



RÉPUBLIQUE
FRANÇAISE

*Liberté
Égalité
Fraternité*



BUSINESSFRANCE

FRANCE
ATTRACTIVENESS
**SCORE
BOARD**

2020

WWW.BUSINESSFRANCE.FR

FRANCE
ATTRACTIVENESS
Scoreboard

2020





Editorial

Bruno LE MAIRE
Franck RIESTER

P. 06



Foreword

Pascal CAGNI
Christophe LECOURTIER

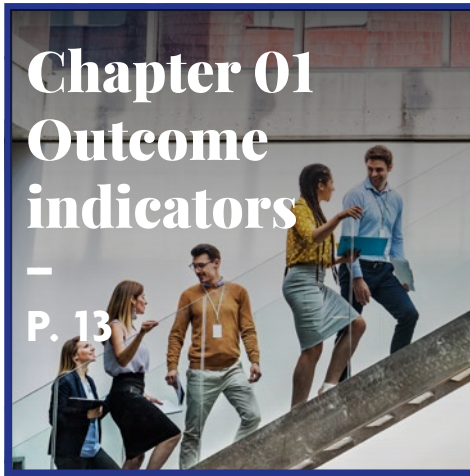
P. 08



10

Introduction





- 1.1. FOREIGN DIRECT INVESTMENT 14
- 1.2. STRATEGIC ACTIVITIES 18
- 1.3. CONTRIBUTION OF FOREIGN SUBSIDIARIES TO THE FRENCH ECONOMY 24
- 1.4. FOREIGN SKILLS 28

CHAPTER 02 ATTRACTIVENESS CRITERIA

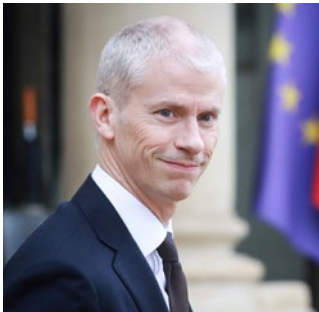


- 2.1. MARKET SIZE AND STRENGTH 36
- 2.2. EDUCATION AND HUMAN CAPITAL 42
- 2.3. RESEARCH AND INNOVATION 48
- 2.4. INFRASTRUCTURES 56
- 2.5. ADMINISTRATIVE AND REGULATORY ENVIRONMENT 64
- 2.6. FINANCIAL ENVIRONMENT 72
- 2.7. COST OF LABOR AND TAXATION 80
- 2.8. QUALITY OF LIFE 94
- 2.9. ENERGY AND GREEN GROWTH 106

France Attractiveness Scoreboard 2020 EDITORIAL



BRUNO LE MAIRE
MINISTER FOR THE ECONOMY,
FINANCE AND THE RECOVERY



FRANCK RIESTER
MINISTER DELEGATE FOR FOREIGN TRADE
AND ECONOMIC ATTRACTIVENESS

This new edition of the France Attractiveness Scoreboard, published every year by Business France, highlights our country's record levels of attractiveness just before the start of the Covid-19 pandemic. We are delighted to read that France has become the most attractive economy in Europe and that it is still improving its position on various crucial economic factors, such as infrastructure, cost competitiveness and entrepreneurship.

Back in March, we implemented an emergency plan, unparalleled in its scope, to protect our businesses facing an unprecedented shock and to preserve the economic gains acquired through the efforts made over the last three years.

In addition to this emergency plan, which was adapted and extended during the second lockdown, an ambitious recovery package worth €100 billion was announced, almost half of which was financed by European funding. It is not just an economic support plan; it is a long-term investment plan aimed at fast-tracking the modernization of our economy, which began in 2017 and which has already contributed to raising French attractiveness to an unprecedented level.

The "Relaunch France" plan provides for huge investments in everything that will create the economy and jobs of tomorrow: by accelerating our ecological transition and

the digital transition of our economy, by developing low-carbon industrial production, by stimulating technological innovation and by redoubling our efforts regarding vocational training. The plan stimulates investment in industrial sectors and technologies of the future: hydrogen, green energies, technologies of the future, healthcare industries, responsible agriculture and sustainable transport.

This plan will improve our industrial competitiveness by strengthening the equity of micro-enterprises, SMEs and mid-size companies, and by reducing production taxes by €10 billion on a lasting basis as of January 1, 2021. Finally, thanks to the Act on the acceleration and simplification of public action and the "turnkey" industrial sites program, it is now easier than ever before to set up industrial activities in France. The objective is not simply to strengthen certain existing sectors, but to create new ones: in biotechnology, renewable energies, quantum computing and waste treatment.

These very encouraging results confirm that we have all the necessary key strengths to bounce back quickly and to see, by the end of 2022, the levels of economic activity that we had in 2019. We are working to make international investors aware of this, those who continue to believe in France and create jobs here. Today, even more than yesterday, Choose France!



PASCAL CAGNI

**CHAIRMAN OF THE BOARD,
BUSINESS FRANCE,
AMBASSADOR FOR
INTERNATIONAL INVESTMENT**



CHRISTOPHE LECOURTIER

CEO OF BUSINESS FRANCE

FOREWORD

PASCAL CAGNI AND
CHRISTOPHE LECOURTIER

The Romans feared the goddess Fortune, who subjected heroes to various ordeals following a particular triumph. As luck would have it, France suffered a global health crisis at the very moment when its attractiveness was breaking records.

The France Attractiveness Scoreboard 2020 indeed confirms the exceptional rise in French attractiveness. In 2019, France became the leading host country for job-creating foreign investments in Europe and remained in first place for industrial and R&D projects. It attracted nearly 20% of all these investments, up 17% on last year, in contrast with its two main competitors, the United Kingdom, which saw only a 5% increase, and Germany, where the rate remained the same.

These results reflect the robustness of France's structural strengths and the effectiveness of the reforms carried out in recent years. France is the world's seventh largest economy and the fifth largest exporter of goods and services; it is one of the world's leading countries for transport and telecommunications infrastructure, as well as for higher education and research, and features in the top 20 in the latest Shanghai ranking of universities, after the United States and the United Kingdom.

This eleventh edition of the Scoreboard confirms that the French economy is successful because it is driven by three

key strengths, which are conducive to its sustainable growth.

Firstly, **France is undergoing an entrepreneurial resurgence.** Net enterprise creation increased by 231,513 firms in 2018, or by more than 6%, compared with 2% on average in the European Union. In manufacturing, the number of active businesses grew by more than 4%, or 10,752 net creations, an increase four times the EU-28 average.

The removal of red tape, reductions in social security contributions, and a lower corporate tax rate, together with strong political willpower, have all helped to boost France's entrepreneurial spirit, with France now in pole position in Europe.

Secondly, **France is increasingly competitive.** Among the large euro zone countries, cost competitiveness has improved the most in France since 2018. In the market sector, hourly labor cost growth remains one of the most moderate, while in manufacturing, unit labor costs actually fell in 2019, while they increased on average in the European Union, especially in Germany and the United Kingdom.

Thirdly, **France boasts strong environmental credentials.** Greenhouse gas emissions in France are among the lowest on the continent and our country is the second leading producer of renewable energy in the European Union. In 2019, less than 10%

of French electricity came from carbon-based means of production. France is well on the way to carbon neutrality, which it aims to achieve by 2050.

The “**Relaunch France**” plan seeks to reinforce these three key areas: **entrepreneurial**, with huge investment in future technologies, financial assistance for the relocation of critical industrial sectors and the development of training programs in the professions of the future; **competitive**, with the reduction in production taxes, the strengthening of companies' equity capital, the digital upgrading of micro-enterprises, SMEs and mid-size companies, and export financial aid; and **environmental**, with support for energy-efficient building renovations, the decarbonization of industrial sites, the agricultural transition, as well as the development of transport infrastructure, energy and green technologies.

The goddess Fortune has long since departed, but her departure has not meant an end to luck. The French have managed to overcome adversity on numerous occasions throughout history. The reason for this is because there is a solution, testament of which is both the French entrepreneurial spirit, as seen from this Scoreboard, and the “Relaunch France” Plan.

“Audaces fortuna juvat”, wrote the Roman poet Virgil – indeed, fortune favors the brave.

METHODOLOGICAL APPROACH

Economic attractiveness can be defined as the capacity to attract new business and mobile factors of production (capital, skilled labor, etc.) to a specific destination. This capacity is related to a wide range of macroeconomic criteria.

By compiling a vast array of economic data, but without resorting to aggregate indicators, our aim is to provide an objective view of France's attractiveness as an investment location.

We identified nine key indicators of attractiveness (via 120 criteria) affecting where multinational firms decide to set up, including market size, education and human capital, research and innovation, transport and communication infrastructure, administrative and regulatory environments, capital and employment costs (including taxation, which plays a significant role), as well as quality of life and green growth.

The countries compared with France in this report are:

EUROPEAN :

- Austria
- Belgium
- Finland
- France
- Germany
- Ireland
- Italy
- Netherlands
- Poland
- Spain
- Sweden
- United Kingdom

NON - EUROPEAN :

- Japan
- United States

These countries play a major role in international investment and have similar skill sets and/or substantial economic relations with France. Poland was chosen as an example of a country from central and Eastern Europe having comparatively recently joined the European Union. The relative performances of these 14 countries are also compared with the EU average, while for some key indicators a comparison is made with other countries from around the world.

Main results

France is a country largely open to foreign investment. In a competitive international context, France is regularly ranked among the leaders in the world for welcoming foreign direct investment.

In 2019, France was for the first time ranked as the leading recipient of foreign investment in Europe, attracting 19% of all job-creating investment projects. These results are an indication of the solidity of France's key strengths and their relative resistance to economic and political fluctuations, both internal and external.

We can see that the attractiveness of France is a major economic issue for growth and employment in the country. It relies on the size and medium-term strength of its market, its productivity, its well-qualified workforce, and the density and effectiveness of its communication and transport infrastructure.

These good results are also the fruit of tangible measures taken to boost attractiveness nationwide:

- The creation of businesses in France is strong and dynamic.

The stabilization of the research tax credit, the transformation of the competitiveness and employment tax credit (CICE) into reduced social security contributions in January 2019, the propositions of the National Committee for Industry, the Action Plan for Business Growth and Transformation Plan and the lowering of corporate tax rates to 25% by 2022 have all helped to improve the business environment. Strengthened by the commitment and pro-active approach of the government, businesses remain confident and entrepreneurial spirit can be spread. The net creation of businesses in France is strong and much higher than in Germany and the United Kingdom.

- A pro-active approach from the French government for a low-carbon economy. In the European Union, France stands out for the original nature of its energy mix. The predominance of nuclear energy (three-quarters of total

output) has enabled France to have competitive electricity, with a low carbon content, and to ensure the country's energy independence.

The France Economic Scoreboard, which today marks its 11th edition, enables people to compare France and its main rivals on an objective basis. Consequently, it forms a precious tool in the long term for defining and carrying out government policy in support of attractiveness.

The Scoreboard seeks to demonstrate that investment attractiveness cannot be measured using a single indicator, and must instead be assessed holistically by considering all the components that make an economy attractive. It pinpoints a number of areas in which France must regain ground in today's competitive environment, and underlines the purpose of current reforms.



FRANCE
ATTRACTIVENESS



CHAPTER 01

OUTCOME INDICATORS

Foreign direct investment

→ 14

Strategic activities

→ 18

Contribution of foreign subsidiaries to the French economy

→ 24

Foreign skills

→ 28

1.1 FOREIGN DIRECT INVESTMENT

Global foreign direct investment (FDI) flows stabilized in 2019, at an amount close to US\$1,500 billion. The United States (US\$246 billion) and China (US\$141 billion) were once again the largest recipients of foreign investment in 2019.

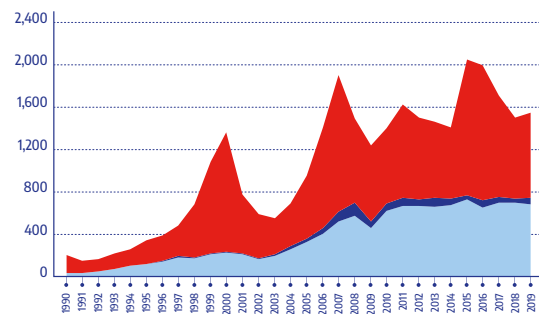
In this global context, France remains attractive and open to foreign capital, with FDI inflows in 2019 amounting to €30 billion (Banque de France data), an amount similar to that of 2018.

France is ranked 10th in the world for inward FDI stock and fifth within the European Union, after the United Kingdom, the Netherlands, Ireland and Germany, a stable level compared with 2018 (UNCTAD figures).

According to UNCTAD, incoming global FDI flows were stable between 2018 and 2019, at around US\$1,500 billion per year. FDI inflows to developed countries increased (US\$800 billion, or +5% year-on-year) while emerging countries recorded a slight decline (US\$685 billion, or decrease of -2% over one year). The United States (US\$246 billion) and China (US\$141 billion) remained the top recipients of foreign investment in 2019, followed by Singapore (US\$92 billion).

FIG. 1

FOREIGN DIRECT INVESTMENT INFLOWS (1995-2019)
US\$ BILLION



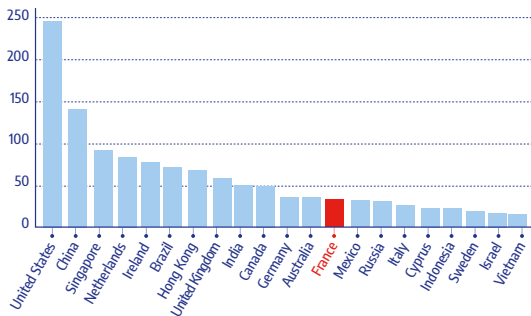
● Emerging economies ● Transition economies ● Developed countries

Source: UNCTAD, 2020

In 2019, FDI inflows to France amounted to €30 billion, an amount close to that in 2018 (US\$32 billion), following a significant increase a year earlier (+US\$6 billion). France is thus the 12th country to have attracted the largest volume of FDI in 2019, and the fifth largest in Europe, after the Netherlands, Ireland, the United Kingdom and Germany, with stable levels compared with 2018, according to data from UNCTAD.

FIG. 2

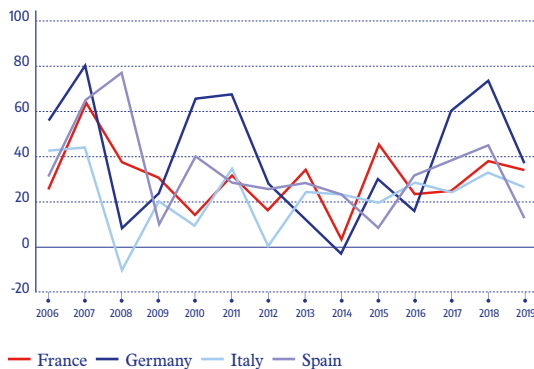
FOREIGN DIRECT INVESTMENT INFLOWS (2019)
LEADING 20 RECIPIENTS
CURRENT US\$ BILLION



Source: UNCTAD, 2020

FIG. 3

FOREIGN DIRECT INVESTMENT INFLOWS
IN LEADING EU COUNTRIES
US\$ BILLION



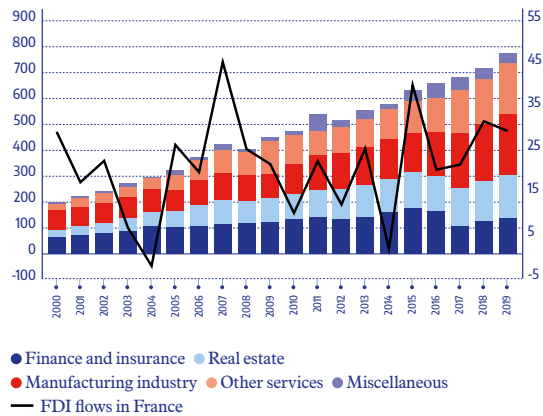
Source: UNCTAD, 2020

Taking into consideration France’s neighboring economies (Banque de France data),¹ the leading countries in terms of FDI flows to invest in France in 2019 were the United Kingdom (€7.3 billion), the United States (€5.5 billion), Switzerland (€4.4 billion) and Spain (€3 billion). Investment flows from the Netherlands (€2.1 billion in 2019, compared with €13.4 billion in 2018) and Luxembourg (€0.2 billion in 2019, compared with €19.3 billion in 2018), which are volatile in these countries traditionally serving as access to the French market, dried up significantly in 2019.

FDI inflows into France in 2019 mainly comprised equity, €25 billion, compared with €29 billion in 2018. Reinvested earnings amounted to €4 billion, compared with €7 billion in 2018, while the balance of other foreign operations returned to positive territory, +€1 billion, after a decline of -€4 billion in 2018.

FIG. 4

FOREIGN DIRECT INVESTMENT INFLOWS IN FRANCE
STOCKS AND FLOWS
€ BILLION



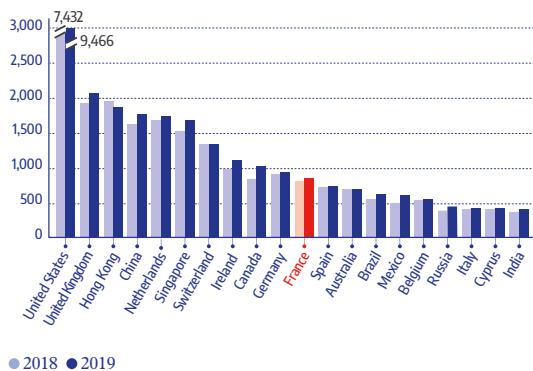
Source: Banque de France

¹ This methodology highlights the country from which the investment was made directly. No reprocessing of data has been carried out.

Incoming investment stock in France amounted to €773 billion in 2019, up 8% compared with 2018 (€717 billion), according to Banque de France estimates. According to UNCTAD data, France is ranked tenth in the world in terms of inward FDI stock, and is fifth in Europe, after the United Kingdom, the Netherlands, Ireland and Germany, with stable levels compared with 2018.

FIG. 5

INWARD FDI STOCK LEADING RECIPIENTS (TOP 20) US\$ BILLION



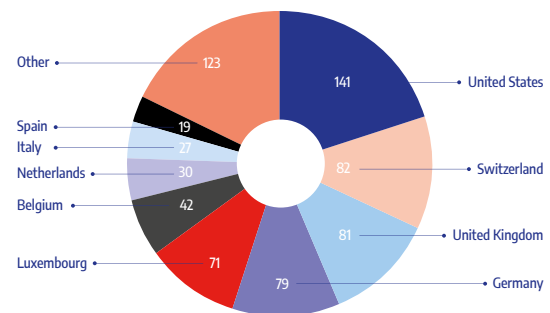
Source: UNCTAD, 2020

FDI stocks entering France by country of origin came mainly from Luxembourg (€152 billion), the Netherlands (€104 billion), the United Kingdom (€103 billion) and Switzerland (€92 billion). After restatement of these investments according to the

location of the investors' parent company ("ultimate investor" methodology),² the United States (€141 billion in 2018) is by far the leading investor in France, followed by Switzerland (€82 billion), the United Kingdom (€81 billion) and Germany (€79 billion), with the last three all in close range of one another.

FIG. 6

BREAKDOWN OF INWARD FDI STOCK IN FRANCE BY ULTIMATE INVESTOR COUNTRY (2018) US\$ BILLION



Source: Banque de France

In terms of business sector, inward investment stock is mainly concentrated in the manufacturing industry (€234 billion, or 30% of the total, of which 7% in the chemical industry and 5% in the pharmaceutical industry), and in financial and insurance activities (€137 billion, or 18% of the total incoming stock), according to the Banque de France.

² The so-called "ultimate investor" measure used by the Banque de France enables us to identify the chain of control and thus the ultimate holder of an investment.

METHODOLOGY

DEFINITION OF FOREIGN DIRECT INVESTMENT FLOWS

Global statistics on foreign direct investment flows and stocks are collected by UNCTAD (and the IMF for stocks) from central banks, statistics agencies and national governments. At a methodological level, these organizations draw on the recommendations in the 6th edition of the IMF's Balance of Payments manual. However, some differences can be seen between data provided by different statistical organizations, inherent to data collection procedures.

A direct investment relationship is deemed to be established when an individual or company (the investor) owns 10% or more of the voting rights in the company (which is then referred to as the direct investment company) or, failing this, 10% of its share capital.

Thereafter, all financial transactions between the two entities are recorded as foreign direct investment in the financial account of the host country's balance of payments:

- Share capital operations in the strict sense of the term, including business creations, business acquisitions through the acquisition of shares or earning assets, balancing subsidies, loan consolidations, subordinated debt and bank capital.
- Real-estate investments.
- Reinvested earnings that represent the proportion of direct investment companies' operating income that is transferred to the parent company over the course of a financial year, less any dividends distributed to the parent company during that year.

- Other transactions, including short- and long-term deposits, advances and loan transactions between affiliated companies, with the exception of commercial loans and loans and deposits between resident banks and their foreign correspondents that are recorded under "other investments."

