



Skilled Immigration: A Visa for Growth

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Compared to other OECD countries, immigration to France is low in skills, diversity and volume. Yet a large body of economics research demonstrates the benefits of a skilled, diversified labour immigration in terms of innovation, entrepreneurship, integration into the global economy (*via* trade, capital flows and knowledge flows) and, ultimately, productivity growth. However, with its immigration policy based on family and humanitarian rights, France is not taking advantage of these opportunities.

The French public debate on immigration is dominated by issues of identity and security. When the economic perspective is addressed, it is focused on short-term labour market and fiscal effects. Yet, these effects have repeatedly been shown in the literature to be relatively modest, including in France. In contrast, the literature demonstrates that the long-term, growth effects of immigration can be substantial; and yet they are generally overlooked.

In light of the recent scientific literature, and based on the experience of other OECD countries, we are making recommendations to promote labour immigration to France, particularly skilled immigration. In order to respond effectively to the needs of the labour market in the short term, we recommend that efforts be continued to digitize, centralize and systematize the processing of work visa applications from companies with clear and

predictable eligibility criteria in the context of so-called shortage occupations.

To attract qualified workers, we propose an evaluation of the “talent passport” system in order to identify its weaknesses and strengthen its implementation while evaluating the quality of foreign diplomas and targeting certain countries that have a surplus of young graduates and that are poorly represented in the immigration to France.

We also recommend intensifying efforts to attract foreign students and to facilitate the transition from study to work by relaxing the conditions to receive a work permit after graduation, especially for highly qualified people. In particular, we recommend suppressing criteria related to being paid the minimum wage or to the strict correspondence between the job obtained and the qualification acquired.

Finally, we are in favour of a fundamental reform of France’s immigration policy through the introduction of a clear and predictable system, drawing on the “point systems” that have proved their worth elsewhere, notably in Canada. These systems, which can be modulated according to qualitative and quantitative targets, would weight the human capital of immigration candidates and their partners, such as education, experience, language skills, and origin, as well as their capacity for social integration, based on their social skills, such as previous experience in France, personal and family ties, or a job offer.

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Over the past year, we (the French) have been intensely asking ourselves about the reasons for France's failure in the field of anti-covid vaccines. While we have deplored the insufficiency of public funding of basic research and the lack of proper collaboration between academia and the business sector,¹ few have noted that by closing itself to immigration, especially to skilled immigration, France has lost some of its dynamism, creativity and competitiveness. Let's note that BioNtech was co-founded in 2008 by Uğur Şahin, who arrived in Germany from Turkey at the age of four, and Özlem Türeci, the daughter of a Turkish doctor who immigrated to Germany. The Pfizer Group is headed by Albert Bourla, a Sephardic Greek from Thessaloniki. Similarly, Moderna was founded in 2010 by Noubar Afeyan, who was born in Beirut into the Armenian community and immigrated at the age of 16 to Canada, which he left to pursue a PhD at MIT. The company is run by Stéphane Bancel, a Frenchman who has lived in the United States for the past 10 years, and its three founders include a Chinese-American. Indeed, studies show that immigrants are not ordinary people. They are characterized by their ability to take risks, discover and seize economic opportunities, and invest in new production methods. In the jargon of economists, they are said to be "positively self-selected" in the sense that they have above-average observable characteristics (education, health) and non-observable ones (nevertheless measurable in the laboratory, such as risk-taking and motivation). These are essential qualities for creating companies and innovating.

There are two main rationales for immigration (from the viewpoint of the host country). One has to do with the country's international legal obligations in terms of family and humanitarian law, to which France, like other members of the European Union and most OECD countries, subscribes. The second rationale is economic. It includes both labour and student immigration and varies widely from one country to another. Finally, within the European Union, there is a third rationale, which is free movement. This *Note* does not discuss immigration that takes place under family or humanitarian law.² It focuses on economic immigration, which is not extensive, and rarely discussed, in our country. In France, the public debate on immigration is dominated by issues of identity and security. When the economic angle is raised, immigrants are usually portrayed as a threat to jobs, in

addition to being a burden on the health and social protection system. This assessment is simply not true. A considerable body of economic research points to the benefits of economic immigration, particularly skilled immigration, and of the diversity that results from it. The objective of this *Note* is to demonstrate the crucial role of economic immigration for innovation, business creation and integration into the global economy. It aims to promote economic immigration that is qualified and diversified in its origins, for a France that is open to the world, more innovative and eventually more successful.

Immigration to France: Low in skills, diversity and volume

The immigrant population in France is on average poorly qualified. In 2020, 37.8% of immigrants had an educational level equal to or lower than completed middle school, compared to 18.9% of the native population.³

The immigrant population is also not very diversified in terms of geographical origins. Certain countries are over-represented in terms of origin: in 2020, 70% of non-European immigrants residing in France were born on the African continent (nearly two-thirds of them in the Northern Africa) according to INSEE population estimates. Moreover, the population tends to be concentrated in large cities (80% of immigrants live in large urban centres compared to only 60% of native-born French).⁴

Finally, the volume of immigration is low compared to other, similar-sized OECD countries. The annual flow of permanent immigrants entering France as measured by the OECD was 292,000 in 2019, or 0.41% of the country's population, which is low compared to other EU and OECD countries (0.85% on average in both cases). In terms of stock, in 2019 the immigrant population in France as measured by the OECD (i.e., foreign-born people residing in France, see Box 1) amounted to 8.4 million, representing 12.8% of the total population.⁵ The comparable figure is 13.6% in the United States, 13.7% in the United Kingdom, 16.1% in Germany, 19.5% in Sweden and 21% in Canada.⁶ Compared to the averages for the OECD countries and for our main European competitors, France

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¹ Kyle M. and A. Perrot (2021): "Pharmaceutical Innovation: How Can France Catch Up?", *Note du Conseil d'Analyse Economique (CAE)*, no 62, January.

² For a discussion of the economic contributions of refugees and asylum seekers, see Auriol E., M. Péron and P. Rousseaux (2021): "Quel est l'impact économique de l'accueil des réfugiés?", *Focus du Conseil d'Analyse Economique (CAE)*, no 070-2021, November.

³ www.insee.fr/fr/statistiques/4187349#tableau-figure_1_radio_1

⁴ INSEE (2020): *Enquête annuelle de recensement, édition 2020* and INSEE (2020): *Estimations de population*.

⁵ If we use the INSEE definition of an immigrant ("foreign-born person"), we obtain an estimated immigrant population of 6.8 million people, representing 10.2% of the population.

