Economic effects of integration policies of migrants

GUILLEM LÓPEZ I CASASNOVAS
GABRIEL FERRAGUT
ANA MOSTERIN
CATIA NICODEMO

This article sketches the economic effects of the Welcome Programme proposed by the Secretariat of Migration of the Department of Social Action and Citizenship of the Government of Catalonia. Social benefits expected from implementing the programme are assessed, the aim of which is to facilitate acquisition of skills and necessary human capital among migrants to increase labour adaptation and social integration. Also fiscal returns (taxes and social welfare contributions) are estimated, which based on the cost of the programme for each potential beneficiary could help fund its cost totally or in part.

It is important to point out that for the assessment of salary bonuses, it has been decided to start calculating benefits from the lower threshold, i.e. salaries with low social welfare contributions and moderate bonuses.*

* At roughly 800 euros monthly, by current standards only four months of social welfare contributions during the year after arriving – both factors have been empirically observed with groups expected to be the beneficiaries of the programme – with an employee rate of two thirds on the beneficiary population (except elderly, including existing unemployment and children attending school till the age of 14).

Cost and benefit of the programme

The assessment of benefits is based on those aspects in which the Welcome Programme has a larger impact::

▸ **Impact of basic linguistic skills**, as acknowledged by the labour market and reflected in the according salary bonus. The bonus is estimated empirically based on the initial salaries resulting from this knowledge and quantified out of the minimum threshold regarding data observed for Spanish.

▸ **Knowledge of the environment**, acknowledged as an assimilation bonus reflected in a salary increase, based on the employee's stay in the country. Aspects such as knowledge of the social setting, labour market, development of professional contact networks and information on access to public services as potential users are observed. This bonus is calculated based on what is stated now as a payment increase after staying for a given amount of years in the country.

▸ **Improvement of social capital** in general, based on benefits derived from other social externalities. The aim is to assess the economic benefit created by the imple-

mentation of the programme in order to prevent deterioration of the social capital and cohesion as factors contributing to economic growth. This is indirectly quantified through information available at the database of the Instituto Valenciano de Investigaciones Económicas (IVIE) – Fundación BBVA.

Calculation of social benefits

For the two first commented effects (bonus for linguistic skills and knowledge of the environment) a model with data from the Social Security register has been created based on the function of human capital performance (MINCER 1974),[1] often used in studies on salaries in the migrant labour market:

$$LnY_i = b_0 + b_1S_i + b_2T_i +$$
$$+ b_3T_i^2 + b_4(ADMi) +$$
$$+ b_5(ADM_i)^2 + e_i$$

ewhere LnY_i is the natural logarithm of the income from work of the individual 'i'; Si is the extent of training of the individual equivalent to full school years; Ti contains the cumulated labour experience (in both the countries of origin and destination); and ADM_i is the number of years of stay at the country of destination since migration. These last two variables reflect the acquisition of skills through formal and informal training at work and by living

in the country of destination.[2] Thus the acquisition of linguistic skills can be considered another way of cumulating human capital, so the basic equation of human capital income can be extended to include this item:[3]

$$LnY_i = b_0 + b_1S_i + b_2T_i +$$
$$+ b_3T_i^2 + b_4(ADM_i) +$$
$$+ b_5(ADM_i)^2 + b_6 LING_i + e_i$$

where $LING_i$ represents the individual's level of language fluency and ei represents the stochastic error.

The acquisition of linguistic skills can be considered another way of cumulating human capital.

With data from the Social Security register it is possible to analyse the influence on remuneration of the insured while keeping all the rest at the same level: linguistic gap, length of stay and sort of jobs taken. The adjustment for previous training of each migrant's human capital is neutralised with the appropriate information from the registry. This *Mincerian* estimate (MINCER, 1974) identifies the bonus of linguistic skills (that for Spanish would serve as a minimum threshold as to Catalan, which could be given an extra bonus as it is the country's own language) and a permanence bonus (learning social

knowledge and adaptation) in observed salaries.

To analyse the salary differentiation process, a database from the *Muestra Continua de Vidas Laborales* ('Continuous Service Live Sample', MCVL) is used. This statistical source results from random sampling on 4% of the total population having had any kind of relation with Spanish Social Security between 2004 and 2006 (three first editions). These data have been merged with those from the Municipal Resident Registry, in some cases even with the Revenue Authority.

The aim of this is to examine if individuals with a mother tongue similar to the local language of their country of destination enter the labour market with a higher salary compared to those who arguably are not in command of the language, even if they have the same personal profile. To do so, we took as a base for comparison individuals from Africa and from South America who are registered at the Social Security and live in Catalonia or work at a company registered with the Social Security in Catalonia, and having registered in 2004 for the first time. These two groups are compared to each other instead of using the average Catalan population as a benchmark since there is a higher degree of similitude in all except linguistic skills (the former having less command of the

language for social interaction than the latter, who at least speak Spanish).

The linguistic skill bonus

The sample includes 2113 South Americans and 1174 Africans. The declared average salary in the contribution base of South Americans is 732 euros a month, whereas that of Africans is 687 euros. The monthly salary has been calculated based on the contributions paid by individuals to the Social Security over the year 2005.