DATA RELIABILITY

- FDI flows comprise a wide variety of transactions - business creations, equity stake acquisitions, productive investments, real-estate investments (included in "share capital") and intra-group loans - which cannot be interpreted in any meaningful way at aggregate level.
- FDI flows are highly volatile and frequently subject to revision. Very sharp revisions from one year to the next, due to the technical difficulties of recording flows, may lead to substantial modifications to trends and the rankings of different countries.

Due to these methodological limitations, it is paramount to complete the analysis of FDI flows and stocks with a more micro approach, or by studying firms, so as to take into account the nature of the different investment projects. The Business France Annual Report therefore strives to follow this approach (impact study in terms of jobs, value added, and R&D created).

1.2 STRATEGIC ACTIVITIES

According to the EY France Attractiveness Survey, France was the leading host country for foreign investment in Europe for the first time in 2019.

At a sector-based level, France has been ranked first in Europe for foreign investment in industrial activities for the past fifteen years. As such, industry is crucially important to the attractiveness of the French economy.

The presence of R&D centers and headquarters of multinational groups has a domino effect on the rest of the economy through knowledge and technology transfers. Investment projects like these deserve to be recognized as strategic.

These activities are not investments that create the most jobs, but they contribute very strongly to France's investment attractiveness and the growth potential of the French economy.

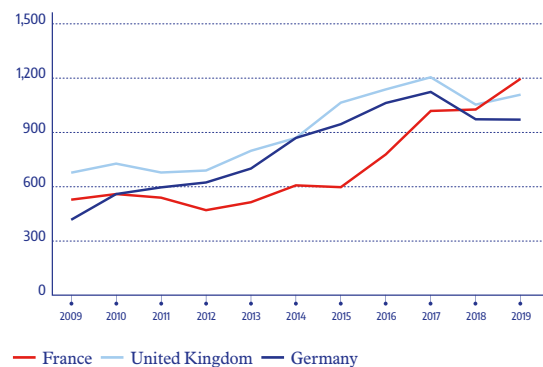
In 2019, France demonstrated itself as a competitive country in terms of innovation. What's more, France was the leading European country for setting up R&D projects by foreign businesses.

According to the EY France Attractiveness Survey, France was the leading host country of foreign investment in Europe for the first time in 2019.

France welcomed 18.8% of all job-creating investment projects in 2019. The number of foreign investment projects in France increased by 17% in 2018, in contrast to a 5% rise in the United Kingdom and stable numbers in Germany. These results testify to the strength of France's structural advantages and the country's resistance to cyclical and political fluctuations, whether internal or external.

FIG. 7

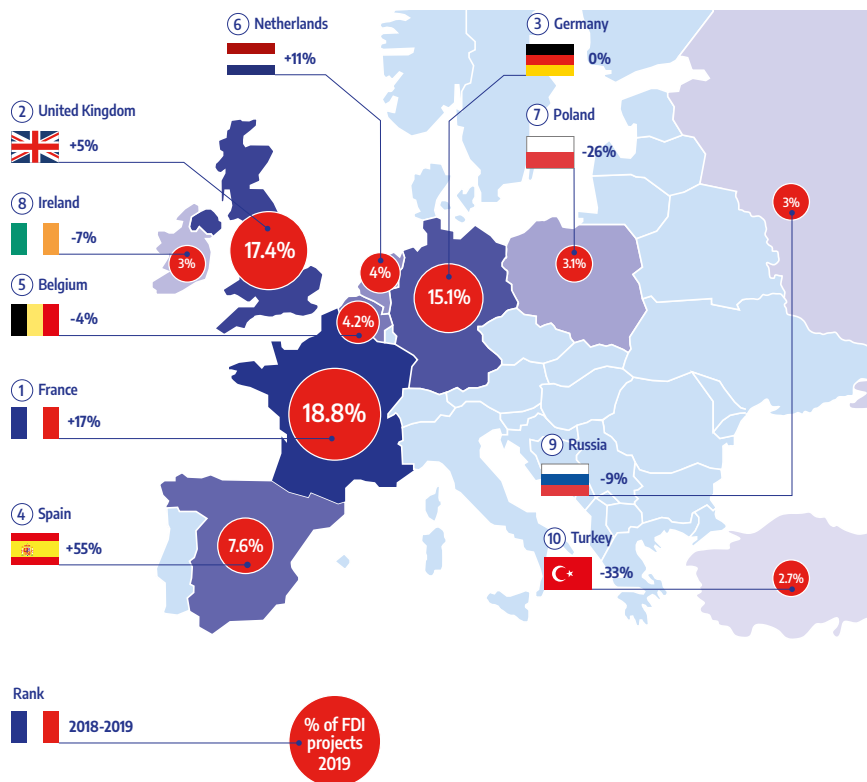
CHANGING NUMBER OF FOREIGN INVESTMENTS IN FRANCE, GERMANY AND THE UNITED KINGDOM (2009-2019)



Source: EY, 2020

FIG. 8

TOP 10 HOST COUNTRIES IN EUROPE FOR FOREIGN INVESTMENT PROJECTS (2019)



Source: EY, 2020

In 2019, France was the leading recipient of **R&D activities in Europe**, attracting 16% of all foreign R&D projects recorded in Europe. The EY France Attractiveness Survey confirmed France's leading position in terms of hosting innovative investments.

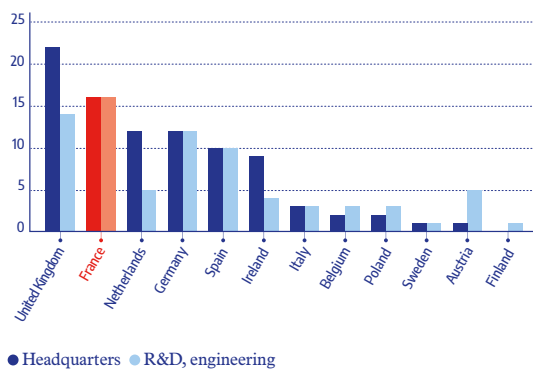
For 69% of foreign executives surveyed as part of the Kantar Public/Business France survey, innovation and R&D are major assets in France's attractiveness compared with other European countries.

In terms of R&D, France's attractiveness in the eyes of respondents is based on the proximity of markets and other company activities (for 86% of executives abroad), the quality of R&D personnel (86%), its network of economic clusters (85%), the possibilities of collaboration with university research teams (82%), and access to state aid for R&D (81%).

The United Kingdom remained however by far the leading country attracting corporate headquarters in 2019, receiving 22% of all such investments in Europe, compared with 16% for France, which was in second position.

FIG. 9

MULTINATIONAL FIRM INVESTMENT DECISIONS BY SECTOR (2019) EUROPEAN MARKET SHARE (%)



Source: Business France Europe Observatory, 2020

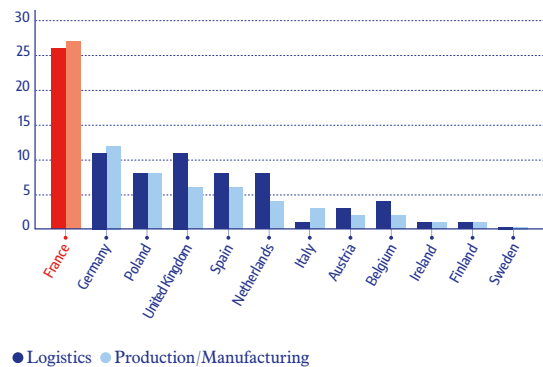
The manufacturing industry only represents around 10% of GDP in France but it is key in terms of attractiveness. The Covid-19 crisis has shown the fragility of excessively fragmented production chains, and the vulnerability of too much dependence on supplies from foreign countries in essential sectors.

Having a strong, diversified and competitive industrial base contributes to the resilience of the economy and the security of our supplies. The development of industry is a key part of the "Relaunch France" plan, and the government will draw on a wealth of resources in 2020, 2021 and 2022 to support investment, innovation and the modernization of the industry.

Thanks to its many key strengths, which include its strong company base, a network of major contractors, solid expertise and robust transport infrastructure, **France was the leading host country in 2019 for industrial investment in Europe.**

FIG. 10

MULTINATIONAL FIRM INVESTMENT DECISIONS BY SECTOR (2019) EUROPEAN MARKET SHARE (%)



Source: Business France Europe Observatory, 2020

The attractiveness of French industry is partly explained by the fact that the increase in the hourly cost of labor in the market sector has been more moderate in France than in the euro zone since 2012 (+5.4%, compared with +7.1% in the euro zone and +11.4% in Germany). In the manufacturing industry, the hourly cost of labor is growing much less quickly than in France’s main European partner countries; it stood at €38.70 in the third quarter of 2019, some €4 lower than in Germany, and it has increased by only 1.7% in one year, compared with 2.8% on average in the euro zone, with 3.8% in Germany, 2.0% in Spain and 2.4% in Italy. These differences reflect gaps in the dynamics of hourly wages.

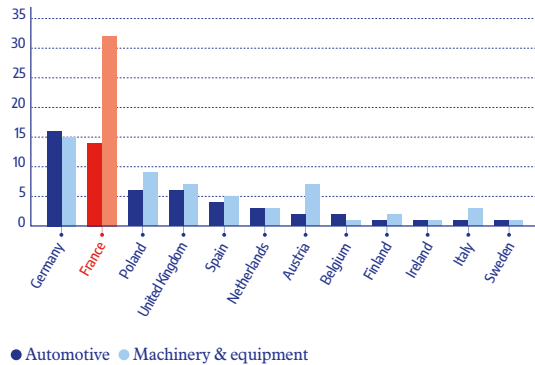
A total of 76% of investments in manufacturing production activities were expansions to pre-existing sites, while 13% were new openings. Thus, in 2019, there were 287 expansions to industrial sites and 50 new factories created. It should be noted that the establishment of new production sites (+35%) grew faster than the expansions (+15%).

Two-thirds of foreign investment in the manufacturing sector originates from the United States, Germany, Belgium, Italy, Japan, the United Kingdom and Switzerland, with the United States being the leading foreign investors in France in this area. Half of production investments are concentrated in the machinery and mechanical equipment (14%), agri-food (11%), chemicals and plastics (11%), automotive (8%), and the construction/building materials (8%) sectors.

From a sector-based perspective, France is the leader in Europe for investments in the machinery and mechanical equipment sector, where it receives 32% of foreign investments in Europe.

FIG.11

MULTINATIONAL FIRM INVESTMENT DECISIONS BY SECTOR (2019)
EUROPEAN MARKET SHARE (%)

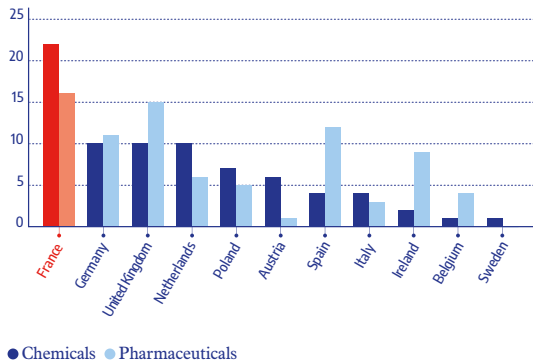


Source: Business France Europe Observatory, 2020

France is a preferred destination for foreign investment in the **pharmaceuticals and biotechnologies sector**, attracting 16% of foreign investment projects in Europe in 2019.

FIG. 12

MULTINATIONAL FIRM INVESTMENT DECISIONS BY SECTOR (2019)
EUROPEAN MARKET SHARE (%)

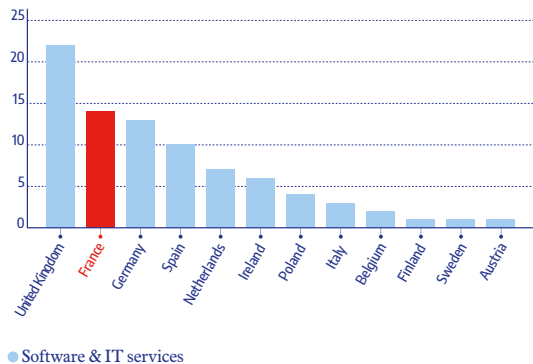


Source: Business France Europe Observatory, 2020

In 2019, France hosted 13% of foreign investments in the **software and IT services sector**, a similar level to the United Kingdom.

FIG. 13

MULTINATIONAL FIRM INVESTMENT DECISIONS BY SECTOR (2019)
EUROPEAN MARKET SHARE (%)



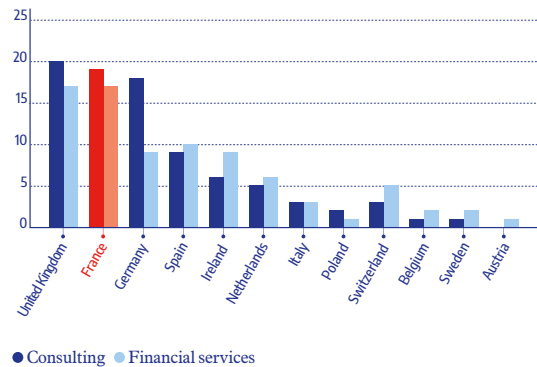
Source: Business France Europe Observatory, 2020

Finally, thanks to Brexit, **France is now ranked first among the host countries for investments in the financial services sector**. Many key players in the sector have announced their decision to set up in France, leading in 2019 to there being a 48% growth in investment projects in the financial sector.

Among the most important projects in 2019 was the relocation of the headquarters of the US insurance company Chubb from London to Paris, creating 50 jobs; US financial firm Morgan Stanley's decision to create a new trading center in Paris, resulting in 80 new roles; and Goldman Sachs's decision to transfer some of its teams and operations to Paris.

FIG. 14

MULTINATIONAL FIRM INVESTMENT DECISIONS BY SECTOR (2019)
EUROPEAN MARKET SHARE (%)



Source: Business France Europe Observatory, 2020

The European Banking Authority also quit London to set up in Paris in the first quarter of 2019, creating 150 jobs.

1.3

CONTRIBUTION OF FOREIGN SUBSIDIARIES TO THE FRENCH ECONOMY

The subsidiaries of foreign businesses in France play an important role in the French economy through various channels, such as employment, contribution to the creation of value added and R&D expenditure in France.

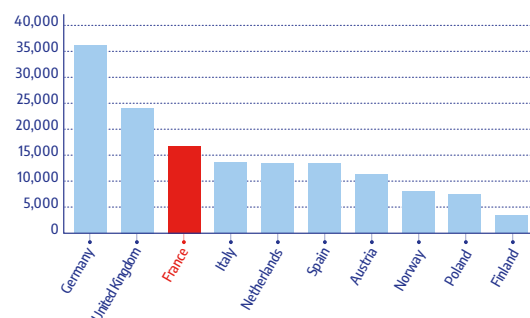
The IFATS (Inward Foreign Affiliates Statistics) European survey, conducted in France by INSEE based on responses made by group headquarters, enables us to measure these effects.

The share held by non-residents in the market capitalization of French businesses is further proof of the openness and attractiveness of France's economy.

The number of foreign subsidiaries in France stood at 17,000 in 2017, according to the latest data available from the INSEE subsidiary survey, with France being the fourth European host country for foreign subsidiaries after Germany, Romania and the United Kingdom. These subsidiaries generated revenues of €768 million in 2017 (third in Europe, after Germany and the United Kingdom, with around €1.5 billion in revenues each) and employed 2.2 million people, placing it third in Europe after the United Kingdom (3.7 million) and Germany (3.6 million), accounting for more than 8% of jobs in France.

FIG. 15

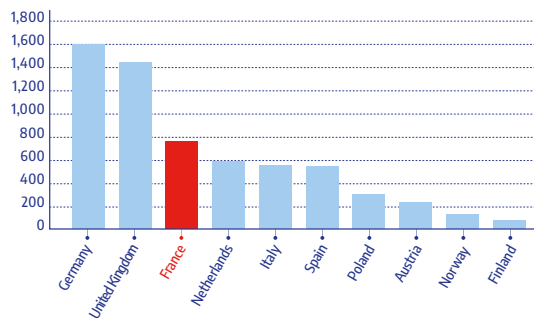
NUMBER OF FOREIGN SUBSIDIARIES (2017)



Source: IFATS, Eurostat

FIG. 16

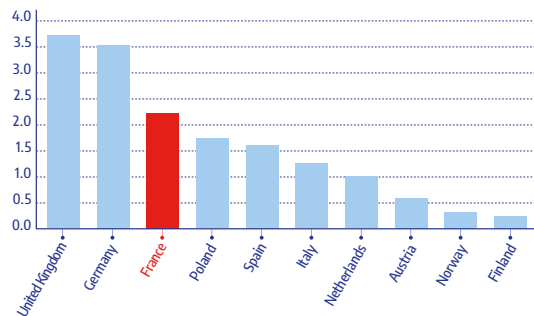
REVENUES GENERATED BY FOREIGN SUBSIDIARIES
€ BILLION



Source: IFATS, Eurostat

FIG. 17

EMPLOYMENT GENERATED BY FOREIGN SUBSIDIARIES
MILLION

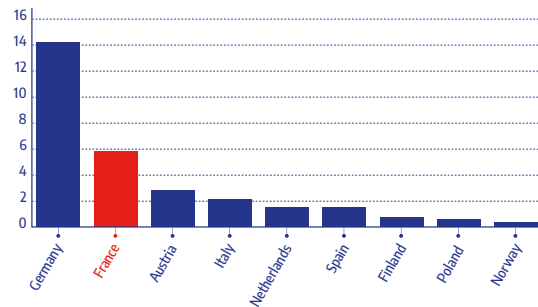


Source: IFATS, Eurostat

The subsidiaries of foreign businesses in France make a significant contribution to R&D expenditure across the country. The total amount of R&D expenditure spent internally by these subsidiaries was €5.9 billion in 2017, or nearly 25% of the total R&D expenditure in France over the year. This is the second highest amount recorded by Eurostat in 2017 among European countries after Germany (€14.3 billion).

FIG. 18

R&D EXPENDITURE CARRIED OUT BY FOREIGN SUBSIDIARIES
€ BILLION

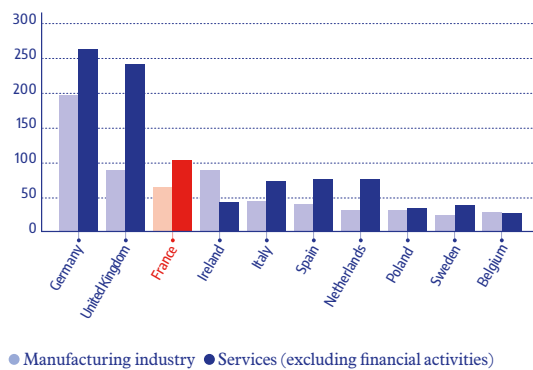


Source: IFATS, Eurostat

In terms of value added created, the contribution of foreign subsidiaries was €65 billion in the manufacturing industry, where France was ranked fourth in Europe, after Germany (€196 billion), the United Kingdom and Ireland (both €88 billion), and was €102 billion in services, where France was third in Europe, after Germany (€264 billion) and the United Kingdom (€242 billion, excluding financial services).

FIG.19

VALUE ADDED BY FOREIGN SUBSIDIARIES € BILLION



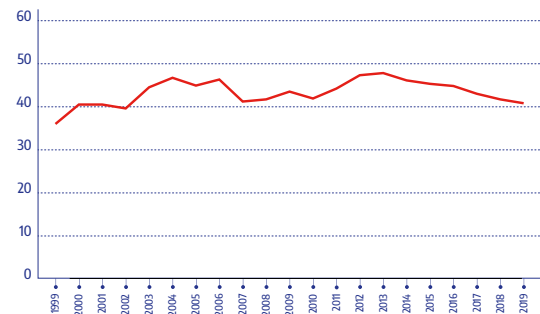
Source: Eurostat, 2020

Further testament to the attractiveness of the French economy is the number of foreign shareholders who hold a share in the capitalization of the Paris marketplace.

According to the Banque de France, the share of non-resident equity holdings in French companies on the CAC 40 amounted to 40.8% at the end of 2019, or €686 billion, after having reached a peak in 2013 (47.8% in 2013). Non-resident equity holdings in the CAC 40 were split between portfolio investments (91%) and individual direct investments (participations over 10% of the share capital), which made up the remaining 9%. A total of 43% of non-resident investors were from the euro zone, compared with 34% from the United States and 6% from the United Kingdom.

FIG.20

NON-RESIDENT EQUITY HOLDINGS IN CAC 40 COMPANIES %



Source: Banque de France

1.4 FOREIGN SKILLS

The ability to train foreign-born talent enhances as much as it determines a country's international reputation and attractiveness.

With nearly 260,000 international students enrolled in tertiary education in 2018, France was the fifth most popular destination in the world after the United States, the United Kingdom, Germany and Australia, and was the second leading non-Anglophone nation.

The strong international development of the French economy has had a positive impact on the higher education ecosystem. Foreign students figure strongly in high-level training programs linked to research, representing 38% of all PhD students. To ensure this international mix of French research teams, the CNRS has recruited around 30% of foreign researchers each year since 2010.

In addition, several mechanisms have been put in place in recent years to attract and facilitate the reception of highly qualified foreign workers.