⁶ OECD (2020): *International Migration Outlook 2020*, OECD Publishing, Paris. And also www.oecd.org/fr/migrations/indicateursintegration/indicateursclesparpays/name,219043,en.htm. On the number of irregular immigrants in the European Union, estimates converge on a stock of 3 million in 2017 (less than 1% of the population) and around 300,000 in France (less than 0.5% of the French population), see Connor P. and J.S. Passel (2019): *Europe's Unauthorized Immigrant Population Peaks in 2016, Then Levels Off*, Pew Research Center Report, 13 November.

1. Who are the immigrants? How are they counted?

There are several definitions of immigrants. The United Nations defines an immigrant as “a person who was born in a country other than the one in which he or she resides, whether or not he or she holds the nationality of that country”. INSEE counts as immigrants only those persons born abroad of foreign nationality. Naturalized persons are therefore counted as immigrants, but not French citizens born abroad. Finally, some studies focus on foreigners (non-naturalized immigrants). Thus, the exact figures for immigration vary according to the definition used, but the orders of magnitude are comparable.

In 2019, there were 272 million international migrants in the world (UN definition).^a This represents 3.5% of the world population. As far as Europe is concerned, 37 million people born outside the European Union (EU) were legally resident in Europe in 2020.^b This represents 8.2% of the population of the area. If the data are disaggregated to the country level, the average proportion of foreigners in the populations rises to 12.2%. The difference is explained by immigration within the EU. In the end, men and women are almost equally represented among migrants (52% men and 48% women in the EU). One in seven international migrants is under 20 years old and most are of working age. For example, in the US and Europe, 75% of migrants are between 15 and 65 years old (35 years median age in the EU-28 in 2015).

^a United Nations (2019): *Population Division of the Department of Economic and Social Affairs*.

^b Eurostat (2020): *Migration and Migrants Population Statistics*.

is a country with low immigration both in terms of annual flows and stocks. This observation is particularly true for the recent period: according to Eurostat data, the percentage of foreign-born persons over the period 2011-2020 rose by 1.4 points in France, an increase that, while higher than in Italy or Spain (0.7 and 1.3 points respectively), was significantly lower than in many other European countries. Indeed, the percentage of foreign-born persons rose by 2.6 points in the United Kingdom, Finland and the Netherlands, between 4 and 5 points in Austria, Norway, Sweden and Switzerland, and 6.9 points in Germany.

⁷ OECD (2017): *Le recrutement des travailleurs immigrés : France 2017*, OECD Publishing, Paris. It should be noted that it is possible that a portion of economic immigration is covered by the family motive: for those who have the choice between an economic or a family permit, the family motive is often preferred because not only is it quicker to obtain, but above all it allows access to the labour market without any restrictions, unlike the employee permit which subjects the holder's activity to restrictive conditions (Code de l'Entrée et du Séjour des Etrangers et du Droit d'Asile - Articles L414-10 to L414-15).

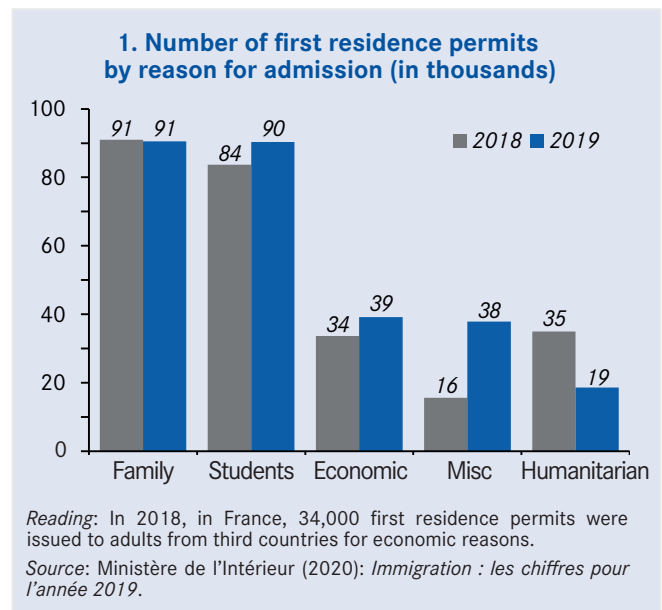
⁸ Ministère de l'Intérieur (2019): *Immigration: les chiffres pour l'année 2019*, Vie Publique.

⁹ Calculations based on Lè J. and M. Okba (2018): “L'insertion des immigrés, de l'arrivée en France au premier emploi”, *INSEE Première*, no 1717, November.

¹⁰ According to the INSEE 2020 employment survey, the unemployment rate among working immigrants is 13%, and 7.5% for non-immigrants. This difference could also reflect discrimination in the labour market.

Family immigration and the hysteresis effect

Free movement within Europe is the main reason for immigration in many EU countries. It accounts for more than 60% of total immigration to Germany, Ireland and Luxembourg. For France, on the other hand, it represents only about 30% of entries, the main motives of entry for immigrants being family related. Thus, over the period 2007-2016, 43.7% of immigrants to France came for family reasons, compared to 31% for their studies, 10% for humanitarian reasons and only 9% for work.⁷ Despite some recent developments favouring “economic” immigration, immigration for work –and in particular for skilled work– remains marginal in France. Family reasons remained the main motive for immigration in 2019 (Figure 1), despite a slight increase in student and economic visas from 2018 to 2019 (see below).⁸



However, family-based immigration tends to reinforce the initial structure of immigration. When immigration is initially diversified and skilled, as is the case in Canada and the United States, family reunification reinforces this initial diversity. Conversely, when the initial population is low-skilled and not very diverse in terms of place of birth, as is the case in France, the result is a less diverse and less skilled immigrant population. Thus, 52% of immigrants aged 15 or over who came to France for family reasons have no diploma or a level equivalent to completed middle school, and only 20% have a diploma higher than the *baccalauréat* [France's high school graduation diploma].⁹ The dominant family reason and a lack of skills partly explain the high unemployment and inactivity rate of France's immigrant population.¹⁰