The estimate shows that there is a salary gap of 4.1% between South Americans and Africans, that is, South Americans entering the labour market knowing at least one of the country's vehicular languages, being newcomers and having the same profile as Africans earn a higher salary. Let us remember that this is considered the minimum threshold salary as the value of Catalan as Catalonia's own language is likely to be assessed higher than Spanish.

The part corresponding to allocations is equal at -9% (i.e. if Africans had the same profile as South Americans, they still would earn a lower salary), while the discrimination effect, certainly due to the difference in language, is positive at 13%, which shows that when Africans find their first job in the labour market,

they earn a salary 13% under that of South Americans. On an average monthly salary of €687, assuming that this group pays social contribution four months a year in average on this amount, and being 66% of migrant population, this would yield an annual amount of €184 per capita among Africans.

When Africans find their first job in the labour market, they earn a salary 13% under that of South Americans.

The assimilation bonus

The second item in the estimate, which can also be calculated based on MCVL data, relates to examining the remuneration bonus associated to the assimilation process of these migrant groups in the Catalan labour market, which we called «assimilation bonus» before.[4]

To study it, we created another sample, made of 2348 South Americans and 2130 Africans contributing to Spanish Social Security in 2001 for the first time and having quit the Social Security system after 2004, in order to frame the learning period. We find individuals having had more than one job over these years (they are likely to have exited the labour market at a given point and then returned later), thus having been in

contact with the labour market as a means of socialisation, even if they worked only twice in four years. The average initial monthly salary for Africans and South Americans is 839 and 875 euros, respectively.

Using the same estimation method as in the previous case, it comes out that the salary gap has increased by 3% with respect to the language bonus estimate, being now 7%. From this can be inferred that after four years, South Americans are better positioned in the labour market than Africans. Differentiation is reduced, as it is 9% now, and so is the difference between features of both groups (-2%), though it is still negative.

In order to find a specific value of the growth rate in one same group based on its initial salary (and not a differential between groups), we did the following:

▸ **Africans with Africans.** We have selected African migrants who registered at the Social Security in 2004 for the first time. Thus we have a sample of 1174 Africans contributing in 2005, that is, they entered the labour market in that year. Now we take the other sample, made of Africans who contributed to Spanish Social Security in 2001 for the first time and having quit after 2004, that is, they have been in the labour market for at least four years.

Then we apply the model again, always adjusted by the same vector of features in order to neutralise other differences than those due to the time differential (the variable we are using as an approach to the assimilation bonus), and it comes out that the salary gap between Africans having been in the labour market for four years and those having contributed during one year only is 24.5%. Of these 24.5%, 15% amount to the advantages obtained for having stayed these years in terms of more capacity, which the first group has not yet (expertise, language, education, etc.) and which is the object of the programme.

▸ **South Americans with South Americans.** In order to assess the differential in percentage rates, we selected, in a similar way as before, South Americans who registered at the Social Security in 2004 for the first time. We thus obtained a sample of 2113 South Americans who contributed to the Social Security in 2005, that is, those who entered the labour market more recently. Applying the same procedure as with the previous group, we obtain a salary gap of 27.8% between South Americans having been in the labour market for four years and those having contributed during one year only. Of these 27.8%, 11.5% amount to the different features within the group, probably due to the bigger

capacities developed in these years than the first group.

The analysis of salary improvement associated to the assimilation process shows that after four years, South Americans are better positioned in the labour market than Africans.

Overall, these results move between 11.5% in the case of South Americans (for them, the time-related assimilation gain in knowledge of the environment is not that high) and 15% for Africans. Thus any action based on the programme accelerating this knowledge would produce an average yearly performance between slightly more than 2.9% and 3.75%. The impact we supposed to be exhausted after four years is likely not to be lineal, but we will assume it as there are no other founded hypotheses.

It turns out by chance that the four-year assimilation bonus is equivalent to that of linguistic skills (a rough average 13% in both cases).

Taking the mean figure of 13% for all four years, it would add a quarter of the previous figure (€46 per year) to the comparison. The total sum of both bonuses thus yields an income differential

of €230 yearly, which for the social welfare contribution rate at 24% due to a higher income would lead to additional Social Security revenue of €55 per year. Compared to the estimate programme cost of €865 per person yearly, amortisation would be close to 15 years. As has been commented before, any implementation incidence in a higher group (employment induction) or consideration of a calculation base for contribution of groups with a higher potential initial income (South Americans) would change the above-mentioned figures.

Estimate by indirect metrics

Although we cannot reproduce the calculations of the effect of linguistic skills or years of stay on the income of migrants due to a lack of salary data in the registry, we are able to analyse the effects of the length of stay on the likeliness of finding a job (or a place to study) as a first approach. We have been working with data on Catalonia from an anonymous 5% sample of the 2001 census by the Spanish National Institute of Statistics (INE) within the age group between 16 and 65, considering those studying or working vs. inactive ones (household), pensioners or unemployed. We took off the sample those receiving invalidity allowance. Based on this,

employment grows at an annual 5.7% in the first three years after arrival.

