monthly wages of employees born abroad, in 1000s (as on Sept 2014)



Source: Netherlands Central Bureau of Statistics

Figure 4. Monthly wages of foreign employees in the IT sector



Source: Netherlands Central Bureau of Statistics

Our case study evidence confirmed that salaries for Indian migrants in this sector are relatively high, with all participants who divulged their salary information earning more than 5,000 euros a month; it was clear that all sample participants were high earners, certainly in the top quintile of the Dutch earnings distribution, as would be expected given the nature of the system. This means that their income comes within the highest tax rate of 51.95%. However, the 30% tax ruling favoured them and meant that 30% of their annual income was exempt from tax. The sample participants mentioned that 30% tax ruling is currently contentious in the context of the high skilled migrant labour market, since there has been a government proposal to bring in retrospective changes to this tax discount, reducing the period of eligibility to 5 years.

It is also worth noting that sample participants were not eligible for social benefits such as

unemployment benefits. However, all of them mentioned tax benefits drawing from the 30% ruling, discussed above, which effectively constitutes a subsidy to highly skilled migrant employment. Beyond that, they also had access to some universal social benefits provided by the Dutch government, such as child care allowance. In addition, in some cases their employers provided additional benefits on top of those which is already available from the state, to cover the expenses of living as expatriates. One participant noted that these were fairly generous, including reimbursing fees for English-language private education. Again, this argues against cost considerations (“undercutting” of domestic workers) being the primary driver for employers to recruit migrants; the savings on salary would have to be very large indeed to outweigh these benefits, suggesting that employers genuinely feel that they have no alternative but to employ migrants.

4. INDIANS IN THE AGRICULTURAL SECTOR IN ITALY

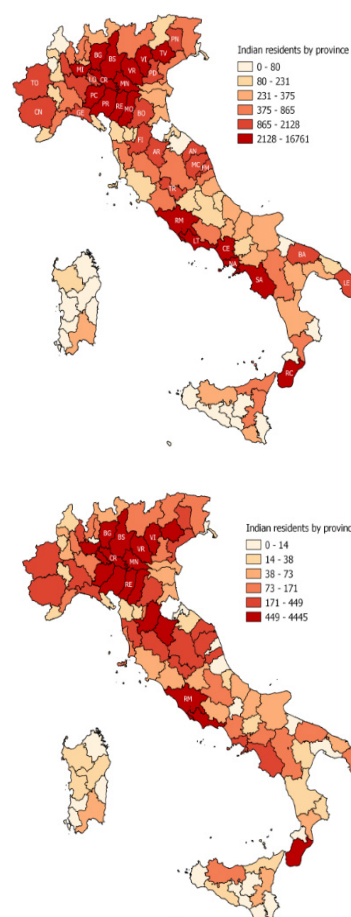
a. Indian immigration to Italy

Although India has a long history of emigration in the post-colonial era, official figures for the number of Indians resident in Italy have only recently shown a sharp increase. As shown in Table 4 (ISTAT, yearly data on residents by citizenship and province, 2003-2018), in 2003 the number of Indian citizens registered in Italy was 35,518 - this rose more than four-fold to 151,791 in 2018. The share of Indians of the total resident population is now approximately 0.25%, Immigration overall to Italy was also growing strongly over this period, especially after the expansions of the European Union in 2004 and 2011. Nevertheless, Indians also slightly grew as a proportion of total immigration (from 2.29% in 2003 to 2.95% in 2018), ranking 6th among foreign national groups in 2018 (from 10th in 2003) and 5th among non-EU nationalities.

Figure 5 maps the distribution of Indian citizens across Italian provinces. In 2003, Indians were concentrated in the central areas of Northern Italy as well as in Rome; this pattern remains in 2018 but the Indian population has become somewhat more dispersed.

Table 5 shows more detailed data for the 10 provinces with the largest Indian resident populations. Excluding Rome, the city with the highest absolute number in 2018 is Brescia where almost 14000 Indians live; the highest share is in Mantova, with 2.14 %.

Figure 5. Number of Indian citizens by province, 2003 and 2018



Source: Italian National Institute of Statistics

Table 4: Italian provinces with largest Indian resident populations, 2003-2018

	Total															
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
total Indian residents	35518	44791	54288	61847	69504	77432	91855	105863	121036	118409	128903	142453	147815	150456	151430	151791
perc. of tot. pop.	0.06	0.08	0.09	0.11	0.12	0.13	0.16	0.18	0.20	0.20	0.22	0.23	0.24	0.25	0.25	0.25
perc. of imm. pop.	2.29	2.25	2.26	2.32	2.37	2.26	2.36	2.50	2.65	2.92	2.94	2.89	2.95	2.99	3.00	2.95
	Males															
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
total Indian residents	20670	27465	34154	38350	42275	46318	54314	62912	73446	70454	77245	85678	88838	89791	89778	89749
perc. of tot. pop.	0.07	0.10	0.12	0.14	0.15	0.16	0.19	0.22	0.26	0.25	0.27	0.29	0.30	0.30	0.30	0.30
perc. of imm. pop.	2.62	2.72	2.78	2.84	2.87	2.72	2.84	3.05	3.34	3.73	3.75	3.68	3.74	3.77	3.73	3.63
	Females															
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
total Indian residents	14848	17326	20134	23497	27229	31114	37541	42951	47590	47955	51658	56775	58977	60665	61652	62042
perc. of tot. pop.	0.05	0.06	0.07	0.08	0.09	0.10	0.12	0.14	0.16	0.16	0.17	0.18	0.19	0.19	0.20	0.20
perc. of imm. pop.	1.95	1.77	1.71	1.78	1.86	1.80	1.90	1.98	2.01	2.22	2.22	2.19	2.23	2.29	2.33	2.32

¹ source: Istituto Nazionale di Statistica (ISTAT).