France, lagging behind in the race for talent

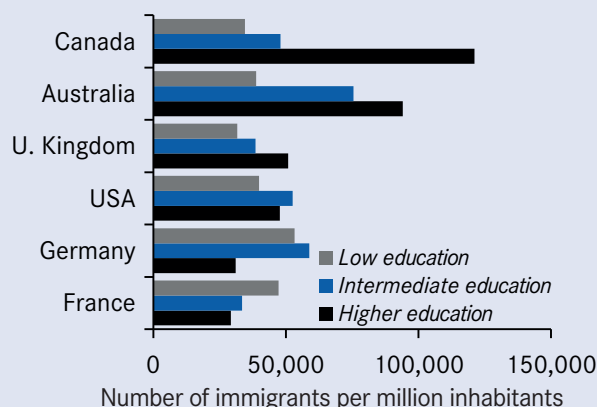
Globally, the number of immigrants with a higher education has increased by 70% in ten years, reaching 30 million in 2011.¹¹ France, which in the past was able to attract intellectuals, artists, researchers and entrepreneurs from all over the world, thereby reinforcing its economic strength and its scientific and cultural influence, has since the 1990s closed itself off with an “*a minima*” migration policy focused on legal immigration (family, humanitarian). Thus, for the period 2000-2010, the contribution of immigrants to the increase in the stock of highly qualified workers was only 3.5% in France, whereas it was more than 10% in the United Kingdom, Australia and Canada, and nearly 7% in the United States and Sweden.¹² Today, France suffers from a lack of attractiveness, as illustrated by the low level of intra-European immigration, and it lags considerably behind in the global race for talent. France, the world’s sixth-largest economy, ranks only 19th in the global “competitiveness and talent” ranking drawn up by INSEAD, which measures a country’s ability to attract, produce and retain talent. France is far behind Switzerland, Singapore and the United States, and is also outranked by the Scandinavian countries, Germany, the Netherlands and the United Kingdom.¹³ Figure 2, which breaks down immigrant stocks in 2015-2016 by level of qualification, illustrates that, of the six countries shown, France is the only one where immigrants with a low level of education outnumber those with an intermediate or higher level.

Finding 1. In comparison with our main OECD partners, immigration to France is limited to respect for individual family and humanitarian rights, and is low in terms of skills, diversity and volume.

Is immigration good for the economy?

In the public debate, immigrants are often presented as a burden on our economies. Yet the countries with the highest immigration rates in the world are all rich countries. In contrast, countries where less than 1% of the population are immigrants are extremely poor. However, these statistics are only correlations, and causality can go both ways. It may be that rich countries attract immigrants in search of a better future. It is also possible that immigrants contribute to the wealth of the host countries through their work. It is therefore important for countries taking in immigrants to know whether or not immigrants are making a positive contribution to their economy.

2. Number of immigrants (population over age 15) per million inhabitants by education level in 2015-2016



Reading: In France, in 2015-2016, there were 29,000 immigrants with higher education per million inhabitants.

Source: OECD: *Database on Immigrants in OECD and non-OECD Countries* (DIOC 2015-2016).

Weak short-term effects on native employment and public finances

The labour market effects of immigration (on natives’ wages and employment) is a matter of debate among economists. Studies focusing on the United States have found that a doubling of the number of immigrants would have a negative impact of around 3% on wages and 5% on the employment of American workers.¹⁴ Other studies using data on France obtain opposite results: immigration has a positive effect on both the wages and employment of natives with the same level of qualifications.¹⁵ This is because these native workers switch to more sophisticated jobs or move to more dynamic geographical areas. Although, depending on the context, these studies might find either a positive or a negative effect on average, they agree on the fact that the labour market effects of immigration are concentrated on the least qualified workers, which is confirmed for France by other more recent studies.¹⁶ Finally, studies that take into account the complementarity effects of immigration on workers whose qualifications differ from those of immigrants show that between 1990 and 2010, immigration had no effect on the wages of native-born French workers – indeed, these appear on average as independent from the level of penetration of immigrants.¹⁷

Furthermore, measures to increase the migration of skilled labour to France seem to confirm these conclusions. Faced

¹¹ Auriol E. (2016): *Pour en finir avec les mafias. Sexe drogue, clandestins : et si on légalisait ?*, Armand Colin.

¹² Docquier F., C. Özden and G. Peri (2014): “The Labour Market Effects of Immigration and Emigration in OECD Countries”, *Economic Journal*, vol. 124, no 579, September.

¹³ www.insead.edu/sites/default/files/assets/dept/news/docs/pr-2021-10-19-GTCL_2021-french.pdf

¹⁴ Borjas G.J. (2003): “The Labor Demand Curve is Downward Sloping: Reexamining the Impact of Immigration on the Labor Market”, *The Quarterly Journal of Economics*, vol. 118, no 4.

¹⁵ Ortega J. and G. Verdugo (2015): “The Impact of Immigration on the French Labor Market: Why so Different?”, *Labour Economics*, vol. 29.

¹⁶ Ortega J. and G. Verdugo (2021): “Who Stays and Who Leaves? Immigration and the Selection of Natives Across Locations”, *Journal of Economic Geography*, forthcoming; Edo A. (2020): “The Impact of Immigration on Wage Dynamics: Evidence from the Algerian Independence War”, *Journal of the European Economic Association*, vol. 18, no 6, pp. 3210-3260.

¹⁷ Edo A. and F. Toubal (2015): “Selective Immigration Policies and Wages Inequality”, *Review of International Economics*, vol. 23, no 1.

with growing labour shortages, France relaxed in 2008 the conditions for recruiting foreign workers from outside Europe in so-called shortage occupations. One study exploiting this policy change shows that hiring in these sectors increased due to the recruitment of foreign workers with the required qualifications, with no effect on the average wage of French workers.¹⁸ These results suggest that the hiring of qualified foreign workers helps alleviating tensions on the labour market, without penalizing native workers. All in all, studies on the effects of immigration on the labour market, particularly in France, conclude that the effects are weak, sometimes positive, sometimes negative, but always very localized and short-lived.

The fiscal cost of immigration is another important issue in the public debate. However, as Ragot (2021) shows,¹⁹ studies focusing on OECD countries indicate that immigration does not increase public deficits. Depending on the country and the year, the net contribution of immigrants to public finances ranges from + 0.5% to - 0.5% of GDP. Recent studies focusing on France reach the same conclusions. This is due to the fact that the French immigrant population, although over-represented among the unemployed and among recipients of certain social benefits, is concentrated in the active age groups that on average make a positive net contribution to the State budget. While at a given age, the net contribution of immigrants in terms of income and capital taxes is always lower than that of the native-born, the fact that they are on average more represented in the most active age groups (i.e., neither the very young nor the very old) more than offsets the possible additional cost they represent for certain branches of social protection.²⁰

Finding 2. Immigration as a whole has a low impact on the labour market in the short term and on public finances.

The long-term benefits of economic immigration

Because of its importance and role in American history and demography, immigration is a very important research topic in the United States. This vast scientific literature has

established a consensus that immigrants, by increasing the labor force and its diversity, contribute positively to the U.S. economy. Indeed, the distribution of skills is more polarized for immigrants who are, on average, either less skilled or more skilled than natives. For example, in 2011, 56% of PhDs in engineering, 51% in computer science and 44% in physics were awarded to immigrants in the United States.²¹ They thus complement the labour supply of natives. In Europe, the distribution of immigrants' qualifications is also complementary to that of the native-born. In 2016, more than one-third of immigrants did not complete high school, compared to only 25% of native Europeans. Symmetrically, one-third of immigrants have attained a higher education level.²² Since 2000, they have accounted for 14% of the increase in the highly qualified labour force in Europe. This explains, for example, that in Luxembourg, the proportion of foreigners among young higher education graduates is 33%.²³ Furthermore, because of its demographic decline, Europe has a vital need for immigrants to strengthen its population, especially its working population. Over the last few decades, 70% of the increase in the European workforce has been due to immigration, compared with 47% in the United States.