Investment in the Programme for Labour Guidance and knowledge of Catalan society can lead to an employment increase of 5.6%.

According to the available data on the effect of the stay on the employment level of migrants in the 1999-2001 period – in the registry sample for Catalonia, and assuming that the Programme for Labour Guidance and knowledge of Catalan society provides effective knowledge and expertise equivalent to one year stay in Catalonia – investment in this area can lead to an employment increase of 5.6% in the near future. Of course, one part of this effect intertwines with the benefit from learning the language.

In any case, the differential in men as compared to natives related to employment likeliness of non-EU migrants is 17% (Africans are below average at 10%), always between comparable individuals. Hence no general initial linguistic skill bonus is detected. However, the composition by age and gender still could explain the difference (the less familiar regroupment, the higher average employment among this group).

In the case of women, the opposite applies. Latino women feature a 10-point differential instead of 16 points, which is the overall average compared to natives. Assimilation reduces the average differential from seventeen to three points within five years, and the most significant reduction takes place during the first year of residence: within one year, the differential goes down from seventeen to six percentage points, so any effect of the programme in the first year yields a very high profitability. Also, the opportunity cost of non-existence of the programme is likely to be much lower if does not affect the first year.

Assimilation reduces the average differential from seventeen to three points within five years among Latino women. The most significant reduction takes place during the first year. Any effect of the programme in the first year yields a very high profitability.

Indeed, analyses show that the two first years are decisive to close the gap. In this respect, Africans are those with the lowest assimilation rate – after five years, they still maintain a 5-point differential – and

it can be said that variation in skills is the point explaining this. As to migrant women, their employment level after five years is eventually higher in the case of Latino ones, though within quite a low employment range, as we will see. This is not the case of African women, who keep a differential as high as African men. Difference in skills, rather than the linguistic skill bonus and that of knowledge of the country, by this order, may be the cause.

African women should be the prime objective of the Welcome Programme based on achievable benefits.

Related to the sort of job, adjusted by characterisation of individuals, the salary range in which migrants are featured as a whole (generally speaking, all) is lower than with natives (40% of migrants concentrate on the five worst paid jobs). But mobility reached with time (five years) among Latinos is quite high. The reason cannot be the language here (they already speak it) but social interaction; this is not the case of African migrants, who are less mobile, especially women, for which even no change of range is stated. So it seems that African women should be the prime objective of the

Welcome Programme based on achievable benefits.

Social capital

Based on the first calculation, an approach is made to the most intangible, less market-driven benefits, which are also an effect of the Welcome Programme and crystallise in higher cohesion (social capital). They can be assessed, among others, by means of cost reduction of social emergency programmes and non-contributory benefit payments at local level[5] or by reducing other correctional action to maintain acceptable inequality levels in the light of emerged social difference. The guiding principle in calculating a shadow value that reflects improvement of social cohesion and social capital, attributable to the estimated welcome scheme, takes the arrangement of social capital indices developed the IVIE – BBVA Foundation as a base, in both a temporary and a transversal series (by provinces in Spain and by OECD countries).

The value of social capital increases when the GDP per capita of a province grows, while it decreases when the foreign population rate as of total population is higher.

This allows to do regressions against relative variation, preferably of migration flows (in our case of migrant population) in the social fabric (rate of the structure of natives as of newly arrived migrants), controlled by the income increase in order to isolate the effect of a variable on the other. Specifically, the model we regarded, based on its higher explanatory capacity and the significance of its regressors, does a lineal regression through minimal ordinary squares. In this regression, the value of social capital services (metrics of the volume of productive social capital) in different provinces is the dependent variable and the proportion of migrants on their total population and GDP per capita are the explanatory or independent variables for 2001. This is the last year with available information to work out this index.

Both in the simple regression as in that done on the logarithmic transformation of variables, the latter show how the value of social capital increases when the GDP per capita of a province grows, while it decreases when the foreign population rate as of total population is higher. Specifically, it is observed that when this proportion increases by 1%, the value of social capital services goes down 0.055%. From this result we can derive the economic benefit to be generated by implementing a

Welcome Programme that reduces relative deterioration of social capital and cohesion. For the evolution of the structure of the Catalan population for the following years, we formulate the hypothesis that beneficiaries of services rendered by the Migration Act do not cause deterioration as we estimated it in terms of social capital depreciation. The volume of Welcome Programme beneficiaries related to the migrant inflow[6] ranges between 41.67% in 2009 and 45.30% in 2015.