In 2018, the number of students in tertiary education abroad amounted to 5.6 million, twice as many as in 2005. The number of foreign or internationally mobile students increased by 4.8 % on average per year between 1998 and 2018. The OECD countries receive a large majority of foreign or international students, but the number of foreign students undertaking studies in OECD partner countries has increased at a faster rate: 6.2% per year on average, compared with 4.3% among OECD countries.

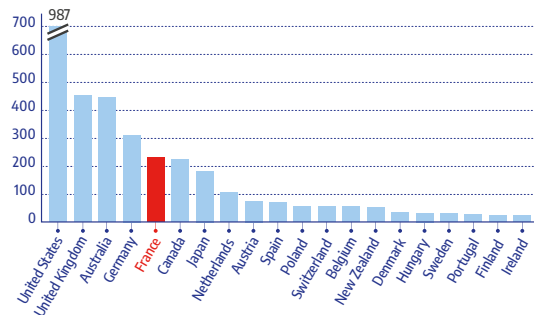
The European Union is a preferred destination for many students. The 23 OECD countries that are also EU members welcome 1.7 million international students every year. After the United Kingdom, Germany and France are the main European destinations for these students, with each country welcoming nearly 260,000 students.

According to Campus France, the number of foreign students in France was expected to reach 358,000 in 2019, 4.3% more than in 2018.

France is ranked fifth in the world for welcoming international students and it is **the second leading non-Anglophone nation**.

FIG. 21

NUMBER OF INTERNATIONAL STUDENTS BY HOST COUNTRY
TOP 20 (2019)



Source: OECD, Education at a Glance, 2020

“Welcome to France” plan

In November 2018, the Prime Minister presented the national strategy to attract international students to France.

The objective was to increase the number of new international students in France through a simplification of

the visa policy, an increase in French as a Foreign Language (FFL) courses and the introduction of programs taught in English.

The strategy also provided for an increase in tuition fees, with the amount payable dependent on a

particular student’s qualifications and their family’s income.

Lastly, the plan sought to improve and standardize the living conditions for international students by creating a quality accreditation and to triple the number of scholarships available.

France hosts 6% of the number of internationally mobile students in OECD member and partner countries (or around 5% of the global workforce). It should be noted that France welcomes students from all continents and in particular a large proportion of students from Africa (Cf. Fig. 22).

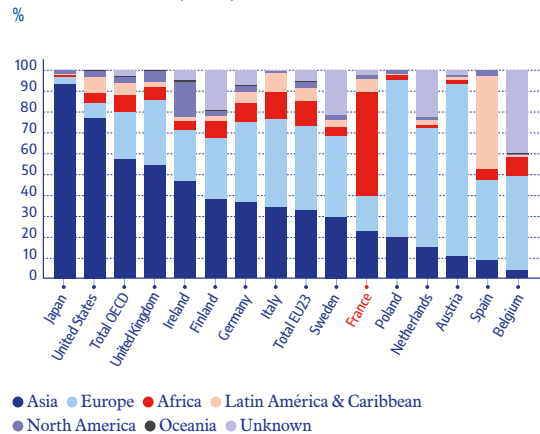
Similarities between countries, including shared languages, historic ties, geographic proximity, and political agreements (such as the European Higher Education Area) all have a significant influence on the destination choices made by international students.

The reputation of the French language, French culture and the excellent reputation of the French tertiary education system are key advantages to attract foreign students to France. Countries where teaching establishments achieve high positions in international league tables are among the most sought-after destinations by international students.

Half of international students at institutions in France were from African countries (50%), while most of those studying in Germany were from other European countries (39%). Asia was the second leading source region of foreign students in France (22%), followed by Europe (17%).

FIG. 22

DISTRIBUTION OF INTERNATIONAL AND FOREIGN STUDENTS BY REGION OF ORIGIN (2018)



Source: OECD, *Education at a Glance*, 2020

Students are more internationally mobile at higher levels of education. In tertiary education, internationally mobile students accounted for only 3% of the class size on short cycle courses and 5% of class size at degree level, but 22% at PhD level.

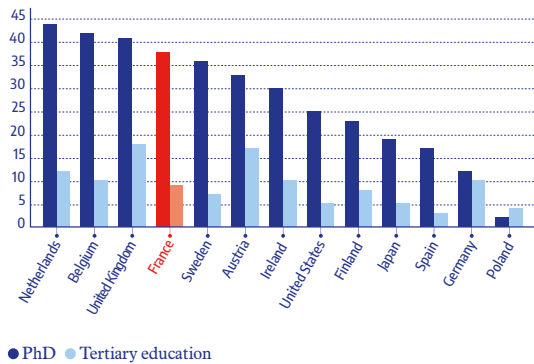
In 2018, internationally mobile students accounted for 9% of all students enrolled in tertiary education in France, compared with 18% in the United Kingdom and 10% in Germany.

France stands out for its very high proportion of international students following advanced research programs:¹ 38% of its PhD students are from overseas. Conversely, in Germany, only 12% of PhD-level students are from foreign countries.

To ensure this international mix of French research teams, the CNRS has recruited around 30% of foreign researchers each year since 2010. Like the CNRS, many French research centers regularly publish specific positions for foreigners and invite teachers from all over the world.

FIG. 23

PROPORTION OF INTERNATIONAL STUDENTS IN HIGHER EDUCATION (2019)



Source: OECD, Education at a Glance, 2020

In 2019, permanent labor migration in OECD countries recorded a sharp increase (+13% in countries for which data is available). Half of the countries recorded double-digit increases, including the United Kingdom (+42%), Finland (+29%), Luxembourg (+29%), Japan (+17%) and France (+12%), with the data relating predominantly to the arrival of highly skilled workers.

In France, around 7,150 scientific visas in 2019 were issued to researchers who were not nationals of the European Union or the European Economic Area: 34% were for stays of less than or equal to three months and 66% for stays going beyond this time frame. For long-stay visas (duration greater than three months), 70% were issued to nationals of the following countries: China, Brazil, India, Algeria, Tunisia, United States, Lebanon, Iran, Morocco and Japan.

¹ Advanced research program = degree equivalent to a PhD.

Legislation on foreign talent

After a reform of the law safeguarding the rights of foreigners in France in 2016, the country continued in 2017 with the implementation of the provisions relating in particular to economic migration (creation of multi-year residence permits, new residence permits for foreign talent, etc.) with the publication of numerous decrees for the application of the Act of March 7, 2016 safeguarding the rights of foreigners in France.

It also worked to implement the EU Directive 2016/801 of May 11, 2016 for the purposes of research, studies,

training, volunteering and exchange programs involving students and au pairs.

In 2017, the “French Tech Visa” scheme, aimed at attracting innovative businesses, startups and foreign investors, was launched. The France-Visas portal went live in October 2017 to facilitate online visa applications.

The Act of September 10, 2018 on immigration and asylum extended the duration of the “Talent Passport” residence permit, first created in 2016, to four years. This permit can

now be issued to members of the family (spouse and children) without having to go through the family reunification procedure. A detailed email was sent to the prefectures on December 17, 2019, which presents areas for improvement concerning the organization of processing of requests.

The 2018 Act established new temporary residence permits for certain categories of students and researchers (job search card or business creation card, etc.), as well as for au pairs.

The “Welcome to France” Label

The quality of the care offered to international students is key to the international development and the attractiveness of our higher education system. With this in mind, Campus France has created the “Welcome to France” label, which will be awarded to higher education establishments

wishing to make visible their efforts to improve the quality of the welcome shown to international students.

The “Welcome to France” certification is part of an overall quality approach for institutions, serving as a tool for measuring, describing and promoting

their systems and services dedicated to international students. It is used for the communication and promotion of institutions, to target an audience of international students, who are becoming increasingly demanding when it comes to the welcome they receive.

Welcome to France

As part of its mission to attract job-creating foreign investment, Business France has developed an international mobility service, named the “Welcome Office”, to help investors send the necessary foreign employees to France to complete their setup plan and develop their activity (intra-group mobility and recruitment of specific skills).

This service created in 2017 is in charge of informing investors about the

procedures to be carried out to come to France (visa/residence permit/work permit, personal taxation, social protection, other aspects of daily life) and facilitating the arrival of foreign talent and their families. The information is organized around a website, www.welcometofrance.com, which offers the possibility of completing an online course to learn the necessary steps to successfully settle in France.

As of October 1, 2020, and after a little over three years in existence, there were:

- 1,385,212 visitors to www.welcometofrance.com, with 50,000 visits per month on average in 2019.
- 56,731 tailor-made pathways generated.
- 4,114 people and/or businesses contacted the dedicated support team for help.



FRANCE
ATTRACTIVENESS

CHAPTER 02

ATTRACTIVENESS CRITERIA

Market size and strength

→ 36

Education and human capital

→ 42

Research and innovation

→ 48

Infrastructures

→ 56

Administrative and regulatory environment

→ 64

Financial environment

→ 72

Cost of labor and taxation

→ 80

Quality of life

→ 94

Energy and green growth

→ 106

2.1

MARKET SIZE AND STRENGTH

The size of a country's market (measured notably by GDP) and its strength are often decisive criteria for multinational firms deciding where to locate.

In 2019, France was the world's seventh largest economy after the United States, China, Japan, Germany, India and the United Kingdom.

France's central location and high quality, multimodal transport infrastructure makes it a potential hub for Europe and Africa.

France has every reason to be confident about its future, thanks to its strong population growth and a fertility rate that is amongst the highest in Europe. For businesses, the strength of investment in France in recent years and their resilience

in the face of the economic crisis, in particular thanks to the support measures and the recovery plan presented by the French government, are both encouraging signs of a return to growth.

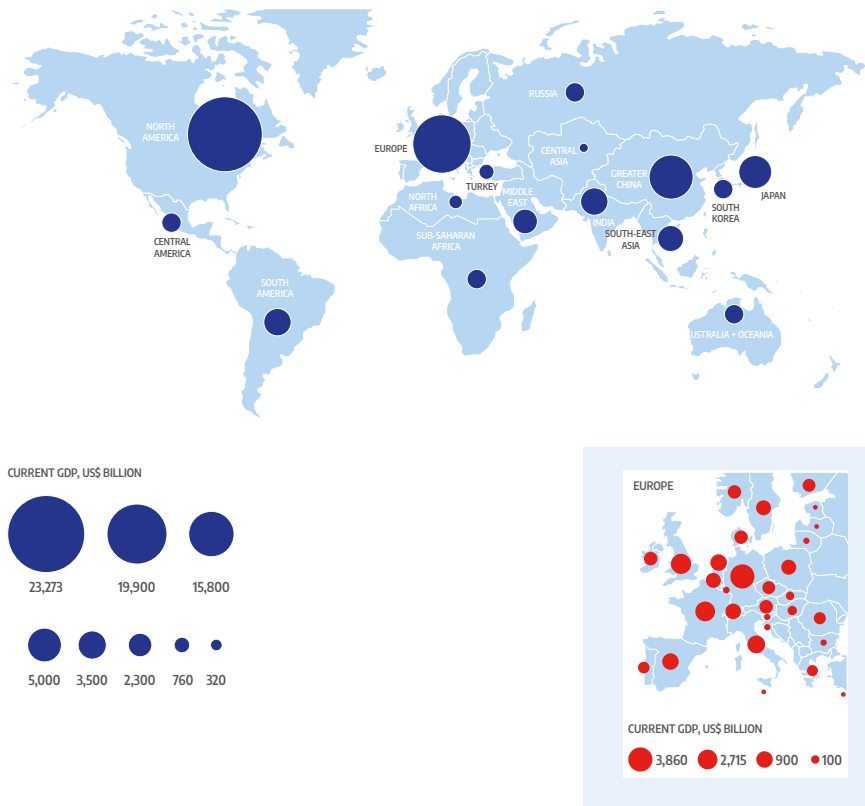
In 2019, **France was the world's seventh largest economy (US\$2,716 billion)**, after the United States (US\$21,433 billion), China (US\$14,732 billion), Japan (US\$5,080 billion), Germany (US\$3,862 billion), India (US\$2,869 billion) and the United Kingdom (US\$2,831 billion) (cf. Fig. 1).

Moreover, the European Union was the world's second largest market: EU-28 GDP was estimated to be US\$21,620 billion in 2019, compared with US\$24,530 billion for North America.¹

¹ World Economic Outlook, October 2020, IMF

FIG.24

DISTRIBUTION OF GLOBAL WEALTH (2019)
CURRENT GDP, US\$ BILLION



Source: IMF, World Economic Outlook Database, October 2020

French growth continued to be buoyant in 2019 (+1.5%) despite the global slowdown, with household consumption soaring, solid investment and gains in export performance. This has resulted in exports remaining strong, despite the slowdown in global demand.

In 2020, there was a solid rebound in activity in the third quarter of the year (+18.2%), following losses in the first (-5.9%) and second (-13.7%) quarters. Between the end of 2019 and the third quarter of 2020, activity fell as much in France as in Germany, which was however much less affected by the coronavirus epidemic.

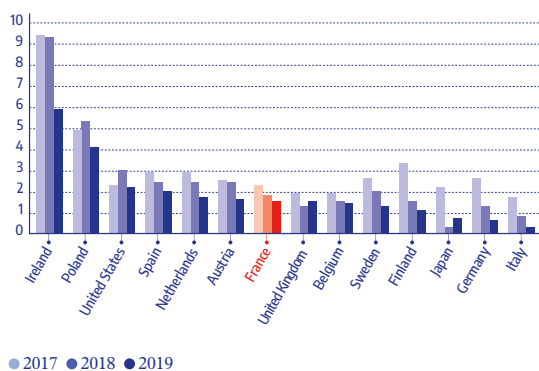
This shows the effectiveness of the measures put in place by the government and the potential for a rebound in French activity. French economic activity will however slow down at the end of 2020 as a result of the resurgence of the epidemic and the measures taken to contain it.

Protecting businesses, jobs and skills is the primary goal of economic policies. The government has drawn on the necessary resources to mitigate the negative impact of the Covid-19 crisis and allow for a marked recovery once the epidemic is contained, notably by deploying a set of measures in support of businesses.

These include payment deferrals for social security contributions and taxes, quicker reimbursement of certain tax claims made by businesses, the establishment of a huge system of loans guaranteed by the State and the possibility for businesses to introduce short-time working. The “Relaunch France” Plan (see box) will help support activity in the short- and medium-term and allow France to emerge stronger from this crisis.

FIG. 25

COMPOUND ANNUAL RATE OF REAL GDP GROWTH
%



Source: IMF, World Economic Outlook Database, October 2020; Business France calculations from data series in local currencies at constant prices

“Relaunch France” plan

In order to regain the pre-crisis level of economic activity within two years and to actively support employment, the Prime Minister, following extensive consultation, presented the “Relaunch France” plan on September 3, 2020.

This unprecedented recovery program, launched by the government and worth €100 billion over two years, focuses on three main areas: the **environment** – the strategic aim of this plan – to support the transition to a more carbon-free and sustainable economy; **competitiveness** to give businesses the most favorable conditions to develop their activities and thus preserve employment; and **cohesion** to support youth employment and guarantee solidarity between generations, regions, and all French people.

- **Environment:** The first part of the recovery plan will draw on **€30 billion** to finance the ecological transition in all its dimensions. It will be based on the implementation of energy renovation measures for buildings, decarbonization of industrial sites, development of green infrastructure and mobility, as well as green energies and technologies, and measures in favor of biodiversity, the agricultural transition and the fight against soil artificialization.

Some of these measures will result in a **direct reduction in greenhouse gas emissions**, compared with a recovery without any environmental considerations – with generated

savings estimated at 57 million tonnes of CO₂ throughout the lifetime of the projects.

- **Competitiveness:** The second part of the recovery plan will allocate **€34 billion** to strengthen businesses’ competitiveness, in particular to develop the industrial productive base in innovative sectors, gain autonomy of supply for France’s most sensitive products, in the form of support for the relocation of critical sectors, and thus consolidate French and European economic power.

In this regard, the recovery plan includes measures for a **significant and lasting reduction in production taxes** (€20 billion over two years), and for boosting the capital of micro-enterprises, SMEs and mid-size companies in two major ways: the creation of the “Relaunch France” label, to promote investment vehicles that seek to bolster the capital of businesses in France; and the State guarantee for the granting of up to €20 billion in participatory loans by banking networks to businesses with a viable medium-term model that have been weakened by the crisis. The plan also envisages a huge investment in the technologies of the future (financial aid for innovation, development of key markets).

- **Cohesion:** The third component of the plan, amounting to **€36 billion**, will be dedicated to the preservation and development of skills, as well as social and regional cohesion. It will aim to safeguard jobs and

skills through the deployment of **long-term short-time working** accompanied by a training plan, in order to generate recruitment, in particular of young people, through the deployment of the “one young person, one solution” initiative, and to boost **vocational training**.

It will also feature a huge investment plan for healthcare, with the implementation of the Ségur healthcare investment measures. Moreover, the recovery plan will strengthen both social (support for the purchasing power of households experiencing poverty) and regional cohesion (digital inclusion, Banque des Territoires recovery plan, revitalization of businesses in urban centers, support for local authorities).

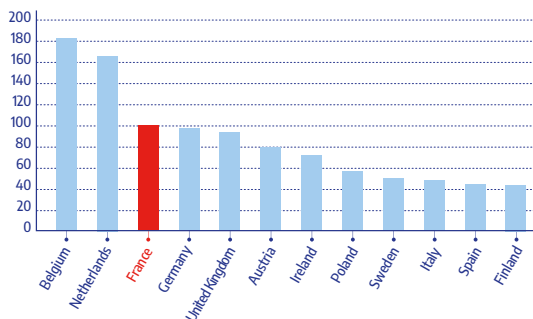
All of these measures will **increase growth by 1.5 percentage points from 2021**, in particular by supporting the purchasing power of households, and by rolling out ambitious public investments; but also by preparing for growth for the next decade, and by accelerating the transformations of France’s economy towards a more competitive, more innovative and more prosperous model.

France's location at the heart of Europe and the size of its domestic market mean that it has high market potential. Within the European Union, market potential of a country can be estimated as the sum of the GDPs of all the countries weighted by the inverse of the bilateral distance.

According to this “access to EU-28 markets” criterion, France was ranked third in 2019, ahead of Germany and the United Kingdom. Consequently, a foreign business will be minded to set up in France, where domestic demand is high and where it can enjoy easy access to other European markets.

FIG. 26

ACCESS TO EU-28 MARKETS (2019) IN COMPARISON WITH FRANCE INDEX FRANCE = 100



Source: IMF, World Economic Outlook Database, October 2020; Mayer, T. & Zignago, S. (2011), Notes on CEPII's distances measures: the GeoDist Database, CEPII Working Paper 2011-25; Business France calculations

METHODOLOGY:

ACCESS TO EXTERNAL MARKETS

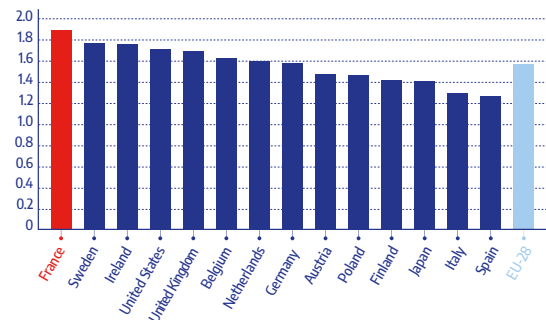
The access to external markets variable is based on a broader concept than GDP. It is similar to the concept of trade potential and takes a country's external demand into consideration.

This indicator is calculated for EU-28 markets. A country's trade potential is defined as the sum of the GDP of its neighboring countries weighted by the distance between them.

France also enjoys a vibrant demographic profile, and has **Europe's highest fertility rate, with nearly two children per woman (1.9) in 2018.**

FIG. 27

FERTILITY RATE (2018) CHILDREN PER WOMAN, ALL AGE GROUPS



Source: Eurostat (EU-28) and World Bank (United States and Japan), 2019

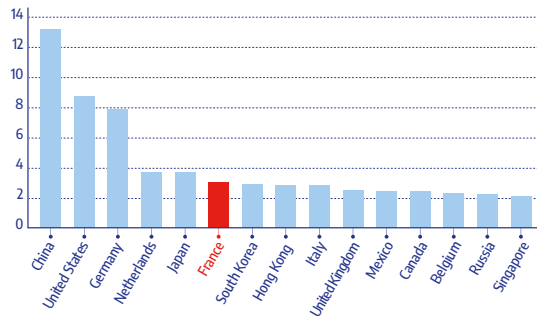
Forecasts looking ahead to 2080 (excluding migration) emphasize that France’s high fertility rate will enable it to stabilize its population, whereas most other major European nations are due to see falls.

The flattening out of France’s share of world trade revenues observed since 2012 continued into 2019.

In 2019, with 3% of global goods export sales revenues, France was ranked sixth in the world and third in Europe, after China (13.2%), the United States (8.7%), Germany (7.9%), the Netherlands (3.7%) and Japan (3.7%).