Skilled immigration, entrepreneurship and innovation

One important contribution of immigrants, especially the skilled, to America's wealth is that they create new businesses: 36% of new firms have at least one immigrant among their founders, and this figure rises to 44% for high-tech companies in Silicon Valley.²⁴ Thus, over the period 2006-2012, technology and engineering companies founded by immigrants generated US \$63 billion in revenue and employed 560,000 people.²⁵ In the end, although immigrants constitute only 13% of the American population, they represent 26% of entrepreneurs. This over-representation of immigrants among entrepreneurs is not a phenomenon unique to the United States: it has been documented recently in contexts as diverse as Chile (where immigrants from neighbouring countries are four times more likely than natives to be entrepreneurs), Venezuela (where southern European immigrants from the 1950s--Italians, Spaniards, Portuguese--are 10 times more likely than natives to be entrepreneurs), Albania,²⁶ and sub-Saharan Africa.²⁷

¹⁸ Signorelli S. (2021): "Immigration qualifiée: une solution face aux pénuries de main d'œuvre ?", *Note Institut des Politiques Publiques (IPP)*, no 63.

¹⁹ Ragot L. (2021): "Immigration et finances publiques", *Focus du Conseil d'Analyse Economique (CAE)*, no 072-2021, November.

²⁰ Chojnicki X., N.P. Sokhna and L. Ragot (2021): "L'impact budgétaire de 30 ans d'immigration en France: une approche comptable", *Revue Economique*, forthcoming.

²¹ Auriol (2016), *op. cit.*

²² European Commission (2017): *Taux de diplômés de l'enseignement supérieur, Fiches thématiques du Semestre européen*. One can also refer to European Commission, Education and Training Monitor 2017 - Country analysis (eslplus.eu)

²³ Direction de l'évaluation, de la prospective et de la performance (DEPP) (2014): "Diplômés de l'enseignement supérieur: situations contrastées en Europe", *Note d'information de la DEPP*, no 5, M arch.

²⁴ Kerr S.P. and W.R. Kerr (2016): "Immigrant Entrepreneurship", *NBER Working Paper Series*, no 22385, July.

²⁵ Furchtgott-Roth D. (2014): "Does Immigration Increase Economic Growth?", *Economic Policies for the 21st Century at the Manhattan Institute*, e21 Brief.

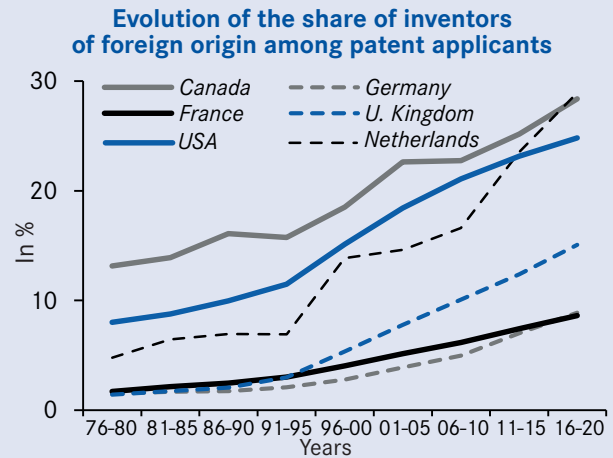
²⁶ Rapoport H. (2018): *Repenser l'immigration en France, un point de vue économique*, CEPREMAP, Editions rue d'Ulm.

²⁷ Alby P., E. Auriol and P. Ngumkeu (2020): "Does Social Pressure Hinder Entrepreneurship in Africa? The Forced Mutual Help Hypothesis", *Economica*, vol. 87, no 346, pp. 299-327, April.

2. The low share of foreign inventors in France

Data on the origin of inventors are scarce, and countries are not very comparable. Focusing on highly skilled immigrants, especially in the field of new information and communication technologies, and using original data, Lissoni and Miguelez (2021) have succeeded in making comparisons between countries.^a The authors have created an algorithm to assign a probable origin (foreign or native) to patent owners, especially those registered in the European Patent Office (EPO).

France thus appears far behind the United States, Canada, the Netherlands and the United Kingdom, with less than 10% of patent owners of foreign origin between 2011 and 2015. Like Germany, it started from a low level and did not manage to increase significantly the share of foreign inventors. Even though France hosts a large number of international students, they tend to stay in the country less after graduation, and the immigrants it attracts are less likely to engage in pathways conducive to innovation, especially in the field of new technologies. It also appears that in terms of innovation quality, the share of patents



with at least one foreign inventor is higher in the most cited category of patents, especially in the United States, suggesting an additional qualitative contribution of foreign inventors compared to native inventors.

^a Lissoni F. and E. Miguelez (2021): "International Migration and Innovation: France in a Comparative Perspective", *Focus du CAE*, no 071-2021, November.

Another very important contribution of skilled immigrants to the economy is that they are innovators. In the field of research, for example, they accounted for 24% of patents filed in the United States over the period 1940-2000. A 1% increase in the number of immigrant scientists and engineers increases the number of patents per capita filed²⁸ by 9 to 18%. And the benefits of immigration for innovation are long-lasting. In sectors where foreign inventors were strongly represented between 1880 and 1940, the number of patent applications and citations between 1940 and 2000 were higher than in sectors where foreign inventors were less present.²⁹ The results are similar when the scope of the study is extended to other OECD countries, notably to Europe.³⁰ This is less true in France because of the structure of our immigration (see Box 2).

The immigration of low-skilled labour: A source of flexibility

Low-skilled immigrants generally work in sectors that are seasonal, physically demanding and/or with irregular working hours.³¹ These jobs are not compatible with family life and are difficult to fill. Thus, and counter-intuitively, unskilled immigration can lead to an increase in labour market participation among the native-born. This is the case of personal services, which, by freeing up skilled female labour, are conducive to growth.³² Moreover, the employment of immigrants is more closely linked to the business cycle than the employment of natives. Less skilled workers have higher employment rates in periods of growth and are the first to lose their jobs in periods of recession.³³ Thus, due

²⁸ Hunt J. and M. Gauthier-Loiselle (2010): "How Much Does Immigration Boost Innovation?", *American Economic Journal: Macroeconomics*, vol. 2, no 2.