To know the additional revenue this income increase may generate, we have to use an indicator of tax collection elasticity. In a survey by J.L. Raymond and M. González-Páramo (1988) – which despite not being very recent is one of the most complete studies on tax collection elasticity in Spain, given the long time series analysed (1955-86) – the elasticity of tax collection based on GDP is estimated at 1.125. The regression includes other explanatory variables such as collection in previous years, GDP of previous years or deficit of Spanish public authorities. In another study (LÓPEZ CASASNOVAS and CASTELLANOS, 2005) a more simple calculation is made, however with updated data on Catalonia (1986-2001), in which an elasticity of 1.208 is estimated, quite close to the above-mentioned and which we will use for our case as it

is more recent, according to the following calculation:

$$\Delta\%T_t = \varepsilon_{PIB,t} \times \Delta\%PIB_t$$

To know the additional revenue this income increase may generate, we have to use an indicator of tax collection elasticity.

Main results

According to the assumptions made in doing the previous calculations, three scenarios have been defined based on the forecasts of economic development (GDP growth, inflation and salary income growth) and the influence of the impact on labour market conditions: conservative, moderately favourable and favourable.

In any case, the expected social effects and the resources the public sector can raise to fund this programme can be made out:

‣ Effects from implementing the Welcome Programme that will have a direct impact in the shape of additional benefits or salary income (higher remuneration from higher productivity) earned by potential beneficiaries of the programme (workers entering the labour market) as well as an indirect impact on economic growth

attributable to potential improvement of social cohesion.

‣ The increase of tax collection by different administrations from higher taxation of these new workers based on salary increases and inclusion of initially inactive population into the labour market.

Charts 1, 2 and 3 show a summary of aggregated results. (See next page)

Chart 4 shows a summary of costs expected from implementing the programme. (See next page)

Comments to observed results

A significant part of the programme cost (up to 30%) is recovered by the public sector through higher tax collection (income tax and social welfare contributions as well as other taxes based on economic growth and the component related to social capital improvement), while calculated social benefits amount to up to 70% of the programme cost.

The resulting net value (social benefits or additional tax revenue less programme implementation cost) should also include knowledge of Catalan as an additional bonus to that for Spanish. In this case, a higher social rating is observed, but it is difficult to identify and quantify it in economic terms. Just to illustrate it, if

Chart 1. Benefits associated to the Migration Act. Conservative scenario

SUMMARY OF BENEFITS								
ESTIMATED ECONOMIC BENEFITS FOR BENEFICIARIES								
Salary bonuses		2009	2010	2011	2012	2013	2014	2015
Linguistic skills	Empirical estimate	6,620,363	7,565,864	8,329,501	8,938,908	9,569,808	10,222,202	10,896,088
Environment knowledge	Empirical estimate	3,692,125	8,059,235	13,014,504	18,481,683	20,195,886	21,724,573	23,191,899
Social capital	Medium-low growth forecast	2,460,869	2,788,178	3,000,217	3,177,230	3,364,687	3,563,203	3,773,432
Total		12,773,357	18,413,276	24,344,223	30,597,821	33,130,381	35,509,978	37,861,419
ADDITIONAL COLLECTION PUBLIC SECTOR								
Migrant taxes		2009	2010	2011	2012	2013	2014	2015
From linguistic skill bonus	Empirical estimate	2,648,145	3,026,346	3,331,801	3,575,563	3,827,923	4,088,881	4,358,435
From envionment knowledge bonus	Empirical estimate	886,110	1,934,216	3,123,481	4,435,604	4,847,013	5,213,897	5,566,056
Economic growth								
Social capital	Medium-low growth scenario	1,149,694	1,302,609	1,401,672	1,484,371	1,571,948	1,664,693	1,762,910
Total		4,683,949	6,263,171	7,856,953	9,495,538	10,246,884	10,967,472	11,687,401

Source: Own

▲ It is estimated that two thirds of potential programme users will be able to earn the calculated salary bonuses upon entering the labour market.

Chart 2. Benefits associated to the Migration Act. Moderately favourable scenario (I)

BENEFIT CHART								
ESTIMATED ECONOMIC BENEFITS FOR BENEFICIARIES								
Salary bonuses		2009	2010	2011	2012	2013	2014	2015
Linguistic skills	Empirical estimate with estimate employment increase	6,991,103	7,989,552	8,795,954	9,439,487	10,105,717	10,794,645	11,506,269
Environment knowledge	Empirical estimate with estimate population increase	3,898,884	8,510,552	13,743,316	19,516,657	21,326,856	22,941,149	24,490,645
Social capital	Medium-low growth forecast	2,460,869	2,788,178	3,000,217	3,177,230	3,364,687	3,563,203	3,773,432
Total		13,350,856	19,288,282	25,539,487	32,133,374	34,797,260	37,298,997	39,770,346

Chart 2. **Benefits associated to the Migration Act. Moderately favourable scenario (II)**

ADDITIONAL COLLECTION PUBLIC SECTOR								
Migrant taxes		**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
From linguistic skill bonus	Empirical estimate with estimate employment increase	4,194,662	4,793,731	5,277,572	5,663,692	6,063,430	6,476,787	6,903,762
From environment knowledge bonus	Empirical estimate with estimate population increase	935,732	2,042,532	3,298,396	4,683,998	5,118,445	5,505,876	5,877,755
Economic growth								
Social capital	Medium-low growth scenario	1,149,694	1,302,609	1,401,672	1,484,371	1,571,948	1,664,693	1,762,910
Total		**6,280,088**	**8,138,873**	**9,977,640**	**11,832,061**	**12,753,824**	**13,647,356**	**14,544,427**

Source: Own

▲ A 5.6% increase above the reference employment figure and a 1% increase above inflation of the average salary index is expected.