Table 5. Indian citizens in Italy, top 10 populated provinces, 2003-18

province	residents	perc. of tot. Indians	perc. of province pop.	province	residents	perc. of tot. Indians	perc. of province pop.
Total							
Brescia	4445	12.51	0.40	Roma	16761	11.04	0.38
Roma	3172	8.93	0.09	Brescia	13836	9.12	1.10
Cremona	2658	7.48	0.79	Latina	11236	7.40	1.95
Mantova	2630	7.40	0.69	Bergamo	9871	6.50	0.89
Reggio nell'Emilia	2370	6.67	0.51	Mantova	8799	5.80	2.14
Vicenza	2206	6.21	0.27	Cremona	6455	4.25	1.80
Bergamo	1742	4.90	0.18	Vicenza	5488	3.62	0.64
Verona	1289	3.63	0.15	Reggio nell'Emilia	5391	3.55	1.01
Milano	932	2.62	0.03	Verona	4785	3.15	0.52
Modena	920	2.59	0.14	Parma	3933	2.59	0.87
Total	22364	62.97		Total	86555	57.02	

Source: Italian National Institute of Statistics

Figures for both male and female migrants record a rapid growth, but the sex-ratio remained unbalanced, with males representing about 60% of Indian migration to Italy in 2018. This is partly due to cultural factors which inhibit women from migrating alone, combined with Italian procedures for family reunification, which require a minimum duration of work permit and impose an income threshold before granting access for spouse or siblings (Lum, 2012a). The combination of these two elements may explain the choice of a migration strategy which prioritizes the first arrival of male workers followed then by the rest of the family (note the contrast with the experience of Indians migrating to the Netherlands, described above, where a skilled worker visa allows dependents to migrate simultaneously).

It is important to note that this observed growth in the number of Indians registered as resident in Italy may in large part reflect not new migration, but the regularisation of previously irregular migrants (Fasani, 2009). Significant regularisation initiatives ("*sanatoria*") took place in 1990, 1995, 1998, 2002 and 2009, with about 44000 Indians regularising their status, with 17000 in the 2009 exercise alone (Lum, 2012a).

In sharp contrast to the Dutch system, in recent years relatively few Indians appear to migrate via the regular Italian work permit scheme, which is bureaucratic and restrictive. Under the "Decreto Flussi", there is a fixed annual quota (divided into sub-quotas) for employment-based migration to Italy from outside the EU. In 2018 the total quota was about 30,000, of which about 18,000 was reserved for seasonal workers (including in agriculture and tourism). Moreover, the bureaucratic nature of the scheme means that take-up is low – in 2016 only about a third of the

available permits were allocated, in large part because the workers would not in fact have been able to arrive in time for the harvest.²³ In practice, it appears that the pressures of the refugee crisis have resulted in the Italian system for the regulation of legal economic migration – never particularly efficient and transparent – becoming an even lower priority.

Indian migration to Italy can therefore not – as in The Netherlands – be regarded as the reasonably foreseeable outcome of a deliberate strategy, underpinned by specific immigration and visa policies, but largely reflects both labour demand and the ad hoc responses of the Italian system to migration flows.

Our case study evidence is consistent with this, as well as with the pattern of Indian migration to Italy identified by previous qualitative studies cited here. All our participants were part of the migration wave between the end of 1980s and early 2000s, which laid the basis for the substantial Indian community we observe today in Italy. Two of them came to Italy through a family reunion procedure, while the others settled in Italy through an "irregular" process, which has been very common for many migrants from India (Lum, 2012a). That is, they arrived in Europe on a tourist visa, and then secured a work permit with the aid of their employer and with the sponsorship of Indians already in Italy. One of our participants arrived directly in Italy, while two others arrived in other European countries and moved to Italy when they learned of the possibility of obtaining a worker permit.

Immigration to Italy was generally driven by "pull" factors, including both employment

²³ <https://www.lastampa.it/2017/07/19/italia/decreto-flussi-ecco-i-dati-del-flop-permesso-solo-a-un-richiedente-suttre-s7LjRg6zfe4ewml7MI8VyN/pagina.html>

opportunities, driven by labour demand, and existing family connections. All our participants noted that the presence of relatives or friends represented a pull factor toward Italy. However, they explain that the regulatory framework for immigration during the relevant period made Italy very attractive to them and to Indians in general. It was possible to arrive as tourist, with a time-limited visa, and then get a work permit when they found a regular job, often through networks composed of previous Indian migrants and their employers.

b. Indians in the agricultural sector

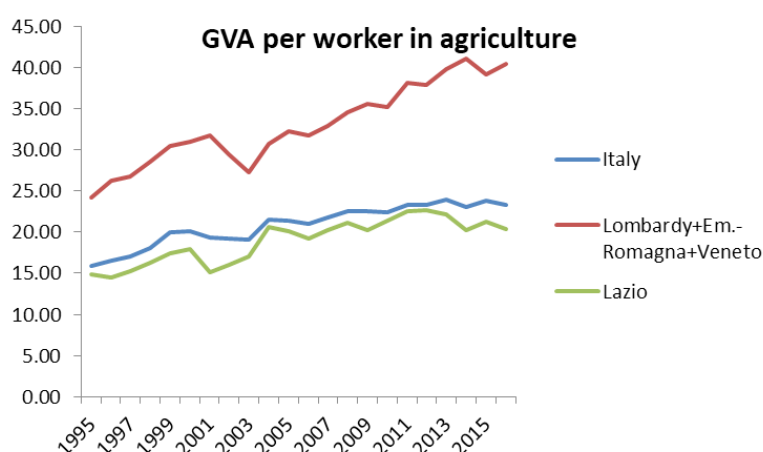
Reflecting the migration patterns described above, Indians are primarily employed in relatively low skilled work. Table 6, which breaks down employment according to the type of employment contract, shows that the majority of Indians are manual workers in the non-agricultural sector (for example, in manufacturing), although Indians are not over-

represented in this sector compared to other migrants.