²⁹ Akgigit U., J. Grigsby, and T. Nicholas (2017), "The Rise of American Ingenuity: Innovation and Inventors of the Golden Age", *National Bureau of Economic Research Working Paper*, no 23047.

³⁰ Dumont J-C. and T. Liebig (2014): *Is Migration Good for the Economy?*, OECD Migration Policy Debates.

³¹ Desjonquères A., M. Niang and M. Okba (2021): "Les métiers des immigrants", *Document d'Etudes de la DARES*, no 254, September.

³² Cortes P. and J. Tessada (2011): "Low-Skilled Immigration and the Labor Supply of Highly Skilled Women", *American Economic Journal: Applied Economics*, vol. 3, no 3.

³³ Alonso J.A. (2011): "International Migration and Development: A Review in Light of the Crisis", *CDP Background Paper*, no 11.

to their greater geographical mobility, immigrants actually cushioned the impact of the 2008 crisis on native workers.³⁴

Finding 3. Labor immigration complements the supply of native workers. The most skilled immigrants innovate and create businesses. The less skilled occupy abandoned jobs and free up skilled women workers. The pro-cyclical nature of this labor force is a source of flexibility for firms and a buffer against macroeconomic shocks.

Diversity of birthplaces: A productivity factor

Although the diversity linked to immigrants' birthplaces is often amalgamated with ethnic or phenotypic diversity, it is different. From an economic point of view, having a different skin colour, or belonging to two different ethnic groups, is not sufficient to generate productive complementarities.³⁵ But studies on company data show that the most diverse teams in terms of birthplaces have the best performance.³⁶ These studies reveal productive complementarities in knowledge, qualifications and cognitive procedures, which show up all the more strongly when individuals come from different educational and cultural systems and are highly qualified. These results can be seen at the macroeconomic level: the diversity of skilled immigration has a positive impact on the income and productivity levels of rich countries.³⁷ It also translates for the receiving countries into a better export performance and a greater diversity of exports (independently of network effects or of the diffusion of productive knowledge).³⁸

Finding 4. Birthplace diversity, especially when workers are skilled, is a source of productivity gains and growth.

Skilled immigration: An asset in a globalized world

International flows of goods, capital and people are key drivers of a country's growth and productivity. Many studies have demonstrated the positive impact of immigration on exports.³⁹ This is primarily due to the network effects of diasporas, which make it possible to reduce transaction costs (particularly informational) between countries,⁴⁰ but also to the effects of immigration on the productivity of companies due both to transfers of productive knowledge⁴¹ and to the increased diversity of the workforce. The same is true for foreign direct investment (FDI) and for international financial flows on the whole. Indeed, several studies show that skilled migrants are better able to reduce informational frictions and foster financial cooperation between countries, for example because of their membership in business networks and their better integration in the labour market.⁴²

Finding 5. Skilled immigration promotes the diffusion of productive knowledge and is also a key driver of international trade and foreign direct investment.

Rejection of immigration and perception bias

56% of French people believe that immigration has a negative impact on the country.⁴³ This mistrust, which is not unique to France, partly explains the success of populist movements that promote the idea that immigration flows are large and socially costly. Research carried out in several countries, including France, shows that low-skilled, undiversified and geographically concentrated immigration like that in France feeds biases in public opinion, both about the number and characteristics of immigrants.⁴⁴ Given the fairly lengthy history of immigration in France, these biases are being reinforced by the significant weight of the "second generation", which, although native-born, inherits the family's

³⁴ Özgüzel C. (2020): "The Cushioning Effect of Immigrant Mobility: Evidence from the Great Recession in Spain", *Paris School of Economics Working Paper*.

³⁵ Studies show a potentially negative effect of certain forms of diversity (ethnic in particular) in contexts such as those of African countries or even in the United States, see for example Easterly W. and R. Levine (1997): "Africa's Growth Tragedy: Policies and Ethnic Divisions", *Quarterly Journal of Economics*, vol. 112, no 4; Hjort J. (2014): "Ethnic Divisions and Production in Firms", *Quarterly Journal of Economics*, vol. 129, no 4. or Alesina A., R. Baqir and W. Easterly (1999): "Public Goods and Ethnic Divisions", *Quarterly Journal of Economics*, vol. 114, no 4.

³⁶ Suedekum J., K. Wolf and U. Blien (2014): "Cultural Diversity and local Labour Markets", *Regional Studies*, vol. 48, no 1, pp. 173-191.

³⁷ Alesina A., J. Harnoss and H. Rapoport (2016): "Birthplace Diversity and Economic Prosperity", *Journal of Economic Growth*, vol. 21, no 2.

³⁸ Orefice, Rapoport and Santoni (2021), *op. cit.* and Bahar D., H. Rapoport and R. Turati (2021): "Birthplace Diversity and Economic Complexity: Cross-Country Evidence", *Research Policy*, no 103991.

³⁹ Orefice G., H. Rapoport and G. Santoni (2021): "How Do Immigrants Promote Exports?", *CEPII Working Paper*, no 2021/04.

⁴⁰ Rauch J.E. and V. Trindade (2002): "Ethnic Chinese Networks in International Trade", *Review of Economics and Statistics*, vol. 84, no 1, pp. 116-130.

⁴¹ Bahar D. and H. Rapoport (2018): "Migration, Knowledge Diffusion and the Comparative Advantage of Nations", *Economic Journal*, vol. 128, no 612.

⁴² For FDI, see Kugler M. and H. Rapoport (2007): "International Labor and Capital Flows: Complements or Substitutes?", *Economics Letters*, vol. 94, no 2; on financial flows (bank loans, securities purchases), see Kugler M., O. Levintal and H. Rapoport (2018): "Migration and Cross-Border Financial Flows", *World Bank Economic Review*, vol. 32, no 1.

⁴³ IFOP (2017): *Les Français et leurs perceptions de l'immigration, des réfugiés et de l'identité*.

⁴⁴ See Alesina A., A. Miano and S. Stantcheva (2021): "Immigration and Redistribution", *NBER Working Paper*, no 24733, June, and Kawalerowicz J. (2021): "Too Many Immigrants: How Does Local Diversity Contribute to Attitudes Toward Immigration?", *Acta Sociologica*, vol. 64, no 2, pp. 144-165 for a study in the British context.

migration history and the social representations associated with it.⁴⁵ Immigration is thus sometimes portrayed as a threat to social cohesion⁴⁶ and even to personal safety. In a context of severe budgetary constraints, both at the national level and the individual level in terms of purchasing power, immigration comes to be perceived as a burden.