Chart 3. **Benefits associated to the Migration Act. Favourable scenario**

BENEFIT CHART								
ESTIMATED ECONOMIC BENEFITS FOR BENEFICIARIES								
Salary bonuses		**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Linguistic skills	Empirical estimate with estimate employment increase	7,119,207	8,135,952	8,957,129	9,612,455	10,290,893	10,992,444	11,717,109
Environment knowledge	Empirical estimate with estimate population increase	3,970,327	8,666,498	13,995,147	19,874,278	21,717,646	23,361,519	24,939,408
Social capital	Medium-high growth forecast	2,472,488	2,788,178	3,014,383	3,192,231	3,380,573	3,580,027	3,791,248
Total		**13,562,022**	**19,590,627**	**25,966,659**	**32,678,964**	**35,389,112**	**37,933,990**	**40,447,765**
ADDITIONAL COLLECTION PUBLIC SECTOR								
Migrant taxes		**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
From linguistic skill bonus	Empirical estimate with estimate employment increase	4,271,524	4,881,571	5,374,278	5,767,473	6,174,536	6,595,467	7,030,265
From environment knowledge bonus	Empirical estimate with estimate population increase	952,878	2,079,959	3,358,835	4,769,827	5,212,235	5,606,765	5,985,458
Economic growth								
Social capital	Medium-high growth scenario	1,155,122	1,308,759	1,408,290	1,491,379	1,579,370	1,672,553	1,771,234
Total		**7,731,779**	**9,804,627**	**11,789,802**	**13,766,544**	**14,793,308**	**15,790,797**	**16,791,054**

Source: Own

▲ A 1% increase above inflation of the average salary index is expected.

Chart 4. **Summary of expected costs**

COST OF LAW							
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Total implementation cost Migration Act	41,288,940	47,130,474	53,161,624	56,427,196	59,692,767	62,958,339	66,223,910
Net additional cost Government of Catalonia	33,306,700	38,908,767	44,693,266	47,693,124	50,692,982	53,692,840	56,692,698
* According to the February 2008 initial forecast.							

Source: Secretariat of Migration, Department of Social Action and Citizenship, Government of Catalonia

▲ A significant part of the programme cost is recovered by the public sector.

we considered a 10% plus on the above-mentioned bonuses, it would mean an additional benefit increasing the language bonus position by around 5% in each of the three scenarios.

However, it is necessary to point out what can be considered the combined effect of the different positive factors the programme cannot create, not only with the inclusion of more taxpayers into the labour market but also in the effectiveness of the programme scope above the regarded metrics. Some economic effects encouraging the reduction of the gap between public and social revenue and cost that are most likely to occur are a higher tax basis as workers would leave the black market, more normalised taxation as to effective migrant rate on the total population, etc. Additional revenue from indirect local taxation (general and specific consumption, property, savings, remittances, etc.) associated

to increased income for beneficiaries is another part to it. As to the overall effect on economic growth, our analysis has only done a plausible calculation of benefits from economic improvement of integration for the social capital, according to tax collection elasticity (effect calculated according to IVIE data, not those of beneficiaries, which we suppose are subject to lower taxation), but not for the rest. This option might be more challengeable, besides eroding the credibility of all the assessment done, as some might consider it.

The additional effect of job creation linked to the action of the programme itself, either directly or induced by delivering some services to be developed in the programme externally, could be considered in a similar way. This impact has not been calculated here under normal labour market conditions given its distributive transfer character. From a social assessment perspective,

this assessment is to be completed with global benefits (positive externalities) for the whole community, that is, indirect benefits for relatives of programme users in the shape of higher welfare (higher employment and higher remuneration for assets also means a better living standard for taxpayers: human capital paying more and better attention to education of their children, more care of the social environment against exclusion of worse-off people, etc.). Additionally, the benefit for the rest of the society could be assessed in terms of all those factors not considered in the social capital indicators used by the IVIE methodology, like reduced precarious labour, less need for public and private action in social emergency situations, etc.

If these factors were given a shadow value equivalent to 14.5% of the rest of benefits from the onset – though decreasing considerably in the following years till they reach about 40% from the

fourth period onwards – the programme would reach its net positive value level. This relative amount seems quite reasonable given the importance and the multiplying effect of not calculated externalities, as we already mentioned, particularly in a context of strong impact on the social and cultural fabric created by such a strong migration wave like the one experienced in Catalonia in the last decade, in which political action with a true social welcome programme has been absent.

GUILLEM LÓPEZ I CASASNOVAS

PhD in Public Economics from the University of York and degree in Economic Sciences and Law from the University of Barcelona. Full professor of Economics at the Pompeu Fabra University and board member of the Bank of Spain.