FIG. 28

GOODS EXPORTS (2019)
MARKET SHARE OF 15 LEADING ECONOMIES
% OF GLOBAL EXPORTS

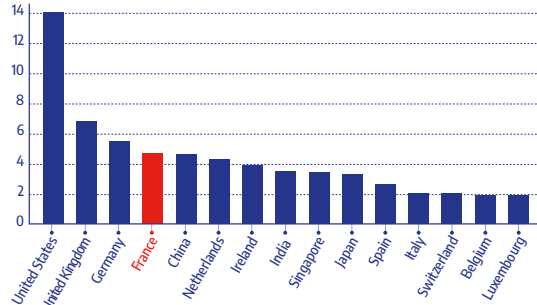


Source: WTO, 2020; Business France calculations

France maintained its position as the world’s fourth leading economy for exports of services, with a market share of 4.7%, equivalent to US\$287 billion in exports. The United States (14%) was top, followed by the United Kingdom (6.8%) and Germany (5.5%).

FIG. 29

SERVICES EXPORTS (2019)
MARKET SHARE OF 15 LEADING ECONOMIES
% OF GLOBAL EXPORTS

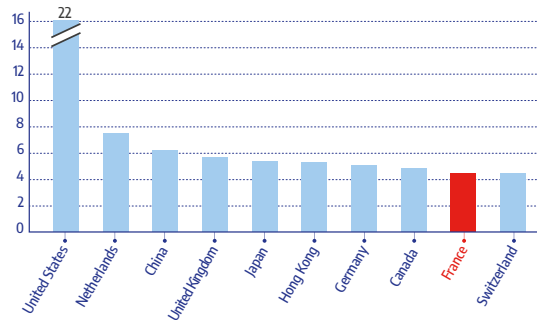


Source: WTO, 2020; Business France calculations

France fully embraces globalization and is **one of the world’s leading investor countries. In 2019, France was the eighth largest economy in terms of outward foreign direct investment (FDI) stocks (4.4% of global stocks), after the United States (22%), the Netherlands (7%), China (6%), the United Kingdom (5.6%), Japan (5.3%), Hong Kong (5.2%), Germany (5%) and Canada (4.8%).**

FIG. 30

MARKET SHARE OF FDI OUTFLOWS (2019)
10 LEADING WORLD ECONOMIES
% OF GLOBAL FDI OUTFLOW STOCK



Source: UNCTAD database, 2020

2.2 EDUCATION AND HUMAN CAPITAL

France has a highly qualified workforce and continues to invest in education, tertiary education and lifelong learning to maintain its competitive advantage and consolidate its scientific skills base.

Training, tertiary education and research are all key drivers of a country's competitiveness and investment attractiveness. Tertiary education provision enables students to acquire a broad range of knowledge, skills and attitudes to build the society of the future. Vocational training is essential, especially for the less qualified, but also to facilitate retraining and mobility.

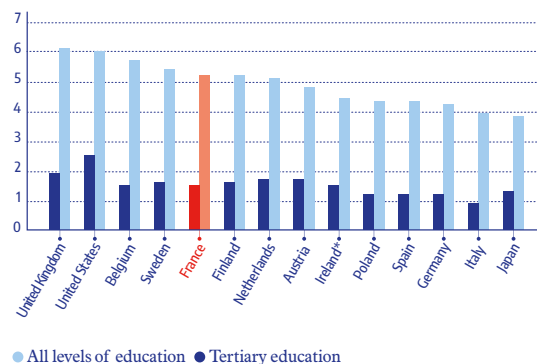
This results in a more productive workforce and a stronger economy. Labor productivity in France is one of the highest in the world, with the ninth highest productivity per capita among OECD countries in 2019.

Investment in education and training for the younger generation determines an economy's future productivity.

Keen to consolidate its position as a global economic power, France invests heavily in education: **expenditure on education in France equated to 5.2% of GDP in 2017**, with 1.5% of GDP invested in tertiary education.

FIG. 31

TOTAL EXPENDITURE* ON EDUCATION (2017)
% OF GDP



● All levels of education ● Tertiary education

* Data for 2016

Source: OECD, Education at a Glance, 2019

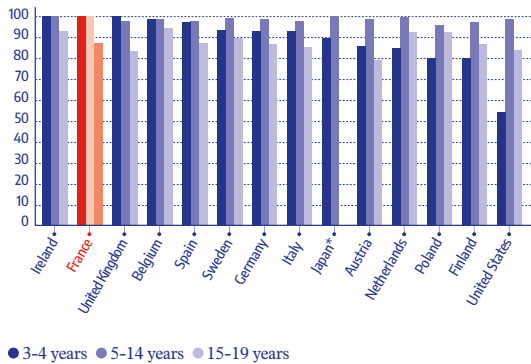
Increasing human capital and education are priorities for the government. France's commitment is reflected in statistics on schooling, participation in education, and educational achievement.

Levels of schooling in France were very high in 2018. The 3- to 4-year-old and 5- to 14-year-old age categories achieved a 100% enrollment rate in 2018, while the 15- to 19-year-old category managed 87%.

The lower rate for 15- to 19-year-olds is a result of schooling being compulsory in France up to the age of 16 and now from as young as three. The government recently introduced a minimum age for leaving education and training of 18, so that no pupils are left in a situation where they are not in education, training or employment. This system was introduced at the start of the 2020 school year.

FIG. 32

ENROLMENT RATE (2018)
% OF AGE CATEGORY

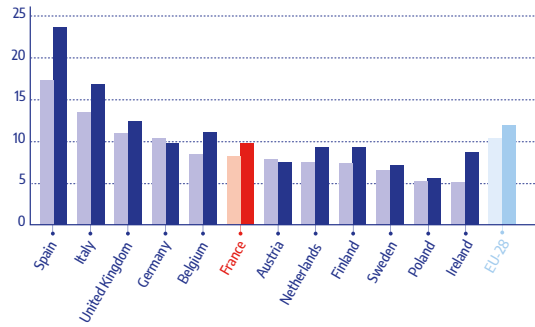


* Data for 2015 for the 15- to 19-year-old group
Source: OECD, Education at a Glance, 2020

The percentage of young people dropping out of education and training early is falling sharply in France. Having been in excess of 11% until 2012, this percentage had fallen to 8.2% in 2019, lower than in Germany (10.3%) and the United Kingdom (10.9%), and below the EU-28 average (10.3%).

FIG. 33

EARLY LEAVERS FROM EDUCATION AND TRAINING
% OF 18- TO 24-YEAR-OLDS



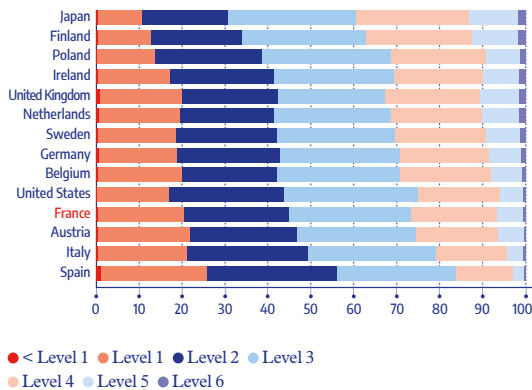
● 2019 ● 2013
Source: Eurostat, 2020

An assessment of the performance of 15-year-old students (PISA survey) puts France in line with the average, similar to the United States and Austria.

As regards scientific literacy, 6.5% of 15 year-old students achieved the two highest levels in 2018. This is a similar level to Austria (6.3%) and Ireland (5.9%), but higher than Italy (2.8%) and Spain (4.2%), and lower than Germany (10%) and the United Kingdom (9.7%).

FIG. 34

SCIENTIFIC LITERACY OF 15-YEAR-OLD STUDENTS (2018)
IN DESCENDING ORDER OF MEAN SCORE
% OF PUPILS RANKED BY LEVEL



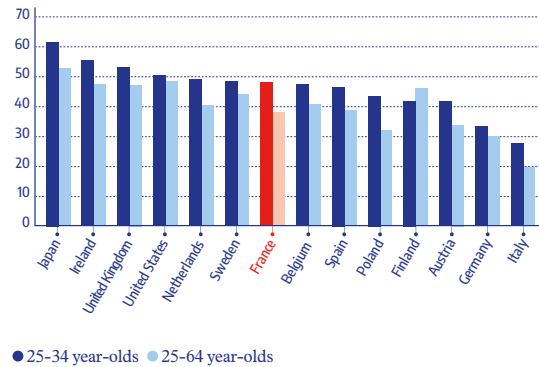
Source: OECD 2019, PISA results 2018 (Volume I)

In 2019, 37.9% of 25- to 64-year-olds in France had tertiary education qualifications, lower than in the United States (48.4%) and the United Kingdom (47.2%), but higher than in Germany (30%). This difference is due to access to tertiary education being democratized later in France, which has since caught up.

Consequently, the population of 25- to 34-year-olds is particularly highly qualified in France: 48.1% of people in this age category gained a tertiary education qualification in 2019, similar to the level in Belgium (47.3%) and in Sweden (48.4%), but lower than in the United Kingdom (51.8%) and Ireland (55.4%), and higher than in Germany (33.3%), Italy (27.7%) and Finland (41.8%).

FIG. 35

TERTIARY EDUCATION GRADUATES (2019)
% OF AGE CATEGORY



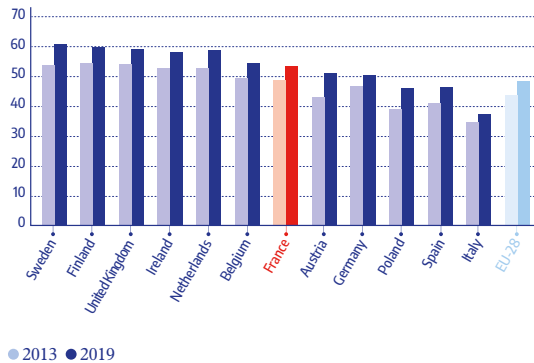
Source: OECD, Education at a Glance, 2020

Human resources in science and technology (HRST) are one of the key drivers of knowledge-based economies. Aside from tertiary education graduates, they include people in scientific and technological occupations requiring advanced qualifications.

In France, HRST accounted for over half the working population in 2019 (53.4%). France is one of the countries where human resources in sciences and technology account for a significant proportion of the working population, after the United Kingdom (59.1%) but ahead of Germany (50.3%).

FIG. 36

HUMAN RESOURCES IN SCIENCE AND TECHNOLOGY (2019)
% OF ECONOMICALLY ACTIVE 25- TO 64-YEAR-OLDS



● 2013 ● 2019

Source: Eurostat, 2020

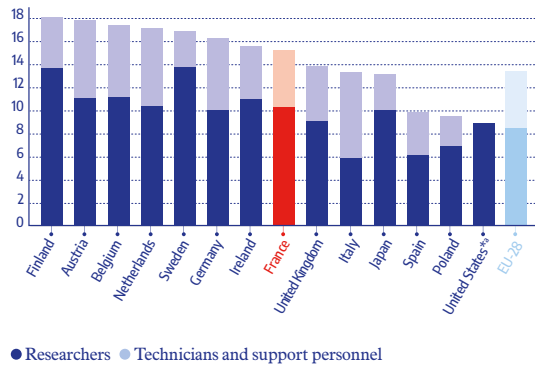
France is also well placed for numbers of researchers, with 10.3 researchers per 1,000 members of the working population in 2018, a similar level to Germany (10), and better than the United Kingdom (9.1) and the United States (8.9).

In terms of vocational training, France is committed to strengthening the skills of individuals, notably through the Act for the freedom to choose their professional future. As such, France is one of the only countries in the world to offer a personal training account, which is credited annually with €500 for full-time employees up to a ceiling of €5,000, and with €800 up to a ceiling of €8,000 for the least qualified.

France is also investing €15 billion between 2018 and 2022 to strengthen the means to promote access to training for low-skilled young people and the long-term unemployed through the Skills Investment Plan. As part of the “Relaunch France” plan, it is investing an additional €3 billion to preserve skills and promote retraining. According to Eurostat data, France is above the European average (10.8%) in terms of adults (25-64 years) undertaking vocational training, with a rate of 19.5%.

FIG. 37

R&D PERSONNEL (2018)
PER THOUSAND LABOR FORCE



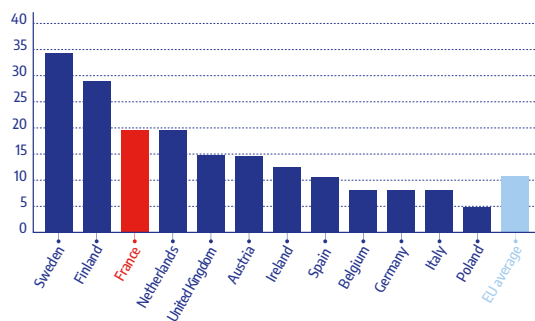
● Researchers ● Technicians and support personnel

* Data for 2017

^a Data only available for the number of researchers
Source: OECD (MSTI), 2019

FIG. 38

PARTICIPATION RATE IN EDUCATION AND TRAINING BY 25- TO 64-YEAR-OLDS
%



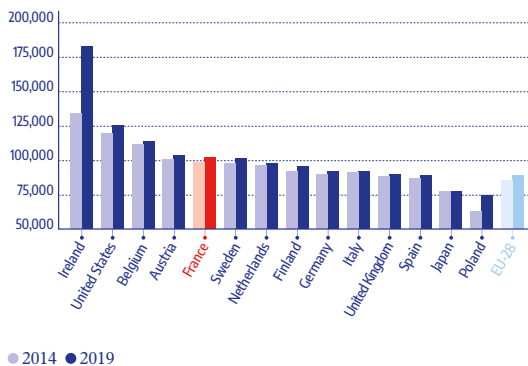
Source: Eurostat

Thanks to this highly qualified workforce, France has one of the world's highest levels of productivity, with the ninth-highest hourly productivity per employee in the world (fifth in our sample) in 2019. Thanks to the capacity to adapt of a well-educated active population, businesses can invest more in new technologies, which are an essential requirement for productivity growth.

Since the 1990s, growth in hourly productivity has gradually slowed in France, as it has in many developed countries. After growing at between +1.5% and +2% per year in the 1990s, hourly productivity declined to grow only +1% during the crisis years (2007 to 2008). In 2019, productivity per employee and hourly labor productivity grew in France by 0.4% and 0.6%, respectively (see "Costs and taxation" section).

FIG. 39

LABOR PRODUCTIVITY PER EMPLOYEE* (2019)
TOTAL ECONOMY - US\$ AT PPP

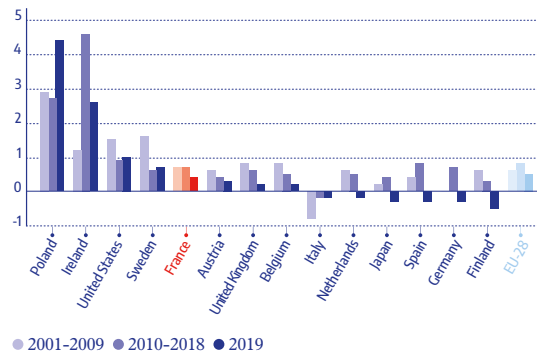


● 2014 ● 2019

* GDP per person employed
Source: OECD, November 2020; Business France calculations

FIG. 40

TRENDS IN LABOR PRODUCTIVITY PER EMPLOYEE*
COMPOUND ANNUAL RATE OF GROWTH - TOTAL ECONOMY
%

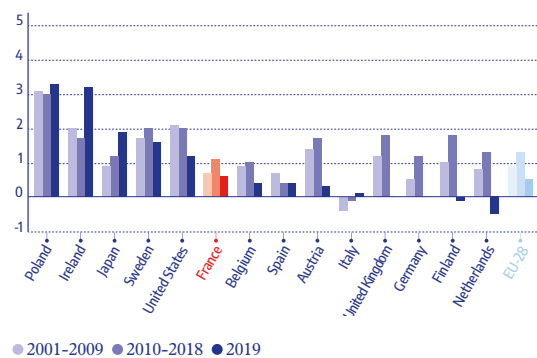


● 2001-2009 ● 2010-2018 ● 2019

* GDP per person employed
Source: OECD, November 2020; Business France calculations

FIG. 41

TRENDS IN HOURLY LABOR PRODUCTIVITY*
COMPOUND ANNUAL RATE OF GROWTH - TOTAL ECONOMY
%



● 2001-2009 ● 2010-2018 ● 2019

* GDP per hour worked
Source: OECD, November 2020; Business France calculations

2.3 RESEARCH AND INNOVATION

Investing in knowledge, innovation and high tech is at the crux of competition between developed economies. Productivity gains achieved through innovation and the dissemination of new technology is supporting growth and competitiveness in the economy.

Dynamic research and innovation operations are yielding growth and ultimately value creation. They are also key factors in attracting international mobile technology and/or knowledge-intensive investment projects.

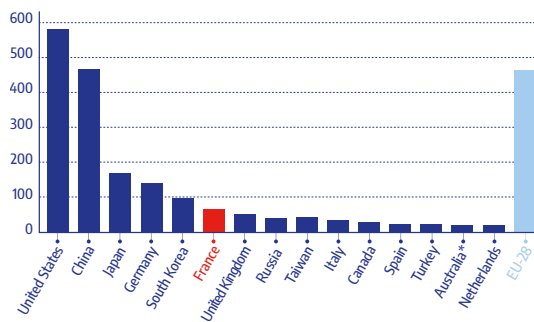
France shows good performances in technological innovation activity, ranking sixth in the world for R&D expenditure, and fourth in our sample for patents filed, as well as for trademark applications and registrations of industrial designs.

Gross domestic expenditure on R&D (GERD) is a key indicator of a country's efforts in the areas of research and development and innovation. In 2018, France spent US\$66 billion on GERD, placing it **sixth in the world** and fourth in our sample. The world's leading countries are the United States (US\$549 billion), China (US\$420 billion), Japan (US\$166 billion), Germany (US\$134 billion) and South Korea (US\$90 billion).

Businesses play a decisive role in financing R&D. **In France, contributions from businesses accounted for 68% of the total gross domestic expenditure on R&D in 2018** (70% on average among the EU-28). Business enterprise R&D expenditure (BERD) amounted to US\$45 billion in France in 2018, ranking it fourth in our sample.

FIG. 42

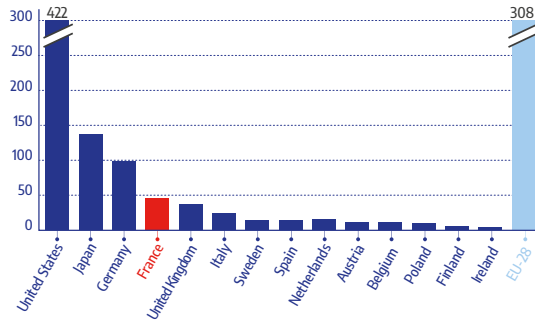
GROSS DOMESTIC EXPENDITURE ON R&D (2018)
15 LEADING ECONOMIES
US\$ BILLION AT CURRENT PRICES AND PPP



* Data for 2017
Source: OECD, 2019

FIG. 43

BUSINESS ENTERPRISE R&D EXPENDITURE (BERD) (2018)
US\$ BILLION AT CURRENT PRICES AND PPP

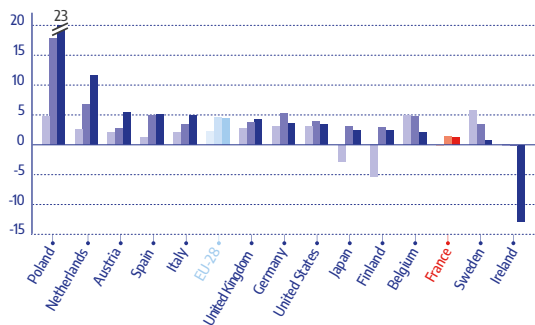


Source: OECD, 2019

Gross domestic expenditure on R&D in France rose by 1.3% in 2018, while in a sign of businesses' buoyant efforts in research and innovation activities business enterprise R&D expenditure also rose by 1.5%. Among the EU-28, GERD was up 4.4% in 2018, while BERD also rose 5.1%.

FIG. 44

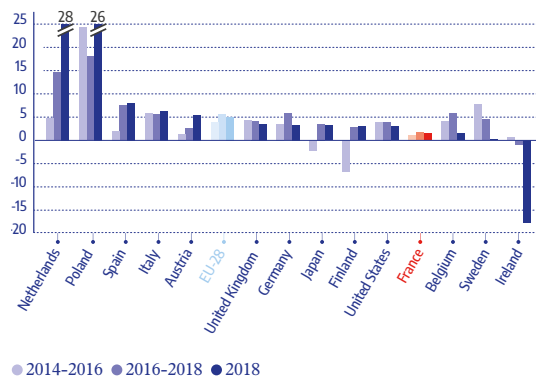
TRENDS IN GROSS DOMESTIC EXPENDITURE ON R&D
REAL COMPOUND ANNUAL RATE OF GROWTH



Source: OECD, 2019; Business France calculations

FIG. 45

TRENDS IN BUSINESS ENTERPRISE R&D EXPENDITURE
REAL COMPOUND ANNUAL RATE OF GROWTH

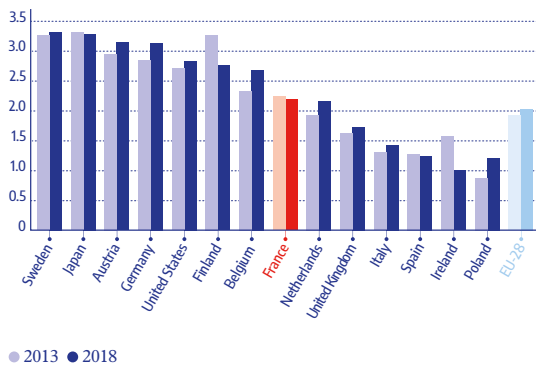


Source: OECD, 2019; Business France calculations

R&D intensity (GERD/GDP ratio) has decreased slightly in France since 2015, after several years of growth. In 2018, gross domestic expenditure on R&D accounted for 2.2% of GDP in France, slightly higher the EU-28 average (2.0%). France is ranked ahead of the United Kingdom (1.7%), Italy (1.4%) and Spain (1.2%), but after Germany (3.1%) and the United States (2.8%).