The agricultural sector, on the other hand, while ranking second in the absolute number of Indian workers (just over a quarter in 2016), ranks first - by far- for the share of Indians on total non-EU employees, with 16.1 % in 2007 and 24.1 % in 2016. Even among self-employed workers, Indians are concentrated in the sector, representing 7% of non-EU workers in 2016, from 1.2 % in 2007.

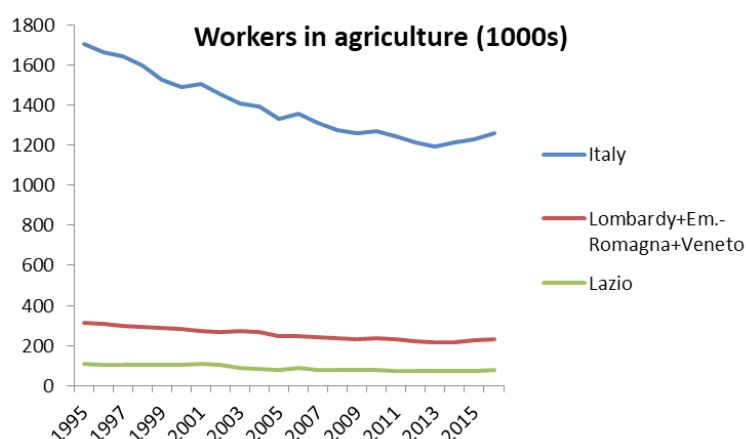
In Table 7, we show the regional concentration of Indians in the agricultural sector, focusing on the two areas which hosted the largest Indian communities: the macro- regions of Lombardia, Emilia-Romagna and Veneto in Northern Italy, and Lazio, in Central Italy. In both areas the proportion of Indian workers into the local agricultural labour force is well above the national average. In the northern regions Indians represent almost one third of

Figure 6. Trend in GVA per worker in agriculture. (1995-2016)



Source: Italian National Institute of Statistics

Figure 7. Employment trends in agriculture. (1995-2016)



Source: Italian National Institute of Statistics

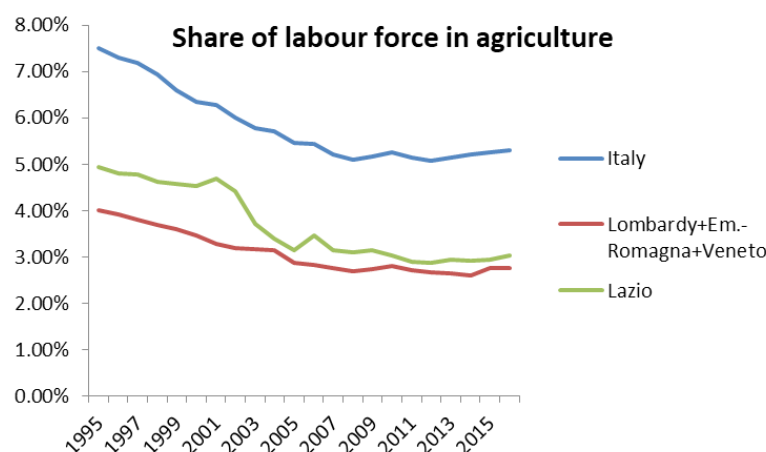


Table 6. Distribution of Indian workers in Italy by sector. (2007-2016)

	2007			2016		
	Indian workers	perc. of Indians in Italy	perc. of non-EU work. in prof. sector	Indian workers	perc. of Indians in Italy	perc. of non-EU work. in profess. sector
Agriculture employees	6236	19.92	16.07	18018	26.87	24.13
Agriculture self-employed	16	0.05	1.77	119	0.18	7.02
Commerce self-employed	985	3.15	1.23	4228	6.31	2.29
Domestic workers	2564	8.19	1.08	6940	10.35	2.04
Executives & managers	127	0.41	7.95	181	0.27	7.53
Handicraft self-employees	444	1.42	0.61	1458	2.17	1.54
Non agriculture manual workers	20039	64.01	3.11	34382	51.28	4.50
White-collar & professionals	893	2.85	2.14	1720	2.57	2.46
Total:	31304	100.00		67046	100.00	

Source: Italian National Institute of Statistics

non-EU workers in 2016 (28.6 %) and 3% of total employment. The figures are even higher for Lazio, 71% of non-EU and 10% of total workers.

It is useful to contrast this data with the general development of agriculture in Italy. In contrast to the IT sector in The Netherlands, agriculture makes up a small, shrinking and relatively less productive sector of the Italian economy. Agriculture accounts for about 2% of gross value

added, and wages in the sector are only about half of average wages economy wide.

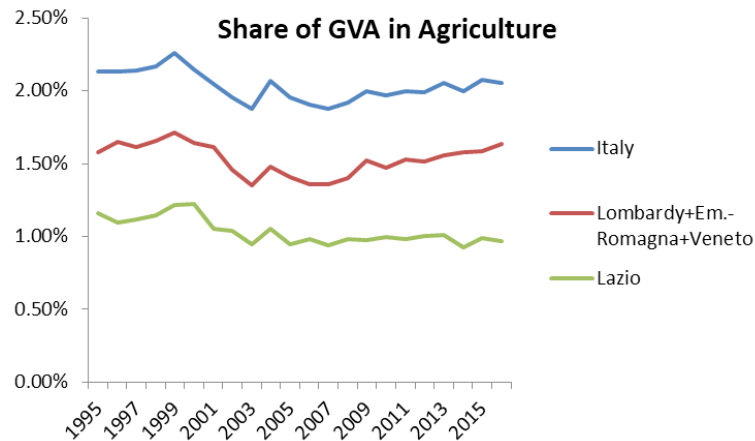
However, there are notable regional differences. In particular, while the overall importance of agriculture to the Italian economy has been slowly declining (as with almost all industrialised countries), recent years have seen a slight increase in agriculture's share of output in the Lombardy/ Emilia-Romagna/Veneto regions, where many Indian immigrants are concentrated and where