A former vice-rector of Economics and International Relations and dean of the Faculty of Economic Sciences at the Pompeu Fabra University as well as professor of Public Finance at the University of Barcelona, visiting scholar at the Institute of Social and Economic Research, the University of Sussex and the Graduate School of Business in Stanford.

He created and directed the Centre Especial de Recerca en Economia i Salut (CRES-UPF).

A member of the managing board of the Casa de les Llengües and the advisory council of Òmnium Cultural. He obtained the prize of the Catalan Society of Economics, the Joan Sardà Dexeus and Ramon Llull prizes.

GABRIEL FERRAGUT

Associate professor at the Department of Economics and Enterprise and researcher at the Research Centre of Economy and Health of the Pompeu Fabra University

ANA MOSTERIN

Associate professor at the Department of Economics and Enterprise and researcher at the Research Centre of Economy and Health of the Pompeu Fabra University

CATIA NICODEMO

Associate professor at the Department of Applied Economics of the Autonomous University of Barcelona and researcher at the Institute for the Study of Labor (IZA)

Notes

1. It seems to be very likely that the variable on the length of stay in the country of destination has a different effect, additional to acquisition of linguistic capital and knowledge of the medium.

2. These two terms are included in the box as economic theory and previous empirical studies have proven that the income rise decreases in the labour market and in the destination over the years. Cf. Ben-Porath 1967, Mincer 1974, Chiswick 1978.

3. Cf. McManus et al. (1981); Tainer (1988); Chiswick (1991; Chiswick i Miller (1992, 1995, 1998).

4. The programme, for instance, provides for 10-12 hours of overall labour knowledge (rights, making a CV, how is a contract, etc.), a visit to the Employment Service of Catalonia (SOC), personal attention and registration as job applicant. This can have a big impact as most of re-cent migration is family-based (in 2007, 53,000 authorisations for family regroupment were given in Catalonia, as opposed to 35,000 working permits given). Much of this population believes that they cannot work (the permit says «permit of residence without authorisation to work») though they can do it if they go through a relatively simple procedure at the Government delegation and have a job offer. The effect on this increase of the activity rate, especially with young and women, can be quite relevant based on the current economic situation. In June, roughly 80,000 regrouped relatives were counted in the province of Barcelona, of which 5000 were older than 65 and 25,000 under 6; from the remaining 50,000, only 1000 were registered at the Social Security, which shows the importance of the above-mentioned differential. As a result, it is not that salaries in this subgroup can raise by 4% or 12%, but it is about having a salary where there is none today, though it is li-kely that not all will eventually enter the labour market.

5. In cost accounting , the average use of social services by migrants in a sample of 50 municipalities in the province is known from available information (usage statistics by the Barcelona Provincial Authority). By setting shadow prices, we know the potential reduction of marginali-sation and crime the use of mechanisms for social cohesion may be causing.

6. In this case, we also consider that the average initial yearly volume observed for the 2001-2006 period is maintained (INE, Estadística de Variaciones Residenciales, 2007).

7. GDP in constant values as the only variable explaining collection in constant values.

8. According to the initial forecast made in September 2008.

Reference

Abbot, M.G.; Beach, C.M. (1987). *Immigrant Earning Differentials and Cohort Effects in Canada.* Discussion paper núm. 705. Institute for Econo-mic Research, Queen's University.

Aldàs, J.; Goerlich, F.; Mas, M. (2007). *Consumo de los hogares y distribución de la renta en España (1973-2003). Una perspectiva regional.* Funda-ción Caixa Galicia.

Alexander, M.A. (2007). «Determinants of Social Capital: New Evidence on Religion, Diversity and Structural Change». *British Journal of Poli-tical Science*, 37: 2, p. 368-378.

Amuedo-Dorantes, C.; De la Rica, S. (2007). «Labour Market Assimilation of Recent Immigrants in Spain». *British Journal of Industrial Rela-tions*, 45:2, p. 257-284.

Amuedo-Dorantes, C.; De la Rica S. (2007). *Immigrants' Responsiveness to Labor Market Conditions and their Impact on Regional Employment Disparities: Evidence from Spain.* FEDEA, discussion paper, 34.

Ben-Porath, Y. (1967). «The Production of Human Capital and the Lifecycle of Earnings». *Journal of Political Economy,* 75, p. 352-365.

Bermane et al. (2000). *Language-Skill Complimentarity: Returns to Immigrant Language Acquisition.* Boston: Boston University.

Borjas, G. J. (1995). «The Economic Benefits from Immigration». *The Journal of Economic Perspectives,* 9: 2, p. 3-22.

Castellanos, A.; López Casasnovas, G. (2005). «El uso del análisis coste-beneficio en la estimacióin de la posibilidad de rescate de las auto-pistas». *Ekonomiaz,* I: 60, p. 168-191.

Cheong, P. H.; Edwards, R.; Goulbourne, H.; Solomos, J. (2007). «Immigration, Social Cohesion and Social Capital: A Critical Review». *Cri-tical Social Policy*, vol. 27, núm. 1, p. 24-49.