FIG. 46

INTENSITY OF R&D OPERATIONS (GERD/GDP) % OF GDP



● 2013 ● 2018

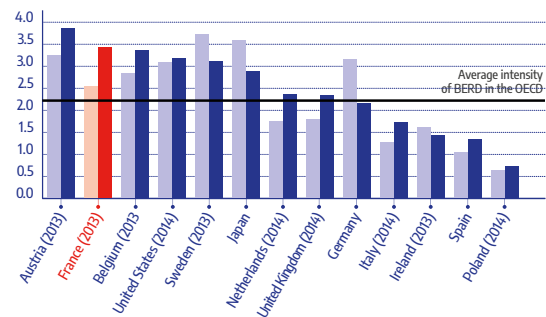
Source: OECD, 2019

The position of France in the intensity of R&D operations reflects above all the sector-based structure of the French economy, which is less geared towards medium-high technology than the leaders of the rankings, such as Germany and Japan. **However, if we neutralize the effect of industrial structure on the economy, France becomes the second leading country in the OECD for R&D intensity after Austria, which shows the extent of R&D efforts by French businesses.**

FIG. 47

INTENSITY OF BERD ADJUSTED FOR INDUSTRIAL STRUCTURE (2015)

% OF VALUE ADDED IN INDUSTRY



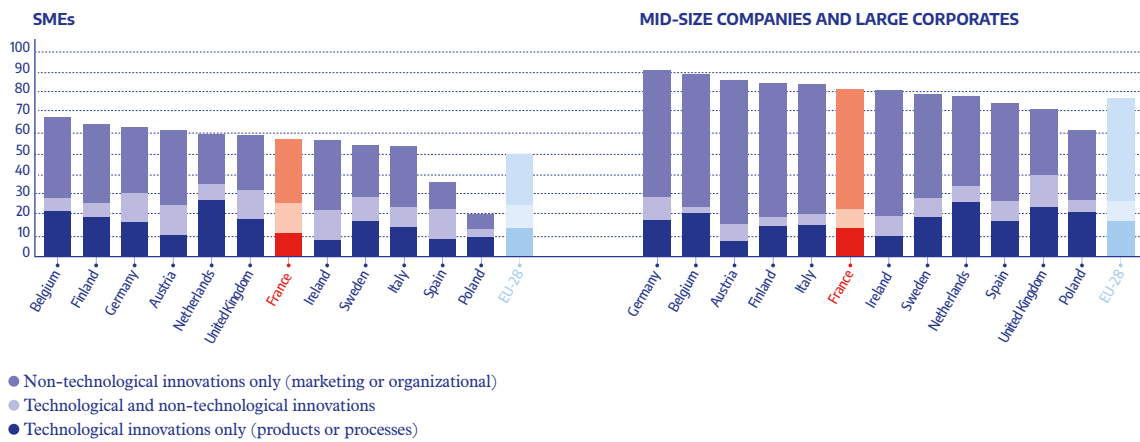
● BERD ● BERD adjusted for industrial structure

Source: OECD, Science, Technology and Industry Scoreboard 2017

SMEs (with between 10 and 249 employees) have a lower capacity for innovation than mid-size companies and large corporates (with more than 250 employees) in all the sample countries. France is ranked in the middle of the sample, with 56.4% of SMEs and 81.9% of mid-size companies and large corporates reporting innovations in 2016.

FIG. 48

INNOVATION STRATEGIES BY BUSINESS SIZE (2016)
ALL SECTORS - %



Source: Eurostat. Business France calculations

Government support for business enterprise R&D expenditure, both directly (in the form of subsidies) and indirectly (in the form of tax incentives), is 0.41% of GDP in France, the second-highest level of support in the OECD (cf. II. Education and human capital).

This figure appears all the more important when it is compared with the share of BERD in GDP, which is weaker in France than in leading countries

such as Germany. This French position reflects the orientation taken by successive governments in the last fifteen years to provide firm innovation support, using a large panel of tools, notably the research tax credit, but also “innovative new company” (*jeune entreprise innovante – JEI*) status, support from Bpifrance, and the measures of the French government’s Major Investment Plan, among others (see inset “Government measures to promote innovation in France”).

Government measures to promote innovation in France

France's research tax credit is a tax-incentive scheme to support research that is open to companies of any size and from any sector. The tax credit amounts to 30% of R&D expenses up to €100 million and 5% of expenditure above this threshold. **Eligibility for the research tax credit was extended in 2013 to encompass innovation spending by SMEs claimed back through the innovation tax credit** (20% rate up to €400,000): the expenses in question must go towards the design of prototype or pilot versions of new products.

The “innovative new company” (*jeune entreprise innovante – JEI*) status, introduced in 2004, offers a variety of tax and social security relief (such as partial exemption from corporate tax and capital gains tax, and complete exemption from certain employer social security contributions) to SMEs that are less than eight years old and devote at least 15% of their total spending to R&D. In parallel, the “new university company” status was brought in to encourage business creation by any individuals involved in research within higher education establishments.

The National Investment Program, the three first parts of which were introduced in 2010, 2014 and 2017, has been set up by the French government to support projects by proposing intervention aiming to fix market deficiencies (such as finance problems where the horizon is too far away or where there is high risk).¹

A fourth part of the National Investment Program, worth €20 billion over five years, will come into effect in 2021. It will combine two modes of intervention: strategic and priority investments in defined sectors (cybersecurity, artificial intelligence, bioproduction of innovation therapies, etc.) as well as structural funding for higher education, research and innovation.

Bpifrance is a public investment bank offering a wide variety of financial solutions in various forms (subsidies, reimbursable advances, guarantees, loans and equity capital) for SMEs and startups throughout the development path. It acts as an operator for most state aid for innovation and as a one-stop shop for businesses.

“La French Tech” is a major initiative intended to stimulate France's most

vibrant regional ecosystems and support the growth of their startups and digital companies. It is financed by the French government's “National Investment Program”.

- Accelerator programs: €200 million invested in private-sector initiatives to help digital companies grow faster and succeed internationally.

- International investment attractiveness: €15 million to support fab labs and attract foreign talent, entrepreneurs and investors.

The Major Investment Plan (*Grand plan d'investissement – GPI*), worth €57 billion, is being rolled out in 2017-2022 in response to four major challenges France must face: accelerating the ecological transition, building a skilled society, anchoring competitiveness with innovation, and building a digital state. It takes on the work of the third phase of the “National Investment Program” focusing on innovation, such as the innovation contest, support for collaborative research, and several funds operated by Bpifrance to strengthen the French venture capital market in certain segments (National Startup Fund, Multicap Growth Fund).

¹ For example, it includes the Worldwide Innovation Challenge, financed by funds from the second and third wave of the National Investment Program. These challenges offer public subsidies and reimbursable advances allowing innovative business within these areas to carry out projects of excellence.

With the creation of **innovation clusters** in 2005 and **several successive stages of the National Investment Program**, emphasis has been placed on technology and knowledge transfers between public-sector research and business.

The Fund for Industry and Innovation (FII) was given €10 billion in 2018 and will enjoy €250 million per year. The fund aims to promote breakthrough technologies – including artificial intelligence, nanoelectronics and energy storage, which are all examples of technology requiring not only substantial investments but also face high levels of competition and uncertainty – and includes a deep tech plan aimed at tech-savvy startups.

Patent indicators reveal a lot about a country's performance in technological innovation,

particularly the number of patent applications filed under the PCT (Patent Cooperation Treaty) international patent procedure.

In 2018, France filed 7,919 PCT applications, or 118 applications per million inhabitants, placing it fourth in our sample after the United States (56,188), Japan (49,705) and Germany (19,747), but ahead of the United Kingdom (5,636) and the Netherlands (4,133).

Trademark applications are used to measure marketing innovations. **In 2018, France registered 399,465 trademarks**, or 5,967 trademarks per million inhabitants, placing it in fifth place. The United States came top (1,024,384) and was followed by Germany (748,482), the United Kingdom (438,578) and Italy (429,847).

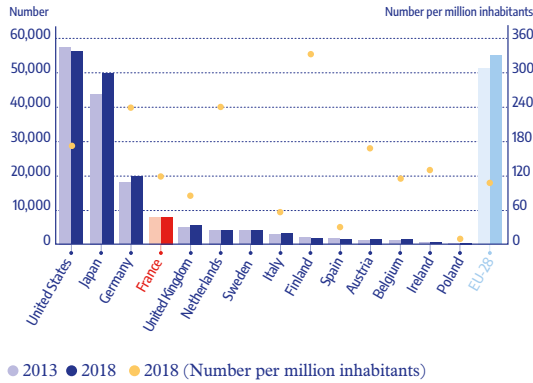
In France, trademarks are mainly registered in research and technology sectors (19.8%), leisure and education (15%) and business services (12.9%). Moreover, according to WIPO,² **French brand L'Oréal was the second leading company in the world for filing trademarks in 2018** (according to the Madrid system) after the pharmaceutical business Novartis.

Registrations of models and industrial designs are a third useful intellectual property indicator. **In 2018, 69,223 models and industrial designs were registered by French nationals**, or 1,034 per million inhabitants. France was ranked after the United States (132,117) and Germany (125,067), but was ahead of Italy (68,214) and the United Kingdom (55,706).

² Intellectual property: Facts and figures from WIPO Magazine 2019

FIG. 49

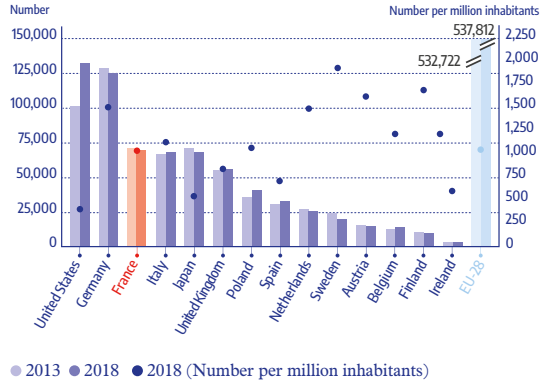
PATENT APPLICATIONS VIA THE PCT PROCEDURE
PRIORITY YEAR, INVENTOR'S COUNTRY OF RESIDENCE



Source: WIPO statistics database, 2019; OECD, 2019; Business France calculations

FIG. 51

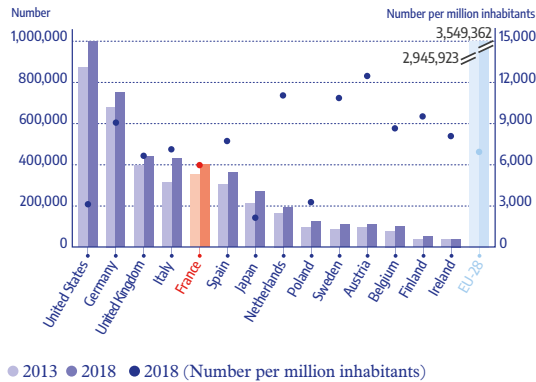
MODELS AND INDUSTRIAL DESIGNS BY SOURCE COUNTRY
TOTAL DIRECT APPLICATIONS + APPLICATIONS VIA THE HAGUE SYSTEM



Source: WIPO statistics database, 2019; OECD, 2019; Business France calculations

FIG. 50

TRADEMARK APPLICATIONS BY SOURCE COUNTRY
TOTAL DIRECT APPLICATIONS AND APPLICATIONS VIA THE MADRID SYSTEM



Source: WIPO statistics database, 2019; OECD, 2019; Business France calculations

METHODOLOGY

PATENTS, TRADEMARKS, MODELS AND INDUSTRIAL DESIGNS AS INDICATORS OF INNOVATION ACTIVITY

A patent is an intellectual property title which confers on its holder an exclusive right of use to the patented invention, for a limited period (normally 20 years) and in a specified territory. Patent applications may be for a single country or for a much wider area (European Union Member States, for example, in the case of an application to the European Patent Office). A patent may also be filed under the **Patent Cooperation Treaty (PCT) procedure**.

By filing one international patent application under the PCT, “applicants can simultaneously seek protection for an invention in a very large number of countries”. Since March 2017, 152 member states have ratified the treaty, placing the PCT at the heart of international cooperation on intellectual property. Another advantage of this procedure is that it improves international comparability.

According to the INPI (French Patent and Trademark Office): “As intellectual property is defined, **a trademark** is a ‘sign’ used to accurately distinguish the products or services of a company from its competitors’ products or services.

Filing a trademark gives the holder exclusive rights of use in the form of intellectual property protection. It is used as a sign that something is new (innovations in products, marketing and services) and imparts advantages on the innovations when new products are introduced on the market.

The Madrid System enables the owner to have their trademark protected in several countries at once by filing a single application directly with their own national or regional trademark office.

An industrial design or model conveys an object’s ornamental or aesthetic aspects. It adds to a product’s market value and enhances its commercial potential. In most countries, industrial designs or models must be registered so as to be protected by law. Depending on national legislation and the type of design or model, it may also be protected by copyright as a non-registered design or model, or as a work of art.

The Hague System for the international registration of industrial designs and models enables owners to protect their work in several countries at a time by filing a single international application.

2.4 INFRASTRUCTURES

Network infrastructures are essential to economic activity. The most strategic sectors relating to the network economy are transport, telecommunications and energy (cf. 2.9 – Energy and green growth). The quality of these infrastructures is a key factor for business competitiveness and the attractiveness of a country.

As an investment location, France boasts high-quality transport infrastructure, providing fast, cost-effective connections with the rest of the world, especially Europe, Africa and the Middle East. This component in its investment attractiveness is a key advantage for the geographical distribution of manufacturing activities, as well as for the movement of goods and people.

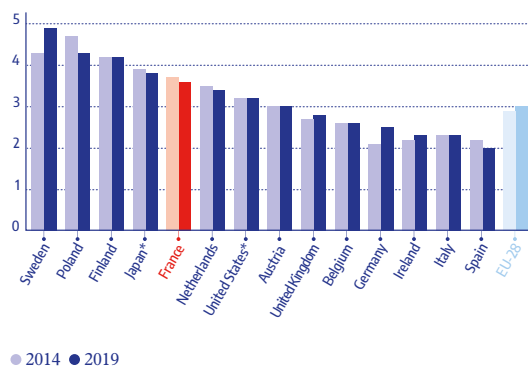
Businesses operating in France also gain from first-class communication infrastructure and an extensive broadband network. France has the highest fixed broadband internet penetration rate among the countries in the sample.

Transport infrastructure

French public bodies invest heavily to develop and maintain high-level infrastructure. France has high levels of state investment (3.6% of GDP in 2019), higher than in the United States (3.2% in 2018), the United Kingdom (2.8% in 2019) and Germany (2.5% in 2019).

FIG. 52

GROSS FIXED CAPITAL FORMATION IN PUBLIC SERVICES
% OF GDP

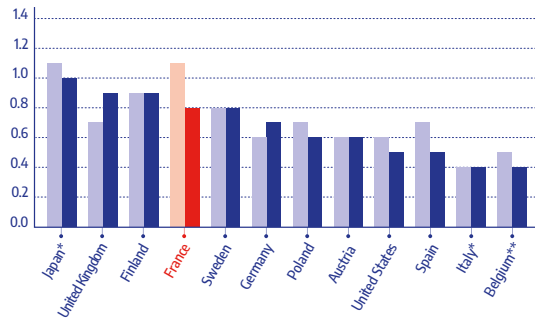


* Data for 2018
Source: OECD, 2020; Business France calculations

Investments in transport infrastructure in 2018 were equivalent to 0.8% of France's GDP and have been in decline in recent years. This level is higher than in the United States (0.5%) and Germany (0.7%).

FIG. 53

INVESTMENT IN INLAND TRANSPORT INFRASTRUCTURE
GROSS INVESTMENT AS A % OF GDP



● 2013 ● 2018

* Latest year available: 2016

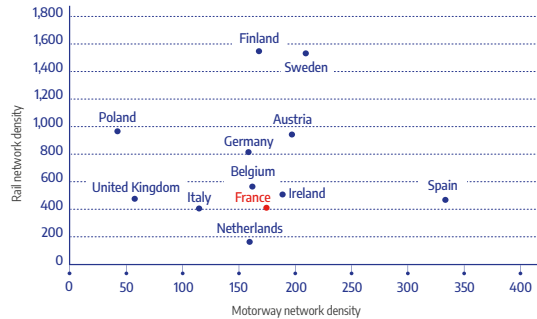
** Data for 2017

Source: OECD, 2019

France has an extremely dense domestic transport network, with more than 11,000 km (7,000 miles) of motorways, as well as a rail network of nearly 30,000 km (18,000 miles) and 5,000 km (2,700 nautical miles/3,100 miles) of navigable waterways.

FIG. 54

LAND TRANSPORT INFRASTRUCTURE DENSITY (2018*)
KM PER MILLION INHABITANTS



* 2018 or the most recent year

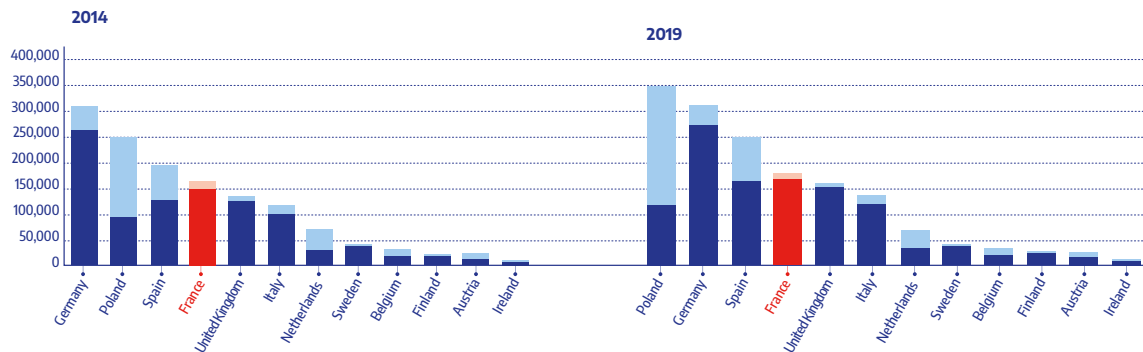
Source: Eurostat, 2019; Business France calculations

Transport infrastructure capacity is calculated using the volumes transported by each means of transport (road, rail, sea, air). France is still very active in this area.

The volume of road freight is considerable. With 179,604 million tonne-km in 2019, France was ranked fourth among the European countries in the sample, after Poland, Germany and Spain.

FIG. 55

ROAD FREIGHT TRANSPORT
TOTAL LOAD, MILLION TONNE-KM



● International ● National

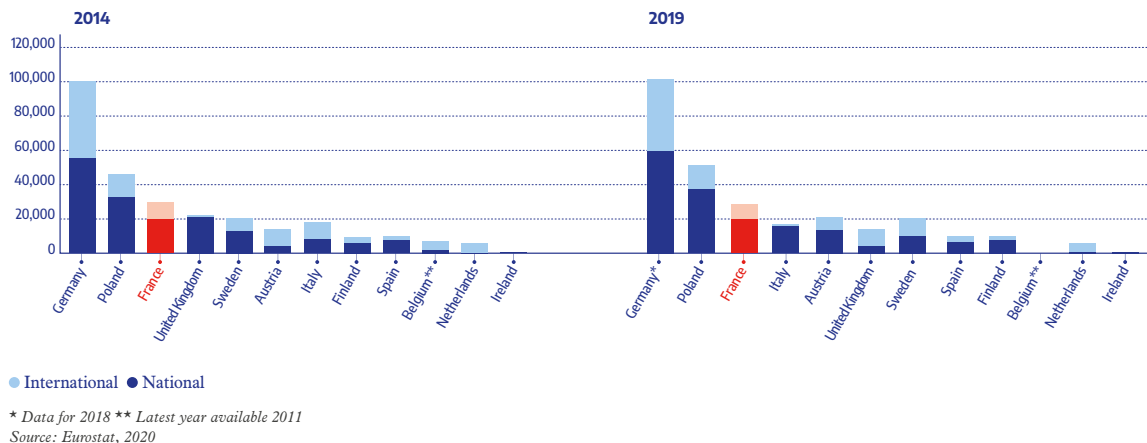
Source: Eurostat, 2020

Rail freight is also extensive in France. With nearly 33,000 million tonne-km transported in 2019, France

was ranked third among the European countries in the sample, after Germany and Poland.