Table 7. Indians working in the agricultural sector in Italy, selected provinces, 2007-2016

year	A) Italy									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
n. of Indians	6252	7533	8905	10162	12286	14216	15154	15083	17216	18137
perc. of extra-EU	15.7	16.0	17.1	18.9	20.8	21.7	23.2	22.8	23.1	23.8
perc. of total workers	NA	0.7	0.8	0.9	1.1	1.3	1.4	1.3	1.5	1.6
year	B) Lombardia, Emilia-Romagna and Veneto									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
n. of Indians	4035	4500	4964	5425	6088	6636	6859	6111	7445	7664
perc. of extra-EU	26.9	26.0	26.0	26.5	28.8	29.7	28.9	26.2	28.8	28.6
perc. of total workers	NA	2.2	2.3	2.5	2.7	4.8	5.0	2.6	3.1	3.1
year	C) Lazio									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
n. of Indians	883	1335	1733	2011	2646	3281	3677	4062	4494	5074
perc. of extra-EU	42.6	48.9	53.8	97.0	60.8	65.1	67.4	69.7	70.7	71.4
perc. of total workers	NA	3.4	4.3	4.8	6.1	7.2	8.0	8.7	9.3	9.9

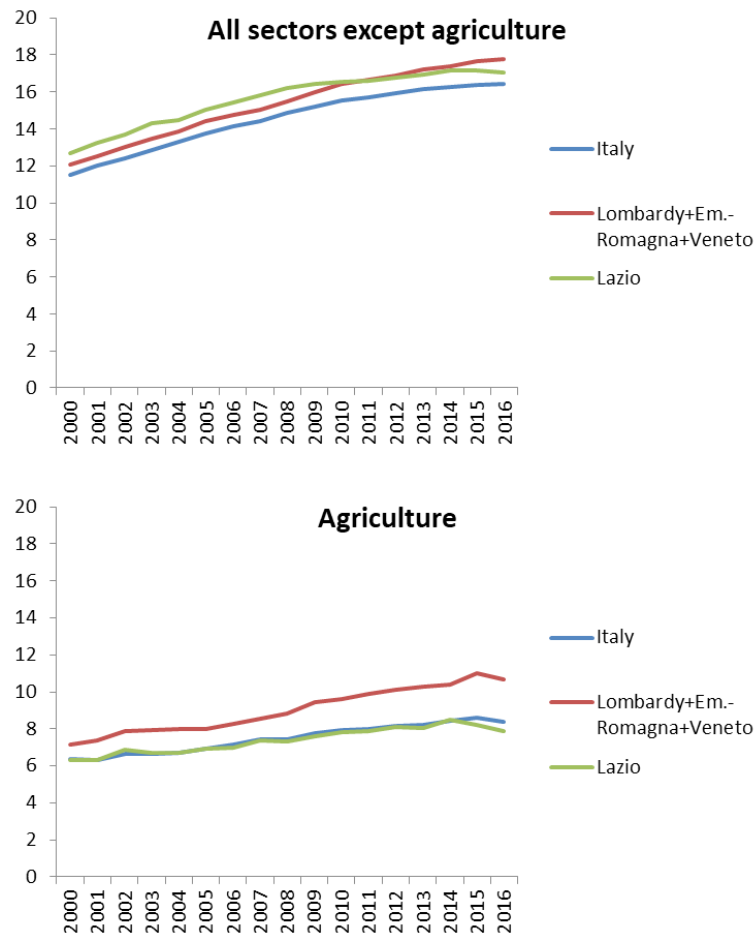
Source: Italian National Social Security Administration

Figure 8. Italy, agricultural sector share of GVA. (1995-2016)



Source: Italian National Institute of Statistics

Figure 9. Average hourly wages: agriculture vs rest of economy. (1995-2016)

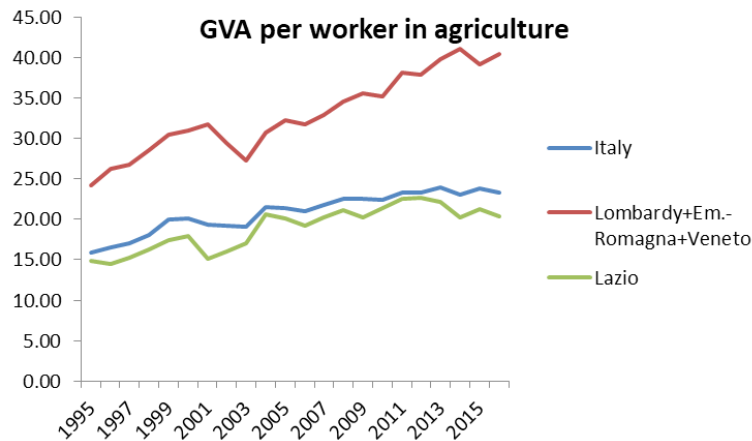


Source: Italian National Institute of Statistics

the dairy industry is largely concentrated. Moreover, this has been accompanied by quite strong productivity growth, in the context of very slow productivity growth both in agriculture and in the wider Italian economy. By contrast, in

Lazio, the other main area of concentration of Indian agricultural workers, trends have been similar to the national average.

Figure 10. Trend in GVA per worker in agriculture. (1995-2016)



Source: Italian National Institute of Statistics

c. Recruitment channels and job roles

The relatively high concentration of Indian agricultural workers in these two areas of Italy is in sharp contrast with Indian migration to other EU countries, which is generally characterized as high-skilled migration (not just in The Netherlands but also in other EU countries such as Germany). In this section, we try to identify the key factors driving this, with a particular focus on the dairy industry in northern Italy. In particular, was this concentration driven by regional/sectoral specific labour vacancies which coincided with inflows from India or did it reflect the specific skills or characteristics of Indian migrants which made them particularly attractive for employers in this sector?