Chiswick, B.R. (1991). «Speaking, Reading, and Earnings among Low-skilled Immigrants». *Journal of Labor Economics*, 9, p. 149-170.

Chiswick , B.R.; Miller, P. (1992). «Language in the Immigrant Labor Market». In: B.R.Chiswick, (ed.). *Immigration, Language and Ethnic Is-sues: Canada and the United States*. Washington DC: American Enterprise Institute, p. 229–296.

Chiswick , B.R.; Miller, P. (1988). «Earnings in Canada: The Roles of Immigrant Generation, French Ethnicity, and Language». *Research in Po-pulaiton Economics*, 6, p. 183-224.

Chiswick , B.R. (1978). «The Effect of Americanization on the Earnings of Foreign-born Men». *Journal of Political Economy,* 86: 5, p. 897-921.

Chiswick , B.R.; Miller, P.W. (1995). «The Endogeneity Between Language and Earnings: International Analyses». *Journal of Labor Economics*, 17, p. 151-200.

Chiswick , B.R.; Miller, P.W. (2007). *The Economics of Language, International Analyses.* Routledge Studies in the Modern World Economy. Lon-dres: Routledge.

Chiswick , B.R.; Repetto, G. (2001). «Immigrant Adjustment in Israel: Literacy and Fluency in Hebrew and Earnings». In: Djajic, S. (ed.), *Inter-national Migration: Trends, Policy and Economic Impact.* New York: Routledge, p. 204-228.

COLECTIVO IOÉ (1998). *Trabajadores inmigrantes en el sector de la construcción.* Madrid: Ministerio de Trabajo y Asuntos Sociales, Instituto de Migraciones y Servicios Sociales (IMSERSO).

Conde-Ruiz, J.I.; García, J.R.; Navarro, M. (2008). «Inmigración y crecimiento regional en España». Colección Estudios Económicos 09-08, Serie Inmigración, CÁTEDRA Fedea – Grupo Banco Popular.

CONSEJO ECONÓMICO Y SOCIAL (2004). *Informe sobre la inmigración y el mercado de trabajo en España*. Madrid: CES.

CRETICOS, P.A.; SCHULZ J.M., BEEPER, A.; BALL, E. (2006). *The Integration of Immigrants in the Workplace.* Oak Park: Institute for Work and Economy.

DELEGACIÓN DEL GOBIERNO PARA LA EXTRANJERÍA Y LA INMIGRACIÓN. *Anuario estadístico de extranjería 2000-2006.* Observatorio Permanente de la Inmigración. Available at: http:// www.mir.es/dgei.

DEVRIES, J.; VALLÉE, F.E. (1980). *Language Use in Canada.* Ottawa: Statistics Canada.

DEVORETZ, D. (2006). «Immigration Policy: Methods of Economic Assessment». *International Migration Review*, 40:2.

DIPUTACIÓ DE BARCELONA (2007). *Indicadors de gestió de serveis municipals. Guia d'interpretació. Resultats any 2006.* Barcelona: Diputació de Barcelona.

EUROPEAN COMISSION DIRECTORATE-GENERAL FOR JUSTICE, FREEDOM AND SECURITY (2004). *Handbook on Integration for Policy-Makers and Practitioners.* Brussels: European Commission.

FERNÁNDEZ-HUERTAS, J.; FERRER I CARBONELL, A. (2008). *Immigration in Catalonia.* Mimeo.

GENERALITAT DE CATALUNYA. Diverses ressenyes i estudis sobre usos lingüístics en l'àmbit econòmic. Secretaria de Política Lingüística http://www.gencat.cat/presidencia/llengcat. Retrieved in February 2008.

GLAESER, E.; LAIBSON, D.; SACERDOTE, B. (2002). «An Economic Approach to Social Capital». *Economic Journal*, 112 (483, Nov), p. 437-458.

GRIN, F.; VAILLANCOURT, F. (1999). *The Cost-effectiveness Policies: Case Studies on Wales, Ireland and the Basque Country.* Flensburg: European Centre for Minority Issues.

HUDSON, M.; PHILLIPS, J.; RAY, K.; BARNES, H. (2007). *Social Cohesion in Diverse Communities.* London: Joseph Rowntree Foundation.

IDESCAT (2006). *Sondeig a la immigració. Estudi pilot sobre el perfil de la immigració marroquina, equatoriana, romanesa i xinesa instal·lada a Catalunya.* R. 357. Barcelona: Generalitat de Catalunya.

INE (on-line): *Estadística de Variaciones Residenciales. Metodología.* INEBASE, Web INE. Retrieved in February 2008.

INTERVENCIÓN GENERAL DEL ESTADO (2006). *Avance de la actuación presupuestaria de las Administraciones Públicas.* Madrid: Ministerio de Economía y Hacienda.

IZQUIERDO A. (dir.) (2003). *Inmigración: Mercado de trabajo y protección social en España.* Madrid: Consejo Económico y Social, Colección Estudios.

IZQUIERDO, A. (dir.) (2006). *Demografía de los extranjeros. Incidencia en el crecimiento de la población.* Bilbao: Fundación BBVA.