FIG. 56

RAIL FREIGHT TRANSPORT
TOTAL LOAD, MILLION TONNE-KM



Rail reform in France

The Rail Reform Act of June 28, 2018 set out a **new rail pact** in France, consisting of the modernization of the current system and the opening up of the network to competition.

France's national state-owned railway company SNCF was completely reorganized on January 1, 2020, with the aim of making it more consistent and efficient. The three current state-controlled entities (EPICs) are now placed into a single unified group, in the form of a state-owned

corporation, whose capital will remain wholly owned by the state. The management of railway stations is also being handled by a single entity.

The timetable for the opening of the network up to competition has been confirmed: From December 2020 for the TGV high-speed services; from December 2019 for TER regional trains (the pace to be decided by each region, which can continue to award contracts to SNCF until December 2023, valid for up to 10 years); and

between 2023 and 2039 for the Transiliens and Île de France RER lines.

The opening up of the network to competition comes with assurances: employees, in the event of their jobs being transferred elsewhere, will keep their pay and benefits; services will continue to operate; and discounted fares (people from large families, disabled, etc.) will be maintained.

Setting up a support strategy for the rail sector as part of the “Relaunch France” plan

Rail travel is an efficient alternative to road transport, both for passengers and for goods, as it contributes to reducing the transport sector’s carbon and environmental footprint. It is therefore important to improve the rail sector and its attractiveness. France is resolutely committed to the fight against climate change and aims to be carbon neutral by 2050. The transport sector, which is one of the main emitters of CO₂, will have to make a significant contribution towards meeting this objective.

The main aim is to improve the overall quality of the rail network in order to increase the supply of trains in their various uses. Firstly, in line with the priorities set out in the Transport Outline Act, it is a question of giving

the SNCF rail company the means to regenerate and modernize what is the most widely used national transport network. The aim is to improve regularity (i.e. limit the number of incidents and subsequent delays) and safety (especially at level crossings) by taking into account various developments in technology (including the use of digital technology). An important part of this aim is to ensure continued protection of the environment.

It is also a question of reinvesting, together with the different regions, in the feeder railway lines across France to increase rail travel in less densely populated regions and better link them to urban areas, especially when no other suitable mode of transport

exists. The real issues here are the opening-up of regions and finding regional balance. Furthermore, the aim is also to speed up work on station facilities, particularly access for people with reduced mobility, and to reintroduce night trains across the network.

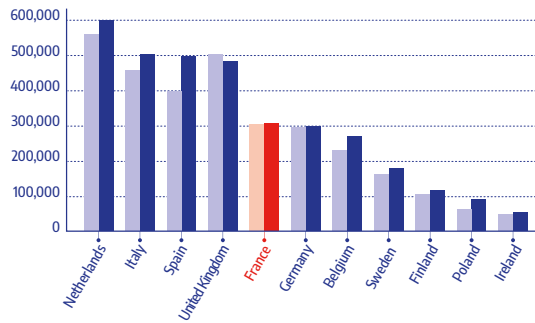
Lastly, the rail network must evolve to better support the transport of freight, in order to serve businesses, logistics hubs and ports as closely as possible under the right economic conditions.

The State’s additional investment effort as part of the “Relaunch France” plan amounts to €4.7 billion, with all work beginning between 2020 and 2022.

France also boasts a number of advantages in maritime transport. With 66 commercial maritime ports, and more than 500 decentralized ports, it is flanked by Europe's three large coastlines (the Atlantic, the Mediterranean, and the English Channel/North Sea) and enjoys access to three oceans (the Atlantic, the Indian, and the Pacific). In 2018, freight handled by French mainland ports totaled more than 300 million tonnes, ranking France fifth among the European countries in the sample.

FIG. 57

MARITIME FREIGHT TRANSPORT GROSS WEIGHT, THOUSAND TONNES



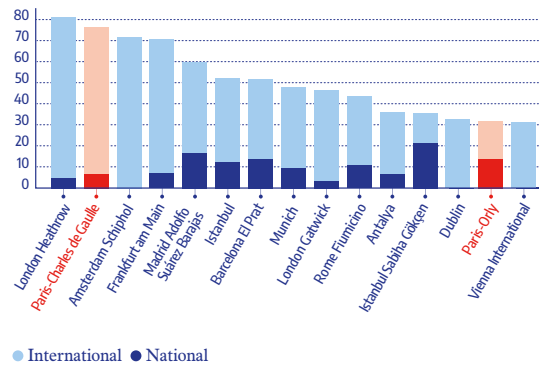
● 2013 ● 2018

Source: Eurostat, 2019

These land and maritime transport networks are supplemented by excellent airport infrastructure. France has 59 airports that each record more than 100,000 passenger movements per year. In 2018, two of Paris' airports were ranked in the top 15 airports in the EU-28: **Paris-Charles de Gaulle was ranked second by passengers carried** after London Heathrow, while **Paris Orly** was ranked 14th.

FIG. 58

15 LEADING AIRPORTS IN THE EU-28 (2019) MILLION PASSENGERS CARRIED



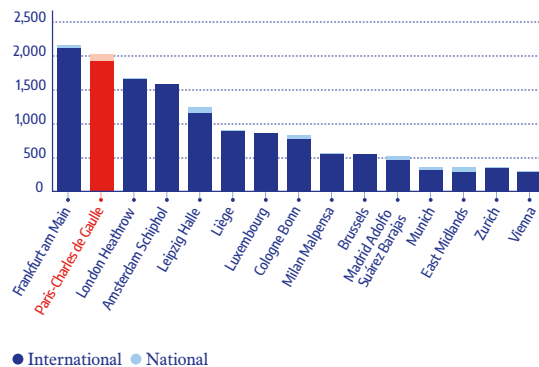
● International ● National

Source: Eurostat, 2020

Concerning cargo transport, **Paris-Charles de Gaulle was ranked second among EU-28 airports in 2019, after Frankfurt airport but ahead of London Heathrow.**

FIG. 59

15 LEADING AIRPORTS IN THE EU-28 (2019) THOUSAND TONNES OF CARGO AND MAIL



● International ● National

Source: Eurostat

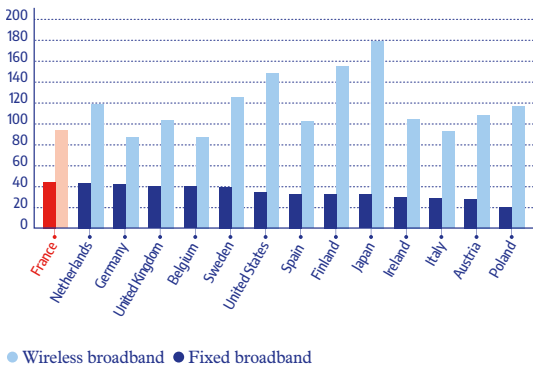
Telecommunications infrastructure

The broadband penetration rate is a good indicator of a country’s connectivity. France had the highest fixed broadband penetration rate among the countries in the sample, with 44.1 subscribers per 100 inhabitants. This rate is higher than in Germany (42.2), the United Kingdom (40), and the United States (34.7).

The disparities were more pronounced for wireless broadband connections, with 93.7 subscribers per 100 inhabitants in France.

FIG. 60

BROADBAND PENETRATION RATE
(DECEMBER 2019)
SUBSCRIBERS PER 100 INHABITANTS



● Wireless broadband ● Fixed broadband

Source: OECD, Broadband Statistics, 2020

High-Speed Broadband France Plan

The High-Speed Broadband France Plan (*France Très Haut Débit*) is a national investment strategy to bring high-speed broadband (greater than 30 Mbits/s) to the entire country by 2022.

Launched in spring 2013, the decade-long program will receive investment of €20 billion, with the burden being shared between private operators, local authorities and central government. The intermediate target of reaching 50% of the population by 2017 was met by the end of 2016 (51.2%).

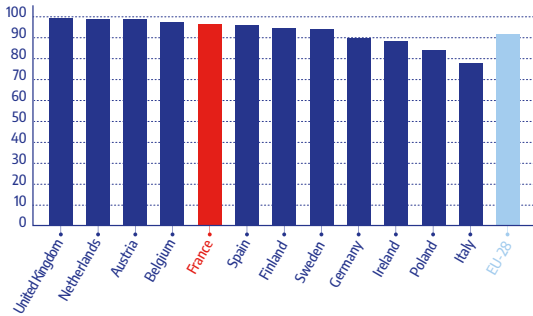
France has just set itself the goal of rolling out ultra-fast fiber optic broadband across the country by 2025.

Source: www.gouvernement.fr/action/le-plan-france-tres-haut-debit

In 2019, fixed broadband subscriptions greater than or equal to 10 Mbps amounted to 97% of all subscriptions in France, higher than the EU-28 average (92%) and Germany (90%).

FIG. 61

SHARE OF FIXED BROADBAND SUBSCRIPTIONS ≥ 10 MBPS (JUNE 2019)
%

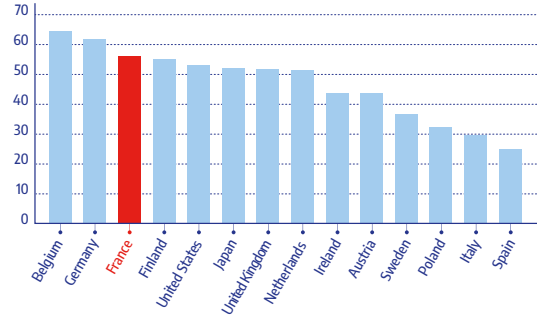


Source: European Commission Digital Scoreboard, 2020

France is making good progress rolling out IPv6 technology. According to Cisco, its IPv6 deployment ratio was 56% in September 2019, which places France third among the sample countries.

FIG. 62

IPv6 DEPLOYMENT* (SEPTEMBER 2020)
%



* Ratio calculated by Cisco to measure the deployment of IPv6 technology taking into account the percentage of IPv6 prefixes, traffic, content and internet users.
Source: Cisco, 2020

METHODOLOGY

IPv6

IPv6 is the latest identification protocol for internet-connected devices, and is set to replace the previous system, IPv4. The latter remains in widespread use and has enabled some four billion addresses to be used. During the current transition period, due to last several years, the two identification systems will operate in tandem. Running IPv6-enabled infrastructure readies countries ahead of the upcoming exhaustion of IPv4 addresses.

For end users to be able to use IPv6, the websites they visit, their server and their internet service provider need to undergo a number of modifications. Cisco has devised a ratio to monitor the deployment of the protocol, which ranges from 0 (IPv6 not deployed) to 100. This ratio is a function of traffic, content and end users, and is calculated using the following formula:

$$\text{Deployment Ratio} = \frac{\% \text{ Transit AS} + 3 \times \sqrt{\% \text{ content} \times \% \text{ user}}}{4}$$

Business offices

The French business real-estate market is one of the most dynamic in Europe: Paris (center) was ahead of all major European cities in terms of transaction numbers in 2019, while four other French cities are in the league table (Lyon, Lille, Toulouse and Marseille).

FIG. 63

INDICATORS FOR LEADING EUROPEAN OFFICE PROPERTY MARKETS

	Transactions (sq. m.)		Vacancy rate (%)	
	2019	2018	Q4 2019	Q4 2018
Paris (center)	2,064,363	2,206,488	4.9 %	5.5 %
London (center)	1,147,084	1,400,461	5.7 %	5.0 %
Berlin	1,016,000	831,000	1.5 %	1.7 %
Munich	770,000	975,000	2.4 %	2.3 %
Birmingham	724,700	701,155	12.8 %	12.4 %
Frankfurt	635,000	678,000	6.8 %	7.4 %
Madrid	617,133	533,595	8.4 %	9.6 %
Warsaw	583,000	657,000	7.8 %	8.6 %
Brussels	514,680	361,423	7.1 %	7.9 %
Hamburg	512,000	563,000	4.1 %	4.5 %
Milan	488,087	389,530	9.8 %	10.6 %
Lyon	441,838	331,910	4.7 %	5.5 %
Barcelona	400,169	354,569	6.7 %	8.8 %
Budapest	361,980	385,787	5.6 %	7.3 %
Bucharest	329,519	292,019	10.5 %	8.3 %
Dublin	309,847	359,480	5.1 %	6.4 %
Prague	284,063	340,504	5.5 %	5.1 %
Amsterdam	282,387	377,798	6.2 %	7.2 %
Rome	272,619	172,529	8.0 %	8.7 %
Lille	264,106	277,691	4.7 %	4.7 %
Luxembourg	260,606	247,882	3.6 %	3.7 %
Vienna	220,000	270,000	4.7 %	5.3 %
Lisbon	188,527	206,428	4.8 %	5.8 %
Stockholm	165,900	180,750	5.5 %	5.5 %
Marseille	138,586	124,634	6.5 %	6.1 %

Source: BNP Paribas Real Estate, European Office Market 2020

Transactions = surface areas for which a lease or a contract of sale has been signed.

2.5

ADMINISTRATIVE AND REGULATORY ENVIRONMENT

France's administrative and regulatory environment has become much more modern in recent years, following major reforms that are still ongoing. Thanks to its modern and efficient e-government services, the French government can now support private key players and individuals' projects more easily.

According to the World Bank's Doing Business report, France holds a middle-ranking position among the major economies for business environments. France has seen very good scores in a number of important categories, including enforcing contracts, starting a business, trading across borders, and obtaining a construction permit.

Buoyant levels of enterprise creation reflect this environment, whether in the economy as a whole, or in manufacturing industry. France is the leading European economy for net enterprise creation.

The World Bank evaluates the ease of doing business in 190 economies every year in analysis that appears in the Doing Business report. In the 2020 edition, France is ranked 32nd in the world (ninth among our sample countries).¹

The ranking is based on analysis of regulations in 10 categories: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency.

The report mainly examines costs and transaction times. It does not provide an accurate picture of a country's attractiveness, insofar as it fails to consider all the benefits received, for example through the provision of high-quality public services.

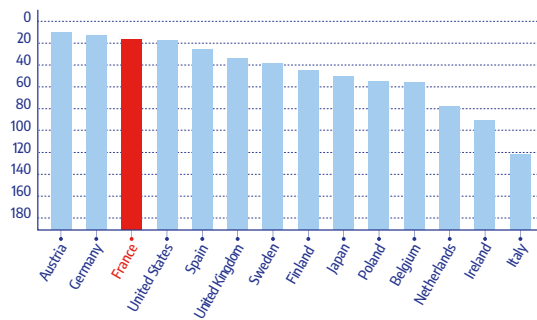
France's best performances are in **trading across borders**, **enforcing contracts** (index based on the number of procedures, time they take in days, and the cost as a percentage of the claim), **starting a business** (index based on the number of procedures, time they take in days, their cost, and the minimum paid-in capital requirement as a percentage of per capita income), and **getting electricity** (index based on the number of procedures, time they take in days, and their cost).

France also achieves good results in terms of protecting minority investors.

¹ Please note that the Doing Business 2021 is currently suspended.

FIG. 64

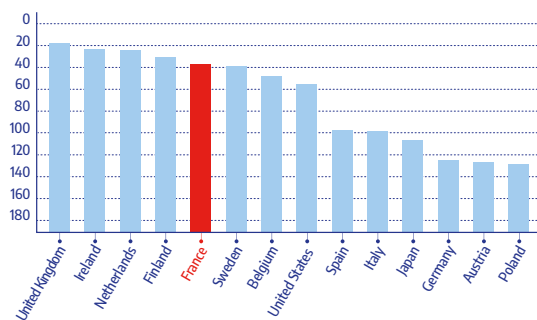
EASE OF ENFORCING CONTRACTS (2020)
GLOBAL RANKINGS



Source: World Bank, Doing Business 20

FIG. 65

EASE OF STARTING A BUSINESS (2020)
GLOBAL RANKINGS



Source: World Bank, Doing Business 2020

The modernity and effectiveness of public administration plays an essential role in France’s attractiveness and the economic development of each region. As such, the development of e-government (electronic or digital government) is another strength.

The French government has carried out a number of reforms in recent years and has been engaged in a wide-ranging administrative simplification program since 2012, whose recommendations have become law through the Corporate Simplification Act (December 2014), the Growth, Economic Activity and Equal Economic Opportunity Act (August 2015), and the introduction in 2016 of a single social security contributions statement.

Since the start of the President’s five-year term, several laws have made it possible to continue and expand this movement, such as the reform of the public sector in 2019. Furthermore, structural, organizational and human resources management reforms have been announced by the Interministerial Committee for Public Transformation (CITP).

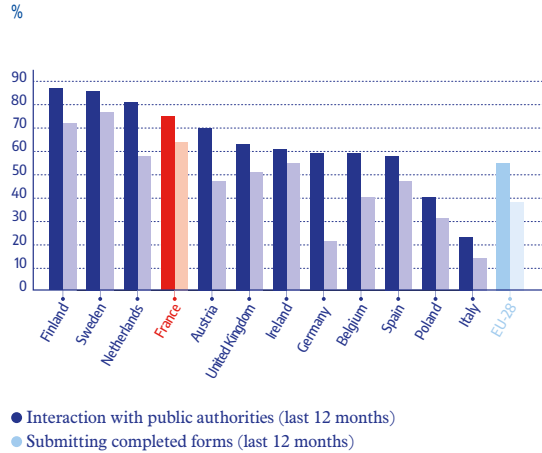
Meanwhile, the Bill to Accelerate and Simplify Public Action (ASAP), which passed its final reading on October 28, 2020, aims to strengthen this movement with new measures that facilitate economic activity and simplify people’s lives.

Finally, as part of the “Relaunch France” plan, up to €1.5 billion will be allocated to accelerating the digital transformation of administrations and local authorities.

The rate of online interactions between individuals and public authorities reveals the degree to which public services have been digitized. **In 2019, 75% of individuals in France used the internet to interact with public authorities** (versus only 48% in 2008). France was ranked ahead of the United Kingdom (63%) and Germany (59%), and was ahead of the EU-28 average (55%). Moreover, 64% of French citizens submitted completed forms to public authorities in 2019, ahead of the United Kingdom (51%), Germany (21%) and the EU-28 average (38%).

FIG. 66

INDIVIDUALS USING THE INTERNET TO INTERACT WITH PUBLIC AUTHORITIES (2019)



Source: Eurostat, 2020

Act of September 15, 2017, enabling the government to issue decrees to introduce measures enhancing social dialogue

The reform is based on three elements: safeguarding collective bargaining; simplifying and consolidating economic and social dialogue by empowering its stakeholders; and making working relations between employees and employers more secure.

The decrees place an emphasis on collective bargaining, facilitating its development in micro-enterprises and SMEs through specific measures (possibility of negotiating directly with an elected employee representative in companies with fewer than 50 personnel, or directly

with employees in companies with fewer than 20 personnel; access to clear, digitized employment laws; a standardized form for dismissals; specific provisions for micro-enterprises and SMEs included in industry-wide agreements).

Social dialogue has been simplified and rendered more operational by merging representative bodies into a single structure, the Social and Economic Committee (*Comité social et économique* – CSE), for all companies with at least 11 employees. The agenda for collective bargaining (frequency, content, and level of consultations) can also be defined by the companies for up to three years.

To enhance their participation in the trade union, those involved in social dialogue now have further access to vocational training and skills assessments to enable them to progress in their careers while being actively involved in the trade union.

In order to quickly adapt to changing market conditions, **companies can now seek a majority agreement to make any necessary adjustments to working time, pay, and mobility to ensure their operational effectiveness and competitiveness.** If an employee refuses to comply with these adjustments, the employer

can now resort to dismissal. This will not constitute dismissal on economic grounds, but will be a termination for cause. The employee will then receive a contribution of 100 hours to their personal training account from the employer.

To reflect more accurately the specificities of different industry sectors, **their branches have been assigned new powers.** The branches can now define the hiring and working conditions of employees as well as the guarantees that apply to them, in particular with regard to gender equality in the workplace. They can also specify the regulations governing fixed-term contracts, temporary contracts, and project-based contracts.

Employment tribunal damages for unfair dismissal are now capped to provide greater security and visibility concerning the costs of potential litigation, while the period allowed for appeals has been reduced to one year. Moreover, **statutory compensation for**

dismissal has been increased by 25%.²

Several measures also aim to make it easier to restructure companies and enhance France's attractiveness to foreign investors. **Recognized economic grounds for collective dismissals will now be defined at national level.** The presentation of redeployment offers has been simplified, thereby making redeployment procedures fairer and more transparent.

Finally, **collective contract termination agreements have been introduced,** allowing a common framework for voluntary redundancies to be defined through a collective company-wide agreement, thus avoiding the need to resort to job preservation plans and dismissals.

In order to take into account new working methods arising from new digital technologies, **it will now be possible to telework in a secure and flexible manner, promoting a better work-life balance.**

² Decree of September 25, 2017 on the re-evaluation of statutory severance pay.

Enterprise creation is buoyant in France, thanks to its more modern administrative and regulatory environment.

In 2018, the enterprise startup rate³ across the whole French economy was 10.9%, with the rate having remained above 9% since 2008. In manufacturing, this rate was 8%, with the rate having remained above 7% since 2009.