There is a limited literature examining dairy industry workers who migrated from Punjab to the province of Cremona from a sociological perspective, looking at the dynamics of Indians who have filled this labour market niche: Gardani et al. (2002, *Turbanti che non turbano: Ricerca sociologica sugli immigrati indiani nel cremonese*) and Compiani and Quassoli (2005, *The milky way to labour market insertion: the Sikh "community" in Lombardy*). Unfortunately, both papers predate the economic crisis (and recent changes to Italian migration policy).

Both papers argue that migrants from Punjab are largely selected from the "middle-class" of small land owners. This reflects both the political turmoil in Punjab in the 1980s, but also structural changes in the Indian agricultural sector. The combination of the introduction of technology in farming, credit constraints and national policies of prices control, made it difficult for small land

owners to compete with large companies. These conditions increased incentives to migrate for at least one family member in order to diversify income sources and supply supplementary funds from abroad to invest in either physical or human capital at home. Since migration is expensive (Gardani et al, 2002), it is in effect a form of investment for middle-class landowners.

Compiani and Quassoli (2005) date the first arrival of Indians in Cremona back in the first half of 1990s, when Indian started to settle in the dairy industry, mainly as *bergamini* (cowmilkers) in the typical Northern Italian farms (*cascine*). Many of them arrived with tourist visas and then obtained work permits (Gardani et al., 2002). The dairy sector in North Italy had gone through a process of gradual technology adoption since 60s which strongly reduced the need for workers in daily operations. But, at the same time, the ongoing industrialization and urbanisation in Italy made other sectors and areas more attractive to Italian workers. The dairy industry in this area thus experienced a reduction in labour demand, but this was considerably exceeded by the reduction in labour supply by natives (in particular younger generations), creating labour shortages which were filled by Indian migrants (Gardani et al., 2002).

While there is little hard data available (the articles cited above are qualitative, and no statistics are available at this level of disaggregation), anecdotal evidence confirms the importance of Indian workers to the dairy sector in particular, with one source citing an estimate that one third of the workforce producing cheese in Cremona are of Indian origin, and citing the view of sector representatives that "Indians have saved the

industry, which would have otherwise collapsed because of shortage of labour among native population.”²⁴

This specific match between labour demand from the Italian dairy industry and potential labour supply from India was confirmed by our case study evidence. Participants observed that Indians came to Lombardy (and to the province of Brescia in particular) in the first place because their agricultural background in India gave them a comparative advantage in a region where demand for workers in the agricultural sector was much higher than the supply, in particular in the dairy industry. One participant observed “In India most of them have land and they were working there in agriculture. So they are used to this kind of work.”

Clearly network effects played an important role; the first Indians who established themselves in this labour market played a fundamental role in attracting newcomers and creating a system of direct sponsorship to employers (Compiani and Quassoli, 2005). Networks are in fact often a necessary condition in the migration process and having relatives or contacts already in destination country is certainly a factor that incentivises migration from India and affects the probability of success in finding a job, especially given the legal framework governing family migration to Italy (Gardani et al., 2002). Again, our case study participants, as described above, all confirmed this, with networks (relating both to the availability of work and family connections) playing an important role in their decision to migrate to Italy and to their subsequent career trajectory.

Beyond network effects, which are a common factor among many national and ethnic groups for in the creation and expansion of migrant communities, Gardani et al. (2002) provide a more detailed analysis of the successful match between Indian migrants and employers in the cow-milking industry in Cremona. Employers sought a stable workforce with high flexibility, particularly in terms of working hours (in particular, willingness to accept shift work and to work weekends and holidays where required). Workers were usually offered accommodation within the *cascina* (dairy farm) so that they could be close to stalls when needed. Indians’ willingness to accept these conditions – in contrast to native Italians, and perhaps to some other immigrants – was identified by our

case study participants as a major factor in the growth of the Indian workforce in this sector. Several participants noted that Indian workers were appreciated by Italian employers for their commitment and flexibility. All the participants mention that Indian were available to work even during weekends and festivals and with very short-notice, and more willing to accept longer shifts.

This form of employment was attractive to Indians for two main reasons. First, some extra money can be earned through supplementary activities (e.g. helping cows to deliver), which can increase the monthly salary up to €3,000 (Lum, 2012b), and part of these payments may be made in cash, avoiding some taxes (note that the use of cash payments to avoid taxation is common in Italy, not just for migrant workers). This can boost incomes significantly, increasing the amount of savings available to be sent home as remittances or for investments in other economic activities in Italy in the future. Secondly, given some level of discrimination against Indians in the Italian housing market, the offer of accommodation within the *cascina* made the process of family reunification easier, since Italian immigration law required the sponsoring resident to have officially registered accommodation, a regular job contract and a minimum income.

Lum (2012b) represents a further and more recent, piece of qualitative evidence on Punjabis working as cow-milkers in North Italy. The focus is here not exclusively on Indian employees in *cascine* but also on the opinions of employers, employees’ family members and exponents of local government and unions. Interviews to employers, in particular, provide useful insights on the determinants of such a high concentration of Indians in this labour market segment. Farm owners stress the importance of Indian networks in the recruiting process, which then drove the expansion of the Indian community: the first Indians employed as cow-milkers provided connections which led to further hiring among their network of relatives and countrymen.

Interestingly, some employers in this study reveal a general preference for Indians over workers from other countries. They describe Indians as quiet, punctual and committed to work, and consider them less likely to cause conflict (either with employers or other workers) than other nationality groups, especially Egyptians and Moroccans.

24 New York Times, “In Italian heartland, Indians keep the cheese coming” <https://www.nytimes.com/2011/09/08/world/europe/08iht-italy08.html>

But while Indians' flexibility – in contrast to Italian-born workers – may have made them more attractive to employers, the wage data presented above shows relatively little evidence of undercutting or wage depression (although much more detailed data would be required for a full investigation). The wage data presented above suggests that while wages in the agriculture sector are, unsurprisingly, considerably lower than average, the differential is lower in the northern Italian regions of interest and has narrowed rather than widened over the recent past, which does not appear consistent with Indian immigration having a large negative impact on wages.