A final factor contributing to the rejection of immigration concerns the problem of illegal immigration. It is a source of appalling tragedy, exploitation and fraud, and is not well tolerated by public opinion. One way to discourage it is to limit its benefits. This means stepping up random checks in companies. At present, random checks account for less than 10% of the total number of checks in the fight against illegal employment, the rest being mainly denunciations. The total number is thus very low, including in the riskiest sectors. For example, in 2017, when the hotel and catering sector was targeted, only 6,330 employees were randomly checked out of the 700,000 in this sector (i.e. 0.9% of the workforce).⁴⁷ And out of the 15,300 offences that were detected as part of the fight against illegal employment in 2014, the employment of foreigners without a work permit represented only 12.6% of the total, or 1,930 offences.⁴⁸ This is not enough to discourage employers from using undocumented workers. Strengthening these controls, modernizing the procedures (*via e-administration*) and increasing their effectiveness would help to limit illegal immigration and the negative perceptions it generates.

Media coverage of these issues contributes to the negative perception of immigration. The public debate ignores its economic benefits, particularly in terms of innovation and growth, thus depriving France of the economic potential that skilled labour immigration brings. Even if the fight against this mistrust is difficult, it involves major economic stakes. It is therefore urgent to take up this challenge.

Rethinking France's immigration policy

Many developed countries are seeking to attract skilled or even highly skilled immigrants with more or less selective systems. The general trend is to facilitate their integration into the labour market and to ease the constraints on the education-to-work transition for young foreigners. Two types of policies can be distinguished: explicit selective policies based on an economy's short-term needs (occupations in

short supply, business needs) and/or its long-term needs (types of immigrants one wishes to attract); and policies that encourage foreign students to stay after their studies.⁴⁹

These different systems are not mutually exclusive, and some countries combine them. Nor do they follow the same logic. Policies based on business needs, as is the case with visas granted in so-called "shortage" sectors in France, focus on the short term. Their point is to meet an unfulfilled labour need. Others aim to attract talent independently of a short-term need, such as residence permits for foreign students after their studies. Finally, points-based systems are intermediate systems. They seek to attract talent while responding to short-term needs in sectors experiencing labour shortage. A general recommendation, which we spell out below, is therefore for France to develop a variety of immigration channels (*via companies, points-based systems, study-to-work transition*) in order to increase immigrants' qualifications and the diversity of their origins.

Meeting short-term labour market needs

As a result of the health crisis, immigration has collapsed: between 2019 and 2020, the issuance of first visas has fallen by 20.5%, and the issuance of total visas (which includes renewals) has fallen by 80%.⁵⁰ Figure 3 shows a positive correlation between labour shortage and pre-crisis levels of immigration: the industries that were most dependent on migrant workers in 2018 are those that are now reporting labour shortages (especially construction and hotels and catering sectors). Although this is only a simple correlation, it suggests that immigrant and native workers are more complementary than substitutable and that immigration helps to bring relief to certain sectors and/or trades.

France has officially established a list of occupations with labour shortages in order to facilitate the granting of visas to immigrants with the desired qualifications. The main criticism of this system is that the administration does not regularly revise the list, which quickly renders it obsolete and therefore ineffective in meeting short-term labour market needs. This list, which was established in 2008, has just been updated after a consultation process lasting several months, but it faces the same risk of becoming obsolescent over time. For companies that are unable to recruit the workers they need from within France, there is also the possibility of recruiting immigrants via applications for employee permits subject to a

⁴⁵ Brutel C. (2017): "E tre né en France d'un parent immigré", *INSEE Première*, no 1634.

⁴⁶ Fourquet J. (2019): *L'archipel français, naissance d'une nation multiple et divisée*, Points Edition.

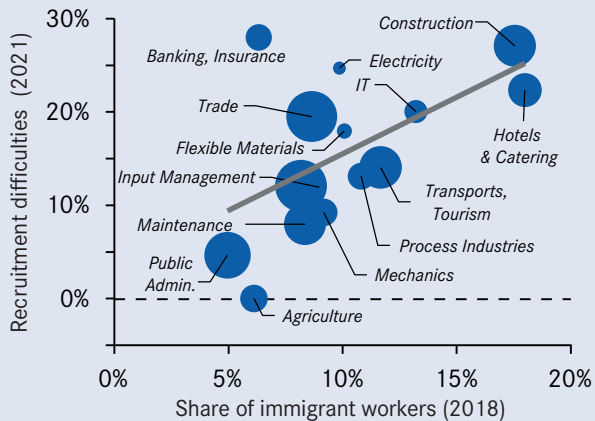
⁴⁷ Assessment of undeclared work and its impact on public finances (as of the end of June 2019), Note prepared by ACOSS for the HCFiPS, incorporating contributions from CCMSA and INSEE.

⁴⁸ The offence of employing foreigners without a work permit is concentrated in the construction sector (43%), hotels and catering (21%) and trade (17%). See European Migration Network (EMN) (2017): "Illegal employment of third country nationals in France", *EMN Briefing Note*, April.

⁴⁹ Indirectly, the reception of refugees may be part of this logic, given that they are often qualified and, in any case, have higher qualifications on average than residents of the countries of origin due to positive self-selection, see Aksoy C.G. and P. Poutvaara (2021): "Refugees' and Irregular Migrants' Self-Selection into Europe", *Journal of Development Economics*, no 102681.

⁵⁰ Direction générale des étrangers en France (DGEF) (2020): *Statistiques annuelles en matière d'immigration, d'asile et d'acquisition de la nationalité française. Les chiffres clefs*, Département des statistiques, des études et de la documentation (DSED), 12 June.

3. Recruitment difficulties and immigration in France (2021 and 2018): An effect of the Covid crisis?



Reading: The size of the circles is proportional to the share of the sector in total paid employment. In the construction sector, the share of immigrants among workers was 17.5% in 2018, and 27 out of 100 companies reported difficulties in recruiting in the summer of 2021.

Source: Beuve J., M. Péron and B. Roux (2021): "Immigration et difficultés de recrutement", *Focus du CAE*, no 073-2021, November.

labour market protection regime (*opposabilité de la situation de l'emploi - OSE*). In practice, this system, which until recently depended on two ministries (Labour and the Interior), is so cumbersome that it is accessible only to large companies. It is also very random. The statistical tools transmitted to the services in charge of assessing the employment situation are notoriously imprecise and lead to applications being rejected despite proven labour needs. In France, the granting of work visas is the responsibility of the *prefectures*, which leads to a great deal of heterogeneity in the final decisions. This discretionary system creates uncertainty both for companies seeking to sponsor talent, and for applicants who cannot know in advance whether their application will be favourably received. This opacity of the French administrative process contributes to discouraging potential employers, especially SMEs. For example, Paris and Hauts-de-Seine account for 20% and 14% respectively of applications for the introduction of a work permit subject to the OSE labour protection regime. The refusal rates are almost zero for temporary workers and less than 4% for others, whereas they are 17% on average in the rest of the country⁵¹. This variance reflects the fact that the eligibility criteria are unclear and subject to the discretion of the *prefectures*. Even though reforms have been undertaken to reduce this inconsistency in the handling of applications,⁵² it would seem judicious, in a centralized country like France, to create a unit responsible for all files with a single digital window that facilitates applications by companies with standardized admission criteria and response times.