The United Kingdom came top of our sample in terms of enterprise creation rates (13.5% in the economy as a whole and 9.9% in the manufacturing industry). Germany performed less well in this area (6.8% and 3.4%, respectively).

The government's strategy to strengthen the competitiveness of the economy has involved improving, securing and simplifying the business environment. The Action Plan for Business Growth and Transformation, known as the PACTE Act, includes a section aimed at facilitating the creation and growth of businesses by setting up an electronic one-stop-shop system to deal with the formalities relating to the creation, modification and permanent closure of a business, as well as the simplification of thresholds for SMEs and methods of conducting staff head counts.

Bankruptcy law has also been enhanced by the integration of cross-class enforcement, which helps limit value destruction in restructuring. The Act enabling the State to help a trusted company (Essoc) has simplified the regulatory environment for businesses, while the introduction of a double compensation rule and the fight against the over-transposition of European directives help to tackle normative inflation. The implementation of the “tell us just once” initiative also contributes to reducing the administrative burden on businesses.

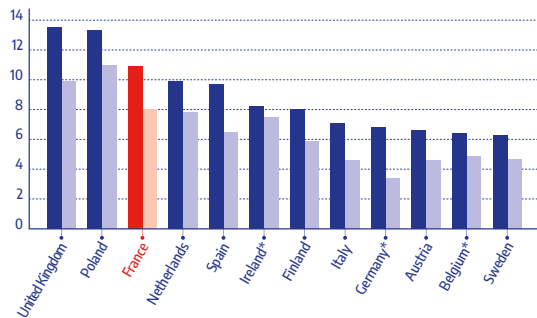
The total number of active enterprises in France grew strongly by 6.2% in 2018, with a net increase of 231,513 across the entire economy. The average 2018 growth figure for the EU-28 as a whole only rose by 2%.

In the manufacturing sector, the total number of active enterprises grew by 4.1% in 2018, equivalent to 10,752 net enterprise creations. This growth rate was significantly higher than that of the EU-28 (1.1%).

³ This is the number of business creations during the reference period (t) divided by the number of businesses in t.

FIG. 67

ENTERPRISE START-UP RATE (2018)
%

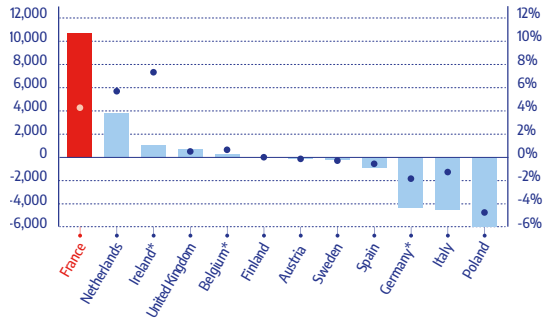


● Manufacturing industry ● Total economy

* Data for 2017
Source: Eurostat, 2019

FIG. 69

NET GROWTH IN ACTIVE ENTERPRISES (2018)
MANUFACTURING SECTOR

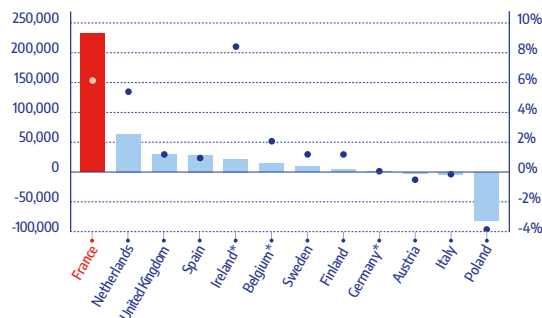


● Net enterprise creation (2018) ● Growth 2018 (%) (right axis)

* Growth and net creation for 2017
Source: Eurostat, 2019

FIG. 68

NET GROWTH IN ACTIVE ENTERPRISES (2018)
TOTAL ECONOMY



● Net enterprise creation (2018) ● Growth 2018 (%) (right axis)

* Growth and net creation for 2017
Source: Eurostat, 2019

The Act Enabling the State to Serve a Society of Trust

The Act Enabling the State to Serve a Society of Trust, passed on August 10, 2018, seeks to simplify relations between the administration and its users, boosting the latter's confidence.

This text is structured around two main principles; firstly, it creates a right to error for bona fide users in all of their dealings with the French

administration. Thus, in the event of a first breach of an obligation, the burden of proof is reversed: the onus is on the administration to demonstrate that the user acted in bad faith, and no longer up to the user to demonstrate their honest intentions.

The law also contains a series of measures intended to simplify

administrative procedures and also allows for experiments. For example, mediation was piloted at the URSSAF social security collection office in the Ile de France/Paris region, and following its success, has now been rolled out nationwide, thereby enabling its two million employers to quickly settle their difficulties amicably and avoid resorting to litigation.

Source: www.modernisation.gouv.fr/home/loi-essoc-faire-le-pari-dune-relation-apaisee-entre-les-usagers-et-leurs-administrations

Action Plan for Business Growth and Transformation (PACTE)

The Action Plan for Business Growth and Transformation (PACTE) was definitively adopted by parliament on April 11, 2019 and the law was promulgated on May 22, 2019. The PACTE is an act that aims to modernize companies' day-to-day operations, how they are funded and their role in society.

The ambition of this law for the government is to alleviate obstacles to growth of businesses at every stage of their development, from creation to transmission, passing by their financing. Businesses also need to be placed in the center of society, and a modification of the Civil Code will look to do just that. Employees will be

better associated with results.

The main aims of this law are as follows:

- **To simplify the thresholds applicable to SMEs.**
- **To facilitate value-sharing incentive agreements** for businesses with fewer than 250 employees by eliminating the corporate contribution on voluntary and mandatory profit-sharing.
- **To rethink businesses' place in society.**
- **To set up a company 100% online** at less cost.
- **To facilitate judicial liquidation,** in terms of deadlines for and costs.

- **To bring public research closer to the business world** by renewing links between the public and private sectors.

- **To facilitate business transfers.**

- **To simplify and ensure the portability of pension savings products** throughout citizens' professional lives.

- **To support SMEs' export initiatives** through the creation of single regional windows.

- **To protect strategic national companies.**

Source: www.economie.gouv.fr/plan-entreprises-pacte

Act to Transform Public Service

The Act to Transform Public Service of August 6, 2019 aims to “build a 21st century public service, making it more agile, open and attractive, with more efficient public services operating closer to each region.”

The main objectives of this text are:

- To promote more strategic social dialogue in respect of guarantees of public agents.

- To develop managerial levers to make public action more reactive and more efficient.

- To simplify and guarantee transparency and equity in the management framework of public agents.

- To promote mobility and support professional transitions for public agents in public service and the private sector.

- To step up professional equality in public service.

The flagship measures adopted included merging the social dialogue bodies, creating a “project” fixed-term contract, recruiting by contract for permanent jobs (categories A, B and C) of the *Fonction Publique d’État* (FPE), and harmonizing working time to 35 hours per week.

Source: www.fonction-publique.gouv.fr/loi-de-transformation-de-la-fonction-publique

The Bill to Accelerate and Simplify Public Action (ASAP)

The Bill to Accelerate and Simplify Public Action, which was taken into final reading on October 28, 2020, reflects the government’s ambitions to transform public action. It indicates concrete steps for several commitments made following the great national debate: it will bring

the French administration and citizens closer together, facilitate the development of businesses and simplify the administrative procedures for individuals. It aims to do the following:

- **Abolish or regroup advisory administrative commissions.**

- **Decentralize individual administrative decisions** in the fields of culture, economy and healthcare.

- **Simplify certain procedures applicable to industrial facilities** in order to boost operations and employment across France’s regions.

Source: www.vie-publique.fr/loi/273138-projet-de-loi-acceleration-et-simplification-de-laction-publique-asap

2.6

FINANCIAL ENVIRONMENT

France has efficient market and post-market infrastructures, with Euronext, the clearing house LCH SA and the French depository bank Euroclear France, which belongs to the Euroclear group, a leader in the European market.

Paris' success as a financial center, along with French financial expertise and the large number of corporate issuers to businesses, constitute a major component of France's investment attractiveness within the financial services sector.

The Paris market is largely characterized by strong financial intermediation: banks, insurance and asset managers. In addition, France has internationally recognized private equity players, and its venture capital industry, which plays a fundamental part in creating new businesses in innovative technology sectors, is particularly strong.

The Paris marketplace has confirmed its attractiveness for financial services on the Brexit front. From the arrival of the European Banking Authority in the city's La Défense business district, to the relocation of operations and highly qualified staff from some of the largest global banks (HSBC, JP Morgan, Goldman Sachs, Morgan Stanley, Bank of America, etc.), as well as asset management companies such as BlackRock.

According to data from the Banque de France, business access to credit was at a very high level in the third quarter of 2020. This reflects the success of public support mechanisms (in particular the implementation of loans guaranteed by the State) to deal with the Covid-19 crisis.

QUARTERLY CORPORATE BANK LENDING TO BUSINESSES SURVEY

Third quarter 2020, Banque de France

The Banque de France surveys companies every three months about their access to bank finance; approximately 4,000 SMEs and 500 mid-size companies took part in the latest survey, as did 2,500 micro-enterprises, through a partnership with the French Accredited Business Management Center Federation (*Fédération des centres de gestion agréés – FCGA*).

Access to cash loans by micro-enterprises amounted to 88% in Q3, 2020 (share of businesses having obtained all or most of the desired loans), a marked increase compared with the level seen before the crisis (67% in Q3, 2019).

Furthermore, the rate of access to cash loans for SMEs stood at 90%,

close to the highest level reached since 2012 (94% in Q2, 2020), and an increase on last year's figures (87% in Q3, 2019).

The rates of access to investment loans are at levels similar to those seen last year (96% of SMEs, i.e. a stable level over one year, and 86% of micro-enterprises, compared with 88% in Q3, 2019).

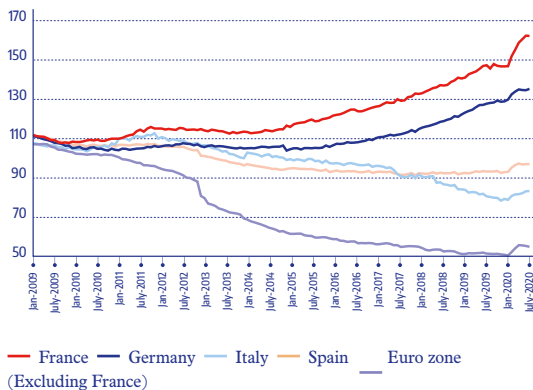
Finally, the take-up rate of mid-size companies requesting new cash loans reached 92%, compared with 95% a year ago. However, only bank loans are considered here; mid-size companies also have access to the private securities market, which offers them additional sources of financing not featured in this survey.

Long-term data from the Banque de France confirm the good availability of bank credit for businesses in France: loans held up well during the sovereign debt crisis in the euro zone and have been rising sharply since 2014. Conversely, the other main economies in the euro zone, apart from Germany, whose credit growth remains weaker than in France, experienced stagnation, or even a decline, in corporate lending.

Moreover, corporate financing benefits from very favorable conditions on the bond market, thanks to the persistence of a low interest rate environment.

FIG. 70

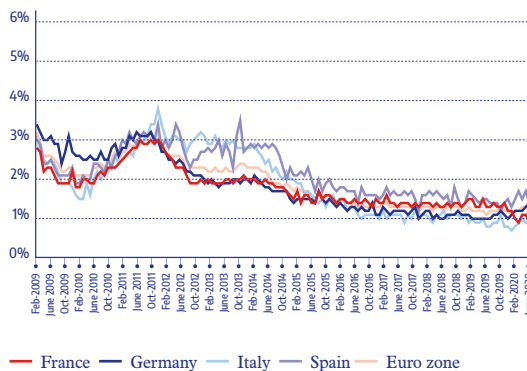
CHANGE IN LENDING TO NON-FINANCIAL COMPANIES IN THE EURO ZONE (2009-2020)
INDEX = 100 IN DECEMBER 2007



Source: Banque de France, 2020; Business France calculations

FIG. 71

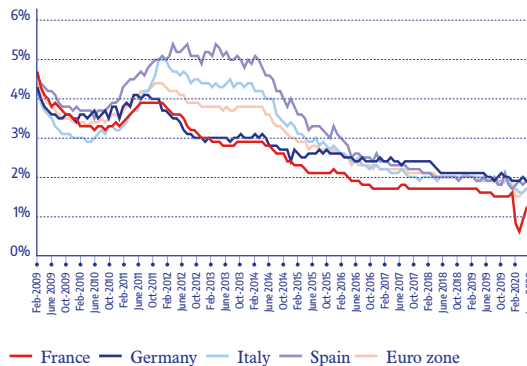
INTEREST RATES FOR LOANS TO NON-FINANCIAL COMPANIES (2009-2020)
LOANS OVER €1 MILLION



Source: European Central Bank, 2020

FIG. 72

INTEREST RATES FOR LOANS TO NON-FINANCIAL COMPANIES (2009-2020)
LOANS UP TO AND INCLUDING €1 MILLION

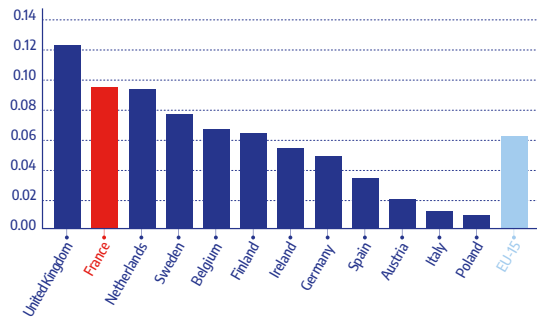


Source: European Central Bank, 2020

Venture capital is a key strength for France, ranked second among the countries in our sample: venture capital investment amounted to 0.10% of GDP in 2019, a little less than in the United Kingdom (0.12%), but more than in the rest of the sample, including Germany (0.05%).

FIG. 73

VENTURE CAPITAL INVESTMENT (2019)
% OF GDP

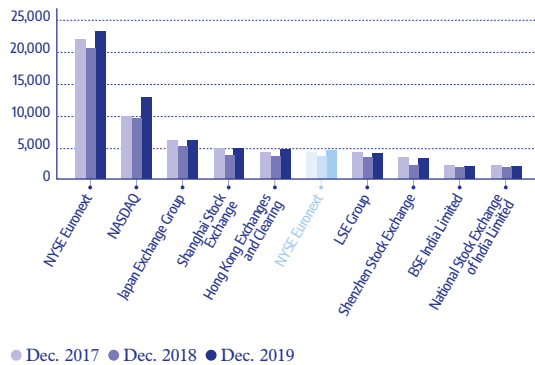


Source: European Private Equity Activity, 2019, Invest Europe (ex-European Venture Capital Association EVCA); Data based on Industry Statistics

Concerning financial markets, Euronext, bringing together the marketplaces in Paris, Amsterdam, Brussels, Lisbon and Milan in due course, following the merger with Borsa Italiana, is the sixth largest operator in the world by market capitalization. At the end of 2019, Euronext’s capitalization increased by 26% compared with the end of 2018.

FIG. 74

MARKET CAPITALIZATION OF THE 10 LEADING STOCK EXCHANGES
US\$ BILLION



Source: World Federation of Exchanges (WFE), 2020

Asset management plays a major role in financing the economy, benefiting both growth and innovation. An economy with a developed asset management sector will ensure the strength and diversity of funding sources for its economy and its key players.

France is one of the leading countries in Europe for asset management. According to Willis Towers Watson, France concentrates 7.3% of the total of assets managed by the 500 largest investment funds in the world, and is ranked third in the world, after the United States (51.7%) and the United Kingdom (7.6%).

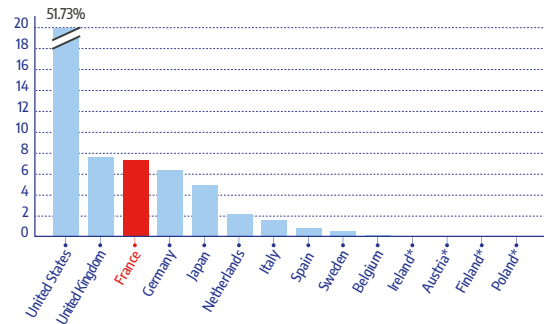
Moreover, France was ranked fourth in Europe in 2019 for net assets managed by investment funds domiciled in Europe (after Luxembourg, Ireland and Germany), with a market share of 11% (ranked third among countries in the sample).

In 2018, France had four asset managers in the global top 25 (AXA Group, Amundi, BNP Paribas and Natixis Global-Ostrum AM), including two in the top 10. In addition to these are the dozens of “specialty shops”, whose investment thesis centers on innovative topics, such as socially responsible investment.

Furthermore, the French model of universal banking, bringing together a wide range of jobs within the same institution, has proven its worth. France is home to four of the 10 largest players in Europe¹ (BNP Paribas, Crédit Agricole, Société Générale and BPCE), including two in the top three.

FIG. 75

SHARE OF ASSETS UNDER MANAGEMENT (2019)
COUNTRY OF DOMICILIATION OF INVESTMENT FUNDS
% OF TOTAL ASSETS UNDER MANAGEMENT BY THE 500 LARGEST INVESTMENT FUNDS

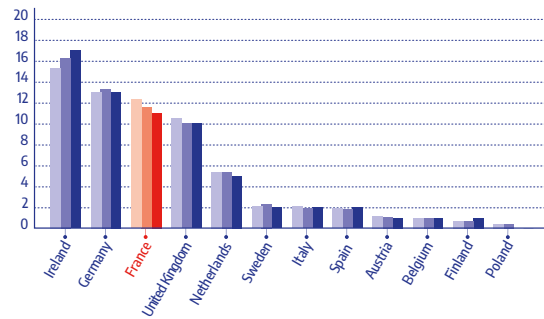


* Less than 0.1%, exact data unavailable

Source: The World's 500 Largest Asset Managers, Willis Towers Watson, 2020

FIG. 76

MARKET SHARE IN EUROPEAN INVESTMENT FUNDS
BY COUNTRY OF DOMICILE
% OF ALL NET ASSETS MANAGED BY FUNDS DOMICILED IN EUROPE



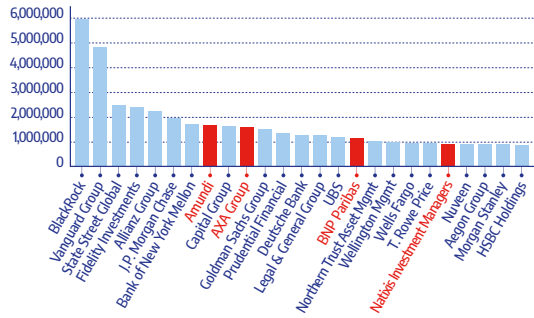
● Dec. 2017 ● Dec. 2018 ● Dec. 2019

Source: European Fund and Asset Management Association (EFAMA), 2020

¹ According to Top Global Banks 2018, S&P Global Market Intelligence

FIG. 77

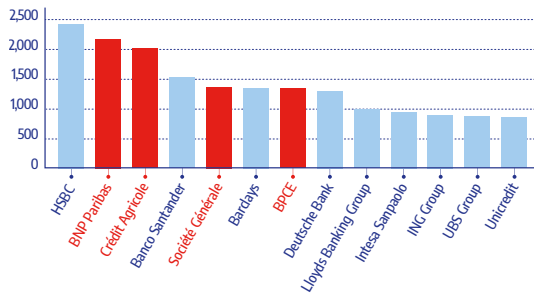
WORLD RANKINGS OF ASSET MANAGEMENT COMPANIES
(2018)
TOTAL ASSETS BEING MANAGED (US\$ BILLION) - TOP 25



Source: The World's 500 Largest Asset Managers, Willis Towers Watson, 2019

FIG. 78

EUROPEAN BANKING GROUPS
TOTAL ASSETS (€ BILLION) - DECEMBER 2019



Source: Top Global Banks, S&P Global Market Intelligence, 2020

Recent laws and government measures facilitating venture capital and lending to businesses

Several legislative measures have been passed in recent years to facilitate and support venture capital investment in France, and investment in SMEs in particular:

- **The 2015 Amended French Government Budget Act, which was revised in 2018**, extended the “Madelin” incentive, which offers income tax relief following equity investment in non-listed SMEs: subject to certain conditions, the law provides for a reduction in income tax equivalent to 18% of the amounts invested (25% for investments made between August 10, 2020 and the end of 2021 – the extension to 2021 should be voted for by the 2021 Finance Act), up to €50,000 a year for a single person (or €100,000 a year for a couple); however, if the investment is made in an SME via a proximity or innovation mutual fund (FIP or FCPI), a single person can invest no more than €12,000 a year (or €24,000 for a couple). These tax breaks also count towards the overall cap on tax exemptions.
- **The 2014 Crowdfunding Act** defined a simplified legal framework for crowdfunding. The main measures included the introduction of a crowdfunding investment advisor status (*conseil en investissement participatif* – CIP) for two types of existing operators (lenders and equity investors), loans from individuals limited to €2,000, no threshold for equity investments, and regulatory disclosures concerning the investors.
- **The 2016 Corporate Venture Investment Amendments** enabled companies investing in innovative SMEs, or in mutual funds mostly invested in innovative SMEs, to write off their investments as tax over five years, subject to certain asset limits, by acquiring an equity stake of up to 20% in the SME.
- **The Action Plan for Business Growth and Transformation (PACTE) Act, promulgated in 2019**, seeks to modernize the euro-croissance fund in order to strengthen the contribution of

life insurance towards financing the economy and to offer broader investment possibilities. The reform facilitates the payment of life insurance contracts in securities or shares of venture capital funds, which will promote the development of these investments by insurers. It has also increased the list of funds eligible for life insurance, including professional private equity funds (FPCI), as well as the opportunities for investment in venture capital investment funds (FCPR).