The relatively good performance of agricultural wages in this region is presumably driven by the productivity trends described above, so it is of interest to examine whether Indian migration may, at least in part, be a factor in this

outperformance. While the data is not sufficient to draw firm conclusions, we conducted a simple regression exercise using the available data. As shown in Table 8, levels of Indian migration appear to be significantly positively associated with GVA per worker (productivity) as well as measures of output in the dairy sector; these associations also hold using a standard instrumental variable approach to control for endogeneity, providing at least some evidence that the impact is indeed causal.

Given the lack of controls for industry and region-specific trends, these results should be regarded as tentative, but they do nevertheless provide some quantitative support to the qualitative evidence described above, that Indian migration has contributed not just to the size of the available workforce but also to the efficiency of the sector.

Table 8. The impact of Indian immigration on the dairy industry, econometric analysis

	(1)	(2)	(3)	(4)	(5)
	GVA	GVA per worker	Milk collected (1000s q)	Drinking Milk produced (1000 q)	Cheese produced (1000s q)
OLS estimates					
Share of Indians	45,271*	1,427**	645,233**	155,569**	54,048***
in regional population	(24,624)	(619.3)	(260,787)	(70,443)	(16,788)
Observations	280	280	280	280	280
R-squared	0.991	0.945	0.992	0.987	0.997
Region fixed effects	YES	YES	YES	YES	YES
Year Fixed effects	YES	YES	YES	YES	YES
IV estimates (Shift-share instrument (Card, 2001) for Indian immigration at regional level)					
Share of Indians	193,896***	2,861***	2.994e+06***	268,005***	157,878***
in regional population	(38,912)	(720.9)	(633,347)	(87,747)	(25,732)
Observations	280	280	280	280	280
F-statistic of first stage (Weak Identification test)= 65.71					
Region fixed effects	YES	YES	YES	YES	YES
Year Fixed effects	YES	YES	YES	YES	YES
Robust standard errors in parentheses (*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$). Each specification includes controls for log. Population, share of immigrants (excl. Indian citizens) on population, region and year fixed effects.					
Source: Authors calculations, using ISTAT data, 2003-2016.					

d. Career progression and integration

Even if many Punjabi workers have an agricultural background - and, hence, skills relevant and transferable to the Italian dairy sector - many of those interviewed in Gardani et al. (2002) nevertheless see their roles as temporary and simply as a starting point for careers in Italy. Most of them would not, given alternatives, have chosen to work in the agricultural sector in Italy, for both financial and other reasons. So while experience in farming in India clearly helped the insertion of these workers in this niche and hence the Italian labour market, many of them do not have a particular vocation and some feel that they have other skills, beyond agriculture, for which they do not feel rewarded.

Both Gardani et al. (2002) and Compiani and Quassoli (2005) identify two migration strategies for Punjab migrants regarding capital accumulated in Italy and, interacting with this, the intention to return in India. In the first, savings are remitted to family in India to finance investments for education or businesses and the worker plans to return to his homeland in the future. The second one, on the other hand, involves the use of savings for investments in Italy, where they plan to settle for the middle/long term. This also often involves the type of family migration described above, where spouse or other relatives join an earlier, male migrant.

In common with many other migrant communities in Europe, it appears that there was, over time, a clear shift from the first to the second strategy. Both papers report that the majority of those interviewed, while still sending remittances to India, plan to remain in Italy. Improvements in living conditions and better career prospects for themselves and their children are the main reasons for this choice.

Although these papers are now dated, our case studies confirmed that this remains the case, and provide a number of examples of the latter strategy (although clearly selection bias is at work here). All of our participants display considerable mobility, both sector and occupational. For example, one began working in the pig breeding industry in Lodi, and now has a trucking firm active in the provinces of Piacenza and Lodi which employs both Italian and foreign workers. Another is now the owner of a firm for the industrial cleaning and packaging of socks produced by a large big company in the textile sector. Again, his company employs a diverse labour force. A third arrived in Brescia in 1996 to join her husband and now works as an intermediary with schools and public administration in order to ease linguistic and cultural barriers.

Our case studies also shed further light on the integration process, which they generally regard as successful, both for them personally and the Indian community in general, although there were some issues with respect in particular to female labour force participation, which was inhibited both by cultural factors and by the lack of supporting public services (transport and childcare). There was relatively little mention of discrimination against Indians. When asked about obstacles to economic success, those most frequently mentioned (access to credit for Small and Medium Enterprises, and excessive bureaucracy) were identical to those cited by native Italians.

None of the participants declared any intention to move away from Italy or even from the actual province of residence. Further integration was expected for subsequent generations, who expected better career prospects and further upward social mobility for the next generation. No Indian or immigrant-specific obstacles to this progression were identified.



5. CONCLUSION AND POLICY IMPLICATIONS

The concentration of migrant communities in specific sectors and regions is a common phenomenon, resulting from the interaction between (excess) labour demand and the supply of potential migrants, and the role of informal networks in facilitating further migration flows. It is therefore not surprising that – despite the huge differences between them – these factors are at work in both our chosen sectors.

In The Netherlands, there is an imbalance between demands for labour, in particular skilled labour and relatively low levels of supply, given demographics and other factor relating to the domestic education and skills system.²⁵ The number of vacancies in the economy is on a historic high, with current shortages in the IT industry unlikely to ease in the near future. The negative economic impacts of these shortages is likely to be significant; one in four IT companies reported a fall in productivity in the second quarter of 2017 due to skilled staff shortages.²⁶

Highly skilled Indian migrants in The Netherlands fill some of these critical vacancies in the sector. They bring skills and experience, and contribute to the economy (especially the IT industry) and via taxes. It is notable that the policy framework provided by the Dutch government – a relatively clear and transparent system, designed to facilitate rather than inhibit skilled migration – appears to result in a relatively flexible labour market, with migrants being able to move between companies, and with dependents having the right to work. This means that there are significant positive externalities to the wider sector of an individual companies' decision to recruit a migrant. One issue that may reduce these benefits relates to the restriction of the current tax subsidy for skilled migrants – while this appears reasonable on economic grounds, the retrospective nature of the policy change has raised some concerns.²⁷

Despite this relatively liberal policy, the IT industry in The Netherlands still has a high level of vacancies, and skill shortages appear endemic.