⁵¹ OECD (2017), *op. cit.*

⁵² Since April 2021, the Ministry of Labour's foreign labour services (SMOE) have been transferred to the *prefectures*, seven platforms for processing files have been set up and work permit applications have been dematerialized. This has resulted in a reduction in the average processing time, which is now contained between one and two weeks (Document DGEF). Another simplification concerns the proof of need for labour, which now requires that a job has been published for three weeks on the main job search sites and no application for it has been accepted (see Labour Code, Article R5221-20).

⁵³ Cour des Comptes (2019): *Rapport public annuel 2019*, Tome 1.

Finally, the last channel used by companies facing a labour shortage is the use of seconded employees. These workers, sent temporarily to France by their foreign employer, are not counted in national employment statistics. Leaving aside road transport, 251,300 employees were thus detached at least once to France in 2019, mainly in industry, construction, services and agriculture. France ranks second in the European Union for hosting seconded employees, and fourth in sending them.⁵³

Recommendation 1. Continue efforts to digitize, centralize and systematize the processing of work visa applications for businesses, with clear and predictable eligibility criteria.

The points system

Canada and Australia have had "points-based" immigration systems in place for several decades (see Box 3). The United Kingdom introduced it in 2006. The system also exists, in various forms, in New Zealand and Austria. The points system is a policy of selecting immigration applicants on the basis of several characteristics such as age, level of qualification, language skills, work experience and capacity for integration. Each applicant is given a total score, which reflects the match between his or her characteristics and the priorities set by the host government. This system makes use of weightings (which may vary over time) to favour specific competences, such as professional qualifications, or general competences, such as the level of education or language skills. The total score is part of the decision on whether or not to grant a visa, but it is not necessarily the only element considered. Under this system, you do not need a sponsor to apply for immigration, and the granting of a visa is not dependent on a promise of employment, although this usually makes things much easier.

A points system has the advantage of being transparent, fair and efficient: after filling in a questionnaire, the prospective immigrant has a fairly clear idea of his or her chances of obtaining an entry visa. This system encourages governments to specify the criteria that are important for successful immigration and encourages skilled immigrants to apply for a residence permit and even to train (e.g. by learning the language of the host country) in advance of their application. It is also an evolving and flexible system, as the weights and volumes, reflecting the government's qualitative and quantitative immigration targets, can be easily changed.

3. The Canadian point system

The Canadian point system, called the Global Ranking System (GRS), contains four families of criteria: the applicant's basic human capital, transferable skill sets, integration factors, and household characteristics. The applicant's score is relative to a maximum total of 1,200 points. The system gives a premium to experience, education, age (zero points for those under 18 or over 47), language skills, ability to integrate, particularly through an offer of employment, and the overall quality of the household. For example, a qualified person between 30-35 years old, with a Master's degree and more than 6 years of professional experience in France, with no ties or experience in Canada, but a valid job offer, married to a spouse with a Master's degree and more than 6 years of experience, both speaking English and French perfectly, obtains a score of 1,090 points. Canada then selects the highest-ranked candidates and invites them to apply for permanent residence. For example, for the 1 September 2021 Provincial Nominee Program (PNP) 203 draw, the GRS score of the lowest-ranked applicant to receive an invitation was 764 points, with 635 invitations sent in total.

Unlike a system where a promise of employment is central to the visa process, the points-based visa system does not require a "sponsoring" employer or a promise of employment in order to apply, and therefore allows for a more dynamic labor market.

As far as France is concerned, a points system would make it possible to introduce a criterion to encourage greater diversity of immigrant origins by giving extra points to candidates from under-represented countries. The United States is the only country with a long tradition (since 1924) of an immigration policy based on the diversity of birthplaces. The main purpose is to limit the over-representation of certain regions or nationalities. The most spectacular initiative in this area was the introduction in 1990 of the famous "green card lottery", which offered permanent residence permits to migrants from countries with a low population representation in the US. The principle is simple: all foreigners from countries that have sent fewer than 50,000 immigrants to the United States over the past five years can apply. Each year, more than 10 million people around the world apply for this "diversity" lottery. Fifty thousand of them are randomly drawn and awarded visas. Given that on average each applicant is accompanied by another family member, this represents 100,000 annual entries, which is close to the level of France's annual net migration over the past three decades. Without necessarily

launching a similar lottery in France, incorporating criteria for immigrants' geographic origin into a points-based system could help to correct the lack of diversity in the current immigration system.

Recommendation 2. Introduce a clear and predictable "points system" in France, which will weigh the education, experience, language skills, personal and family ties, and the origin of immigration applicants.

The "talent passport", a tool to be developed

Since 2016, France has sought to reverse its strategy for international immigration. The Law of 7 March 2016 on foreigners' rights aims in particular to combat illegal immigration and to attract qualified workers with the introduction of a "talent passport", the counterpart of the European "blue card". This residence permit, which is valid for a maximum of 4 years, is intended for young, qualified employees of an innovative company, researchers, business creators or even those with an innovative economic project. The Ministry of the Interior estimates that in 2019, the talent passport was issued to 13,500 first-time applicants. This very small number does not reverse the trend of low-skilled, undiversified and low-volume immigration. Despite these initiatives to promote labour immigration, particularly skilled labour, family immigration remains the main grounds for visas granted in France.

For young graduates, a major obstacle to skilled immigration involves the recognition of diplomas obtained abroad. On this point, the action of France could be evaluated and expanded. It would also be desirable to target countries with a developed education system among those that are under-represented in our immigrant population, as is the case with India, for example. As a result of massive public and private investment in education, India has a surplus of young graduates, especially engineers: 10 million new graduates join the Indian labour market every year, and in 2017 the unemployment rate of these graduates (12.7%) was three times higher than the national average, especially among women, whose unemployment rate increases with their qualification level.⁵⁴ It would thus be wise to look into the quality of their diplomas, as some of them could, as immigrants, contribute to the French economy and growth.

Recommendation 3. Evaluate the "talent passport" system to identify the obstacles and step up grants by targeting certain countries with a surplus of young graduates.

⁵⁴ Basole A. (ed.) (2019): *State of Working India 2019*, Centre for Sustainable Employment, Azim Premji University.