IZQUIERDO M.; JIMENO, J.; ROJAS, J. (2007). *On the Aggregate Efects of Immigration in Spain.* Banco de España. Documentos de trabajo núm. 0714.

JEAN, S.; CAUSA, O.; JIMÉNEZ, M.; WANNER, I. (2007). «Migration in OECD Countries: Labour Market Impact and Integration Issues». *OECD, Economics Department Working Papers*, 562.

JIMÉNEZ, J.C. (2006): *La economía de la lengua: una visión de conjunto.* Madrid: Documentos de Trabajo del ICEI-Fundación Telefónica.

LARIOS, M.J.; NADAL, M. (2007). *L´estat de la immigració a Catalunya. Anuari 2006. Anàlisi jurídica i sociodemogràfica (Vol I). Recull estadístic i legislatiu (Vol II).* Barcelona: Fundació Jaume Bofill.

LÓPEZ CASASNOVAS, G. (dir.) (2007). *Inmigración y transformación social en Cataluña (Vol I). Aspectos socioeconómicos del fenómeno inmigratorio: las cuestiones relevantes.* Barcelona: Fundación BBVA and Institut d'Estudis Autonòmics.

MARTIN, W.M.; LOMPERIS, A.E. (2002). «Determining the Cost Benefit, the Return on Investment, and the Intangible Impacts of Language Programs for Development». *TESOL Quarterly*, 36: 3, p. 399-429(31).

McMANUS, W.; GOULD, W.; WELCH, F. (1981). «Earnings of Hispanic Men: The Role of English Language Proficiency». *Journal of Labor Economics*, 1:101-0.

MINCER, J. (1974). *Schooling, Experience and Earnings.* New York: National Bureau of Economic Research.

MOTA, F. (2002). «El capital de las autonomías: ¿explica el capital social por qué unas comunidades autónomas funcionan mejor que otras? In: SUBIRATS I HUMET, J.; GALLEGO CALDERÓN, R. *Veinte años de autonomías en España: leyes, políticas públicas, instituciones y opinión pública.* Madrid: Centro de Investigaciones Sociológicas, p. 293-320.

OLIVER J. (2006). *España 2020, un mestizaje ineludible: cambio demográfico, mercado de trabajo e inmigración en las comunidades autónomas.* Barcelona: Generalitat de Catalunya / Institut d'Estudis Autonòmics.

ORTEGA, J. (2007). *Determinantes del nivel de catalán de los inmigrantes en Cataluña: Un análisis de sección cruzada a nivel comarcal.* FEDEA, Documento de Trabajo 2007-25.

PAJARES, M. (2007). *Inmigración y mercado de trabajo informe 2007. Análisis de datos de España y Cataluña.* Madrid: Ministerio de Trabajo y Asuntos Sociales.

PASCUAL DE SANS, A. (dir.) (2007). *Redes sociales de apoyo. La inserción de la población extranjera.* Bilbao: Fundación BBVA.

MONTESINOS, V.; SERRANO, L.; FERNÁNDEZ DE GUEVARA, J.; PÉREZ, F. (2005). *La medición del capital social: una aproximación económica.* Bilbao: Fundación BBVA.

PRUNÉS, A.; SOLÉ, J. (2002). «Usos, actituds i serveis lingüístics a les empreses associades a la CECOT». *Noves SL.: Revista de sociolingüística*, 3.

PUTNAM, R.D. (1993), *Making Democracy Work: Civic Traditions in Modern Italy.* Princeton: Princeton University Press.

RAYMOND, J.L.; GONZÁLEZ-PÁRAMO, M. (1988). «Déficit, impuestos y crecimiento del gasto público». *Papeles de Economía Española*, 37.

ROCA, M. (2005). «Estudio de caso: el impacto de la inmigración en Guissona (Lleida)». In: LÓPEZ CASASNOVAS, G. (dir). *Inmigración y transformación social en Cataluña (Vol I). Aspectos socioeconómicos del fenómeno inmigratorio: las cuestiones relevantes.* Barcelona: Fundación BBVA and Institut d'Estudis Autonòmics.

SECRETARIA DE POLÍTICA LINGÜÍSTICA DEL DEPARTAMENT DE LA PRESIDÈNCIA I L'IDESCAT (2004). *Estadística d'usos lingüístics a Catalunya 2003.* Barcelona: Generalitat de Catalunya.

SECRETARIA PER A LA IMMIGRACIÓ (2005). *Pla de Ciutadania i Immigració 2005-2008.* Barcelona. Generalitat de Catalunya Departament de Benestar i Família Secretaria per a la Immigració.

TAINER, E. (1988). «English Language Proficiency and Earnings Among Foregin-Born Men». *Journal of Human Resources*, 23(1), p. 108-122.

VELTMAN, C.J. (1983). *Language Shift in the United States.* New York: Mouton.

ZETTER, R.; GRIFFITHS, D.; SIGONA, M. (2006). *Immigration, Social Cohesion and Social Capital: What are the Links.* New York: Joseph Rowntree Foundation.

pàg. 256

blanca