In other words, despite the very high level of potential supply of migrants with IT skills from India, allowing such migrants to fill vacancies does not appear to lead to a reduction in excess demand, even over the medium term – both the level of migration and the number of vacancies appear to be growing. We cannot draw strong conclusions about causality here, but the most obvious explanation is that migration, along with other factors, allows the industry to grow, which in turn generates additional demand for labour in the industry. So, in the case of a sector that has the capacity to expand, additional labour supply does not – as a naive view might suggest – “balance” excess labour demand, but rather to the further expansion of demand.

The relative success of Dutch policy has implications for other countries seeking to use immigration policy to boost growth, particularly in sectors that require workers that are both skilled and flexible. In particular, the following characteristics of the Dutch “kennismigrantenregeling” scheme, while not unique to The Netherlands, seem to have proved to be an effective combination:

- ▶ The use of a salary threshold, operated in a relatively light touch fashion, as the central criterion, rather than focusing on specific “shortage” occupations.
- ▶ The lack of a resident labour market test and the ability to switch employers.
- ▶ Other aspects of flexibility, including effectively unrestricted access to the Dutch labour market for dependents.

All these features of the scheme promote labour market flexibility and mean that – in contrast to more restrictive schemes where skilled migrants may be tied to one particular job – migration may have spillover benefits beyond the company where the migrant is first employed. While individual country circumstances will of course differ, the general principles that flow from the above points – the emphasis on relative simplicity and allowing both skilled migrants and firms a high degree of flexibility are likely to be of general applicability.

One idiosyncratic feature of the scheme is the effective tax subsidy to skilled migrants, now being reduced. It is unclear whether this was

²⁵ <https://www.cbs.nl/nl-nl/visualisatie/2017/07/spanningsmeter-arbeidsmarkt>

²⁶ <https://www.cbs.nl/nl-nl/nieuws/2017/26/kwart-ict-bedrijven-heeft-personeelstekort>

²⁷ https://www.belastingdienst.nl/wps/wcm/connect/bldcontenten/belastingdienst/individuals/living_and_working/working_in_another_country_temporarily/you_are_coming_to_work_in_the_netherlands/30_facility_for_incoming_employees/

ever necessary to attract skilled migrants, and is arguably distortionary, so although the concerns of those affected by its withdrawal are understandable, the case for retaining it (or replicating it elsewhere) seems very weak.

In the Northern Italian agricultural sector, by contrast, the nature of the relatively successful experience of migration, while again reflecting the interplay of demand and supply at a sectoral level, is very different. Overall, the Italian labour market remains weak in both structural and cyclical terms, with high levels of youth unemployment; there is no sense in which, overall, Italy has a shortage of labour. Moreover, the agricultural sector was (in relative terms) in decline, certainly in terms of labour demand; nevertheless, its relative unattractiveness to national workers, particularly younger ones, meant that there was still excess demand, which attracted migrants who possessed the right combination of skills and, perhaps more importantly, attitudes to work. And, despite the fact that -again in contrast to the Dutch experience with IT - agriculture is a relatively low productivity sector, it nevertheless appears that Indian migrants were associated with productivity growth and efficiency gains in this sector, enabling it to continue to expand output despite facing difficult structural economic challenges.

As with the Dutch experience, however, "flexibility" was key, but in Italy this was not driven (at least not deliberately) by policy, but by first a relatively lax approach to the enforcement of immigration restrictions (allowing migrants to arrive and to access employment in the first place by irregular means), and then by subsequent regularisation programmes (including allowing migrants

to be joined by family members). Crucially, regularisation and family reunification allowed migrants who would otherwise have remained in at best insecure and precarious conditions (and would mostly have been unaccompanied men) to establish themselves and their families and to become gradually more integrated in the Italian economy and labour market. This has also allowed upward occupational and sectoral mobility.

In particular, as with the Dutch experience but in a very different context, flexibility - both of the immigrants themselves in their approach to work and their careers, and of the policy environment - was key both to allowing migrants to fill jobs which required such flexibility in a context when locals were not able or did not want to do so, and in enabling further occupational and sectoral mobility; this emerges clearly from our limited qualitative research, where the degree of such mobility is notable.

The contrast between the relatively positive experience of Indian migrants and some more recent migrants flows (particularly from Africa) to Italy and other EU countries again suggests that there are lessons to be learned; regularisation programmes, particularly if they facilitate family reunification and labour market integration, can allow groups of migrants who might otherwise be trapped more-or-less permanently in precarious working and living positions to have positive economic and social outcomes, both for themselves and for the host country.