Attracting foreign talent to our universities: the “*Bienvenue en France*” label

As has already been emphasised in previous CAE studies, a key factor in increasing skilled immigration is the reception of foreign students.⁵⁵ Provided that a significant fraction of them remain in France, welcoming foreign students is a simple and effective way to encourage skilled immigration. In the United States, for example, immigrants who initially entered the country on a student visa earn higher salaries, file more patents, commercialize them more, and publish more research than native-borns. In general, this advantage is explained by their higher final education level and their chosen field of study.⁵⁶

France has serious assets in this area. Its universities offer a wide range of education and are very competitive in financial terms. According to INSEAD’s global barometer measuring competitiveness and talent, France is appreciated for the quality of its *grandes écoles* and universities as well as for its infrastructure in the field of telecommunications and information technology.⁵⁷ In fact, it is the fourth-most popular country for international students after the United States, the United Kingdom and Australia, and the top host country that is non-English speaking. However, the lack of a real standardized hosting programme, similar to what is practiced in neighbouring countries such as the United Kingdom or in northern Europe, has proven to be a major hindrance in attracting international students, particularly non-French speaking students. Foreign students who wish to come and study in France traditionally come up against complex administrative procedures, particularly with regard to visas, as well as difficulties in finding accommodation or in applying for social assistance. Thus, the number of mobile students is growing much less quickly in France than in other countries, such as Germany, Russia, China and Canada, which have offensive strategies to attract more foreign students. Aware of this loss of momentum, the public authorities have introduced new measures.

Campus France has been entrusted with the implementation of the “*Bienvenue en France*” [Welcome to France] label, which sets a quality standard for the policy of welcoming foreign students to French higher education institutions. By November 2020, 102 higher education institutions had been awarded the label. With this initiative, France has set itself a twofold objective: to welcome half a million foreign students by 2027 (before the Covid-19 health crisis, there were around 350,000) and to encourage more French students to go abroad as part of university exchanges or for a degree. The “*Études en France*” [Studies in France] system, which allows foreigners to apply to higher education institutions in

a simplified and centralized manner, concerns 65 countries and covers all continents except Oceania.⁵⁸

Finally, a major obstacle to attracting the best international students is the limited availability of courses in English in the French higher education system. This is an insurmountable barrier for students from countries outside the traditional French-speaking world. The quality of teaching and supervision also needs to be improved in order to offer better quality training. To finance the cost of this, it is necessary, as is done in the Anglo-American system, to increase the registration fees of non-EU nationals via differential fees. A policy of university excellence like this would benefit France in two ways. First, it would enable us to attract international talent, much of which would remain in France post-studies, and second, it would offer better study conditions and better levels of qualification to French students.

Recommendation 4. Encourage French higher education institutions to adhere to the “*Bienvenue en France*” label and to develop their offer of courses in English as well as the quality of their training.

Promoting the transition from education to employment

Many countries, such as England, Sweden and New Zealand, make it easier for foreign students to settle in their country for a longer period of time by systematically extending their visas from one to three years after their studies. The United States, which explicitly encourages skilled immigration with the introduction of specific visas (H-1B visas), relies on the attractiveness of its universities to pull in the best foreign students. The latter often stay in the United States after their studies, which partly explains why the United States remains the world leader in innovation and patents filed.

In France, the transition from study to work is not easy. Obtaining a residence permit at the end of studies is subject to the same hazards as the visa application for workers. Holders of a Bachelor’s degree or lower can obtain an “employee” or “temporary worker” residence permit if they have signed an employment contract (or a promise of employment) and have applied for the permit within the two months preceding the expiration date of their student residence permit. The employment situation will be opposed to them, unless they find a job in a sector classified as being in shortage. Holders of a professional Licence and a Master’s degree can obtain a visa if they have signed an employment contract (or a promise

⁵⁵ Garcia-Peñalosa C. and E. Wasmer (2016): “Preparing France for the Increasing International Mobility of Talents”, *Note du Conseil d’Analyse Economique (CAE)*, no 31, May.

⁵⁶ Hunt J. (2011): “Which Immigrants Are Most Innovative and Entrepreneurial? Distinctions by Entry Visa,” *Journal of Labor Economics*, vol. 29, no 3.

⁵⁷ www.insead.edu/sites/default/files/assets/dept/news/docs/pr-2021-10-19-GTCL_2021-french.pdf

⁵⁸ See www.campusfrance.org/fr/candidature-procedure-etudes-en-france

of employment) in the two months preceding the expiration date of their student residence permit, for a job related to their training and paying at least 2,331.88 euros gross per month for Masters holders (the employment situation will not then be opposed), or obtain a multi-year “talent passport” residence permit, if they have signed a contract of more than 3 months providing for an annual gross salary of at least 37,310 euros. These criteria are very restrictive, because most young graduates in France have difficulty entering the job market at a level of responsibility that corresponds to their degree. They need a few years of experience to be able to reach positions in line with their level of study. Finally, at the end of their higher education studies, foreign students can apply for a one-year job-search or business-creation residence permit. Generalizing the issuance of this permit has many advantages. These young people are already in France, they speak French, they are generally well integrated and the quality of their diplomas is clear.

All these existing constraints mean that the “retention rate” of foreign students in France is very low. For example, the Directorate of Studies and Statistics of the General Directorate for Foreigners in France (DGEF, Ministry of the Interior) monitored a cohort of 70,000 foreign students who obtained their first residence permit in 2015. The administrative follow-up shows that after 5 years, only 21% of them are still present in France on economic grounds. While 14% of them are still students, 57% have left France (or, for some, have obtained French nationality, which is equivalent to “leaving” the monitoring system, see the table).

Recommendation 5. Make the granting of post-studies residence permits more flexible and extensive, especially for highly qualified workers, without adding criteria for a minimum salary or the suitability of work to qualifications.

Evolution of the situation of students who arrived in France in 2015 (2015-2020)

Reasons for the residence permit	2015	2017	2020
Economic	0	7,343 (10%)	14,816 (21%)
Family	0	1,363 (2%)	4,745 (7%)
Students	70,023 (100%)	30,013 (43%)	9,855 (14%)
Other (humanitarian, miscellaneous, visitors...)	0	280 (0%)	524 (1%)
Departed	0	31,024 (44%)	40,083 (57%)

Reading: In 2020, out of the 70,023 students who arrived in France in 2014, 4,745 were still in France on family grounds, i.e. 7% of them.
Source: DGEF.

Immigration is a key factor for economic growth, especially since immigrants are skilled, bring new knowledge and skills, are of diverse origins and form a bridge in the globalization process. However, after more than thirty years of restrictive immigration policies, France is very poorly placed in the global race for talent. This article proposes five concrete recommendations to encourage diversified and qualified labour immigration and change a situation that is detrimental to our country. ●



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