6. REFERENCES

- Bal, E. (2012). "Country report: Indian migration to The Netherlands", Migration Policy Centre, CARIM -India Research Report 2012-07.
- Barone, G, and S Mocetti (2011), "With a little help from abroad: The effect of low-skilled immigration on the female labour supply". *Labour Economics* 18(5): 664-675.
- Beerepoot, N. and Roodhevel, I., (2016) "Internationalization strategies of emerging market-based multinationals: integration of Indian ICT-ITES companies on the Dutch service outsourcing market", *European Planning Studies*, 24:7, 1374-1391.
- Boubtane, E., Dumont, J. C., & Rault, C. (2016). Immigration and economic growth in the OECD countries. *Oxford Economic Papers*, 8 : (4), 562-582.
- Burgers, J., & Touburg, G. (2013). "International mobility of professional knowledge from the global South: Indian IT workers in The Netherlands". *Global Networks*, 13(4), 517-534)
- Campo, F., Forte, G., and Portes, J (2018), "The Impact of Migration on Productivity and Native-born Workers' Training", Migration Advisory Committee, September 2018.
- Clemens, M., Lewis, E and Postel, H. (2018). Immigration Restrictions as Active Labor Market Policy: Evidence from the Mexican Bracero Exclusion. *American Economic Review*, 108 (6): 1468-87.
- Compiani, MJ. Quassoli, F., 2005. "The milky way to labour market insertion: the Sikh "community" in Lombardy", in E. Spaan, F. Hillmann, & T. Van Naerssen, eds. "Asian Migrants and European Labour Markets: Patterns and Processes of Immigrant Labour Market Insertion in Europe". London: Routledge, pp. 138-158.
- Costas-Fernandez, J. (2018), Examining the Link between Migration and Productivity, Working Paper, University of Essex
- Engbersen, G et al. (2011) Destination Netherlands: The Evolution of Migration from Six Origin Countries to The Netherlands. Theorizing the Evolution of European Migration Systems (THEMIS)
- Fasani, F. (2009) 'Undocumented migration in Italy: A country report'. CLANDESTINO project - Counting the Uncountable. Data and Trends Across Europe - 6th FP - European Commission
- Foged, Mette, and Giovanni Peri. (2016), "Immigrants' Effect on Native Workers: New Analysis on Longitudinal Data." *American Economic Journal: Applied Economics*, 8 (2): 1-34.
- Gardani et al., 2002. "Turbani che non turbano: Ricerca sociologica sugli immigrati indiani nel cremonese". Provincia di Cremona: Osservatorio provinciale sull'immigrazione.
- Hunt, J. (2017). "The Impact of Immigration on the Educational Attainment of Natives". *The Journal of Human Resources*, Fall 2017 vol. 52 no. 4 1060-1118
- Hunt, J., and M. Gauthier-Loiselle (2010) "How Much Does Immigration Boost Innovation?" *American Economic Journal: Macroeconomics* 2(2):31-56.
- Jaumotte, F, K Koloskova and S C Saxena (2016), "Impact of migration on income levels in advanced economies", Spillover Task Force, International Monetary Fund, November 2016.
- Kerr, W.R. & Lincoln W.F (2010), "The Supply Side of Innovation: H-1B Visa Reforms and U.S. Ethnic Invention," *Journal of Labor Economics*, University of Chicago Press, vol. 28(3), pages 473-508, 07
- Kerr, S, and Kerr, W. (2011). Economic Impacts of Immigration: A Survey. NBER Working Papers 16736, National Bureau of Economic Research, Inc.
- Kirk, K , Bal, E, and Janssen, R. (2017) "Migrants in liminal time and space: an exploration of the experiences of highly skilled Indian

- bachelors in Amsterdam", *Journal of Ethnic and Migration Studies*, Volume 43, Issue 16, 2017.
- Krugman, P (1990), "The Age of Diminished Expectations", *U.S. Economic Policy in the 1990s*, Briefing Books, Washington Post Company. pp11
- Lum, K., 2012a. Indian Diversities in Italy: Italian Case Study, CARIM-India RR2012/02, Robert Schuman Centre for Advanced Studies, San Domenico di Fiesole (FI): European University Institute.
- Lum, K., 2012b. The Quiet Indian Revolution in Italy's Dairy Industry, CARIM-India RR2012/02, Robert Schuman Centre for Advanced Studies, San Domenico di Fiesole (FI): European University Institute.
- McHenry, Peter. (2015). "Immigration and the Human Capital of Natives". *Journal of Human Resources*. 50(1) pp 34 -71.
- Migration Advisory Committee (2018), "EEA Migration in the UK", Migration Advisory Committee, September 2018.
- Millar, J & Salt, J. (2008). Portfolios of mobility: The movement of expertise in transnational corporations in two sectors - Aerospace and extractive industries. *Global Networks*. 8. pp 25 - 50
- Mitaritonna, C., Oreficie, G. and Peri, G. "Immigrants and firms' outcomes: Evidence from France", *European Economic Review*. Volume 96, July 2017
- Mountford, A, and J Wadsworth (2018), "Jumping Someone Else's Train? Does Immigration Affect the Training and Hiring of Native Born Workers", Migration Advisory Committee, September 2018.
- OECD (2013), "International Migration Outlook", OECD Publishing.
- OECD (2016), "Recruiting immigrant workers: The Netherlands", Organisation for Economic Cooperation and Development, September 2016.
https://read.oecd-ilibrary.org/social-issues-migration-health/recruiting-immigrant-workers-the-netherlands-2016_9789264259249-en#page24
- Peri, G (2012), "The Effect Of Immigration On Productivity: Evidence From U.S. States," *The Review of Economics and Statistics*, MIT Press, vol. 94(1), pages 348-358, 07
- Peri, Giovanni, and Chad Sparber (2009), "Task Specialization, Immigration, and Wages." *American Economic Journal: Applied Economics*, 1 (3): 135-69.
- Portes, J (2018), "The economic impacts of immigration to the UK", VoxEU, April 2018.
- Povoledo, E., 2011. "In Italian Heartland, Indians Keep the Cheese Coming", *The New York Times*, September 7, 2011.
<http://www.nytimes.com/2011/09/08/world/europe/08iht-italy08.html?pagewanted=all>.
- Sleurink, J et al. (2016) "Foreign knowledge workers in the Netherlands: Factors influencing attraction and retention in The Netherlands", unpublished master's thesis.
- Smith J (2018), Migration, Productivity and Firm Performance, A Report for the Migration Advisory Committee (UK), University of Warwick, unpublished master's thesis.

ILO Decent Work Team for South Asia and Country Office for India

India Habitat Centre, Core 4B, 3rd Floor,
Lodhi Road, New Delhi 110003, India

Tel: +91 11 47509200, Fax: +91 11 24602111

Email: delhi@ilo.org | www.ilo.org/india