In addition, investment management for retirement savings deposits will make it possible to direct them towards companies' equity while

ensuring a higher return for the saver. As a reminder, investment management consists of taking into account the investor's investment time horizon. When retirement is a long way off, savings are heavily invested in equities, then gradually invested in guaranteed vehicles (funds in euros and euro-growth funds of insurance companies) or bond or monetary instruments.

Beyond these legislative changes, the **“Relaunch France” plan**, drawn up in response to the economic consequences linked to the health crisis, has led to the creation of a “Relaunch” label, granted to investment funds participating in the

recapitalization of French businesses, in particular SMEs and mid-size companies. This label should allow for savings to be directed towards equity investment, particularly towards private equity vehicles. The “Relaunch France” plan also aims to significantly strengthen Bpifrance's guarantee capacity, so as to guarantee up to €1 billion of investments in French businesses made by eligible private equity funds.

2.7

COST OF LABOR AND TAXATION

The growth and profitability of an economic activity are largely dependent on the cost of labor and the prevailing taxation regime.

Labor costs in France, while higher than the average across our sample, nevertheless correspond to one of the world's highest per employee productivity levels (ninth in OECD countries and fifth in our sample).

Furthermore, France has significantly improved its cost competitiveness since 2009 and growth in unit labor costs has been firmly under control since 2012, notably in industry, thanks to the introduction of the competitiveness and employment tax credit (CICE) and the Responsibility and Solidarity Pact.

The fall in labor costs was more pronounced thanks to the transformation of the competitiveness and employment tax credit (CICE) on January 1, 2019 into a permanent reduction of employer contributions, supplemented on October 1, 2019 by further lowering of contributions at the level of the minimum wage. Together, they allow France today to display a very subdued cost of labor at minimum wage levels in an international comparison.

France is noteworthy for its relatively high level of compulsory social security contributions, which fund the country's system of public services. Lastly, France offers businesses the world's most beneficial tax treatment for research and development expenditure thanks to the research tax credit.

Labor costs

Labor costs are one of the determinants of an economy's attractiveness for international investment. This cost is part of a set of factors, including labor productivity, which makes up an economy's productive capacity.

Higher labor costs can lead to greater productivity, which is the case in France. Changes in these indicators over time is of paramount importance in international competition.

In conjunction with strong labor productivity (see below), labor costs in France in 2019 were relatively higher than in the other countries in our sample: on a national average, hourly labor costs reached €36.60 in France, compared with €35.60 in Germany and €28.20 in the EU-28.

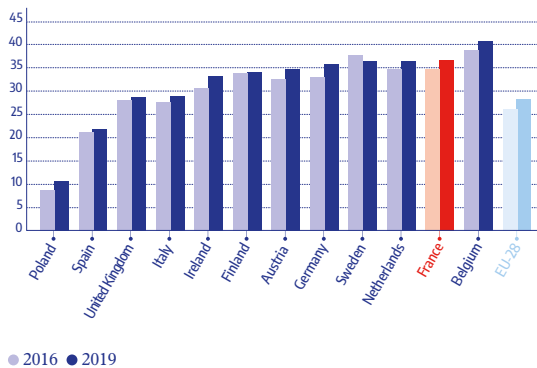
In industry, hourly labor costs were less expensive in France (€39.20) than in Germany (€41.20), while staying higher than the European average (€28.20). Within our sample, France was ranked in 11th place for labor costs in the economy as a whole and ninth in industry.

With regard to the minimum wage, the rate of employer contributions in France is among the lowest by international standards. Reductions in employer contributions have been stepped up in France in recent years, particularly for low-wage earners. In 2015, the Responsibility and Solidarity Pact (PRS), and then in 2019 the transformation of the competitiveness and employment tax credit (CICE) into a permanent reduction of employer contributions, supplemented on October 1, 2019 by further lowering of contributions, have resulted in significant reductions in the cost of labor, in particular at the minimum wage level.

These measures put France in an unusual position: for median wages, France has one of the highest employer contribution rates, but this is not the case for low-wage earners, who benefit from these tax relief measures.

FIG. 79

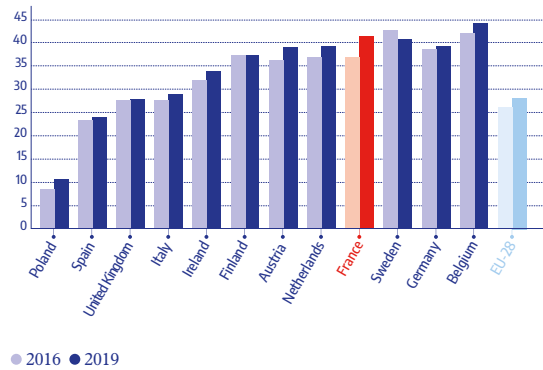
HOURLY LABOR COSTS
€ - TOTAL ECONOMY



Source: Eurostat, 2020; historical data revised by Eurostat

FIG. 80

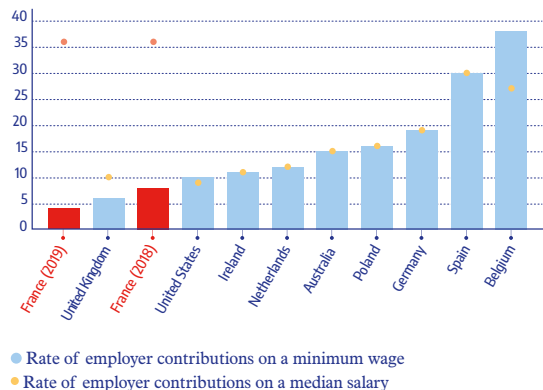
HOURLY LABOR COSTS
€ - INDUSTRY



Source: Eurostat, 2020; historical data revised by Eurostat

FIG. 81

RATE OF EMPLOYER CONTRIBUTIONS AT MINIMUM WAGE
AND MEDIAN SALARY LEVELS (2018)
%



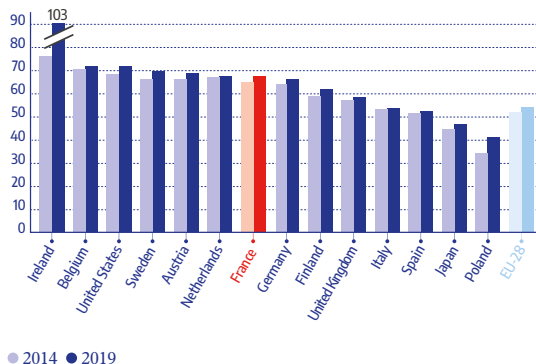
Source: OECD, for the experts group on the statutory national minimum wage

Hourly labor productivity is high in France.

In 2019, it was €67.50, compared with €66.40 for Germany, €58.30 for the United Kingdom, and €54.30 for the EU-28. France is thus ranked seventh in our sample.

FIG. 82

HOURLY LABOR PRODUCTIVITY* (2019) US\$ AT PPP - TOTAL ECONOMY



● 2014 ● 2019

* GDP per hour worked
Source: OECD, 2020

This restraint in labor costs has enabled France to improve its competitiveness since 2013.

France's cost-competitiveness, measured as the relative change in unit labor costs in France and in competing countries, has improved compared

with the rest of the euro zone since the end of 2013 (+3.2% until 2019), helped in particular by the labor cost reduction measures introduced from 2014 onwards (see box).

Price-competitiveness remains stable (+0.4%) thanks to the work by export businesses to rebuild their profit margins, following the significant advances made since 2000.

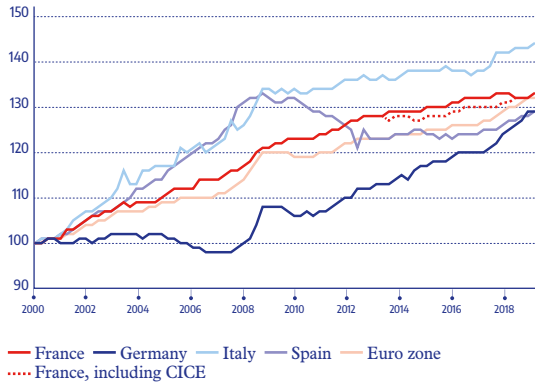
Compared with its OECD partners, France's price and cost competitiveness have also increased since the end of 2013 (+2.7% and +4.8%, respectively, in Q3, 2019). In the recent pre-crisis period, France was still benefiting from this upward trend. Indeed, since 2018, among the large countries of the euro zone, cost competitiveness has increased the most in France (+5.6%), more so than in Spain (+2.3%) and Italy (+1.2%), while it fell in Germany (-0.6%).

These changes are linked to variations in both unit labor costs and productivity. Over this period, unit labor costs increased less in France than in Spain, and especially than in Germany, where growth has been particularly strong in recent times.

For their part, productivity trends differ; it fell in Germany and Italy, particularly in connection with the difficulties of the manufacturing sector in Germany and political uncertainties in Italy. Conversely, productivity in France and Spain continued to increase, although the pace remains limited.

FIG. 83

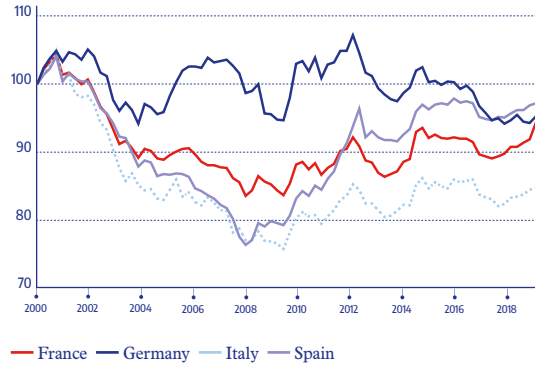
EURO ZONE: UNIT LABOR COSTS
100 = Q1, 2000; LAST POINTS: Q4, 2019



Source: OECD, 2020

FIG. 84

EURO ZONE: TRENDS IN COST COMPETITIVENESS
100 = Q1, 2000; LAST POINTS: Q4, 2019



Source: OECD, 2020

METHODOLOGY

UNIT LABOR COSTS AND COMPETITIVENESS INDICATORS

Cost competitiveness compares unit labor costs between different countries. **Unit labor costs** correspond to the cost of labor weighted by productivity. Unit labor costs are a measure of labor costs per unit of value added produced.

Changes in unit labor costs are determined by fluctuations in both workers' compensation, an increase in which causes unit labor costs to rise, and productivity, an increase in which causes unit labor costs to fall. If productivity increases more quickly than workers' compensation, unit labor costs decrease.

Cost competitiveness is defined as the relationship between unit labor costs in competing economies and those in France. The costs are measured in the economy as a whole, covering both sectors that export the most and sectors that are less open to international trade.

Export price competitiveness is defined as the ratio between export prices for foreign goods or services and that of French goods or services.

In these two cases, data from competing countries are aggregated using a weighting that is based on the importance of the market to France (proportion of total French exports) and the share held by the competitor country in this market.

French price competitiveness improves when French prices rise more slowly than foreign prices expressed in a common currency, which therefore includes the effect of the exchange rate. Besides currency, the difference between changes in cost competitiveness and price competitiveness lies in the changes in company profit margins. Taking advantage of lower costs, businesses can rebuild their margins before translating it into lower prices.

Two sets of competing countries are used, on the one hand our main competitors in the OECD, and on the other hand, in a more targeted way, our main competitors within the euro area.

Labor costs: Competitiveness and employment tax credit and responsibility pact

The competitiveness and employment tax credit (*crédit d'impôt pour la compétitivité et l'emploi—CICE*), introduced by Supplementary Budget Act No. III for 2012 and effective from January 2013, is a deferrable tax credit deductible against corporate income tax.

The tax credit was initially calculated at 4% of gross salaries up to 2.5 times the statutory national minimum wage, rising to 6% in 2014 and 7% in 2017, before falling back to 6% in 2018. **With effect from January 1, 2019, the competitiveness and employment tax credit was abolished and replaced by a 6% reduction in social security contributions** for salaries below 2.5 times the statutory minimum

wage. To emphasize the lower cost of work for the less well paid, this transformation was accompanied by a further four-point reduction at the statutory minimum wage starting on October 1, 2019.

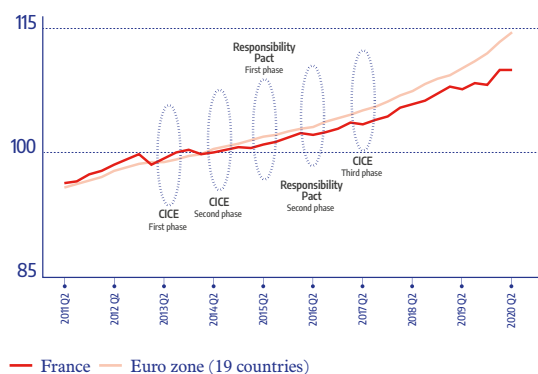
The responsibility and solidarity pact, introduced in 2015,¹ includes a range of measures aimed at reducing the cost of labor and the tax burden on businesses. Under the cost of labor component, an initial tranche was introduced in January 2015 targeting low salaries below 1.6 times the statutory national minimum wage, followed by a second tranche from April 2016 targeting salaries between 1.6 and 3.5 times the statutory national

minimum wage. This component of the pact also included a reduction in self-employed social security contributions from 2015.

The rise in French hourly labor costs has slowed significantly since 2013 relative to the euro zone, thanks to the introduction of the competitiveness and employment tax credit and the responsibility pact. Between the fourth quarter of 2012 and the second quarter of 2020, the increase in labor costs in France was below the average increase for the euro zone as a whole, coming in at 9.8% in France, compared with 14.4% for the euro zone.

FIG. 85

LABOR COST INDEX
(INDUSTRY, CONSTRUCTION, SERVICES)
BASE 100 = Q4, 2012



Source: Eurostat, 2020; Business France calculations

FIG. 86

HOURLY LABOR COSTS
MANUFACTURING SECTOR (EXCLUDING CONSTRUCTION)
€

	2004	2008	2012	2016	2017	2018	2019
Germany	30.3	32.5	35.2	38.4	39.5	40.2	41.2
France	29.5	33.1	36.4	36.8	37.3	38.3	39.1
Italy	22.3	24.2	27.2	27.5	27.5	28.0	28.8
Spain	17.9	20.8	23.0	23.2	23.3	23.5	23.9
Euro zone (19 countries)	24.3	26.9	30.5	31.9	32.6	33.2	34.1

Source: Eurostat

In manufacturing industry, France recorded a small progression in unit labor costs of 1.5% in 2019. By comparison, unit labor costs in industry

grew by 6.4% in Germany, 5.4% in the United Kingdom and 3.3% in the EU-28.

¹ Provision included in the 2015 Social Security Funding Act.

FIG. 87

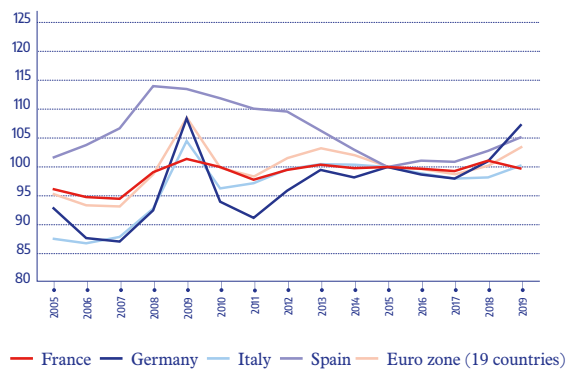
BREAKDOWN OF TRENDS IN UNIT LABOR COSTS
COMPOUND ANNUAL GROWTH RATE (2019)
MANUFACTURING



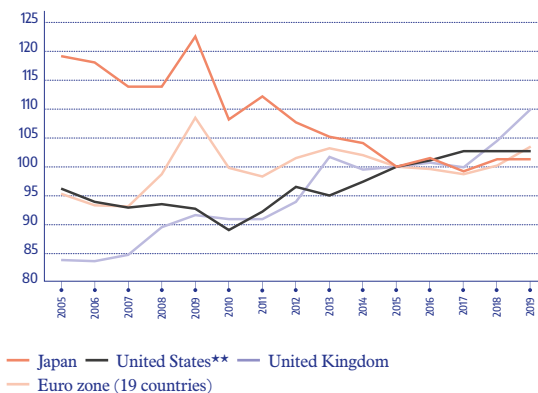
Source: OECD, 2020

FIG. 88

TRENDS IN COST COMPETITIVENESS (2005-2019)
INDICES (BASE 100 = 2015)



* Data for 2018 ** Data for 2017
Source: OECD, 2020; Business France calculations



Japan United States** United Kingdom
Euro zone (19 countries)

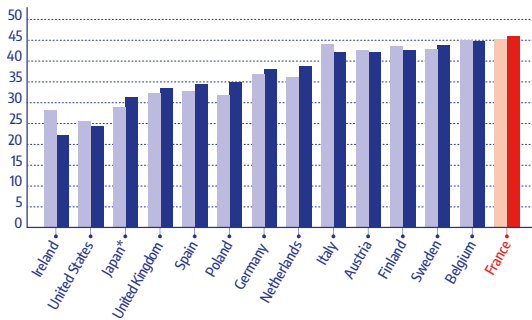
Taxation

The French tax system stands apart from other countries for the significant burden of social security contributions in compulsory deductions, reflecting the generous French public services model that they help to finance (see chapter 2.8 on Quality of life).

Tax receipts amounted to 46.1% of GDP in France in 2018, according to the OECD publication Revenue Statistics, compared with 38.2% in Germany and 33.5% in the United Kingdom. However, the wide range of benefits funded by these taxes – infrastructure (transport, energy, telecommunications), healthcare, education, welfare benefits, culture, etc. – should be factored in when assessing these receipts (see IV. Infrastructure, VIII. Quality of life and IX. Energy and green growth).

FIG. 89

TAX RECEIPTS % OF GDP



● 2013 ● 2018

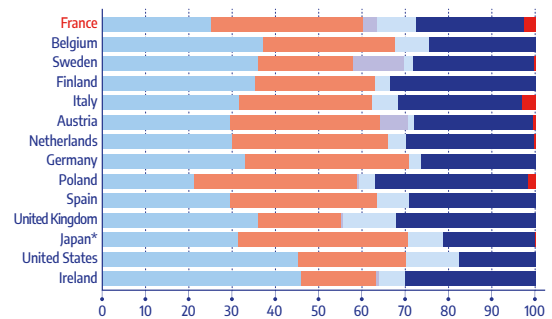
* Data for 2017
Source: OECD, 2019

In terms of the structure of tax receipts, social security contributions represented the largest share (34.9%) of the sources of French tax revenue in 2018.

In terms of income tax, profits and capital gains (for individuals and companies), France offers the lowest rates of imposition in the sample countries: 25.1% of total receipts in 2018. Compulsory deductions in France changed little in 2018, reaching 46.5%, versus 40.5% in the euro zone.

FIG. 90

STRUCTURE OF TAX RECEIPTS (2018) % OF TOTAL RECEIPTS



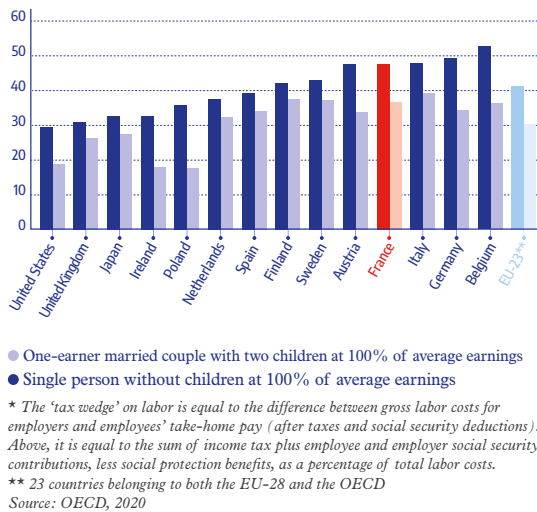
- Taxes on income, profit and capital gains
- Social security contributions
- Tax on payroll and workforce
- Taxes on property
- Taxes on goods and services
- Other taxes

* Data for 2017
Source: OECD, 2019

Concerning taxation of labor, **Germany, Belgium and Italy imposed a higher tax burden than France** on a single person without children earning 100% of average earnings in 2018. For a one-earner married couple with two children at 100% of average earnings, France imposed one of the highest tax burdens, just lower than Italy, Finland and Sweden.

FIG. 91

AVERAGE TAX WEDGE* (2019)
% OF LABOR COSTS

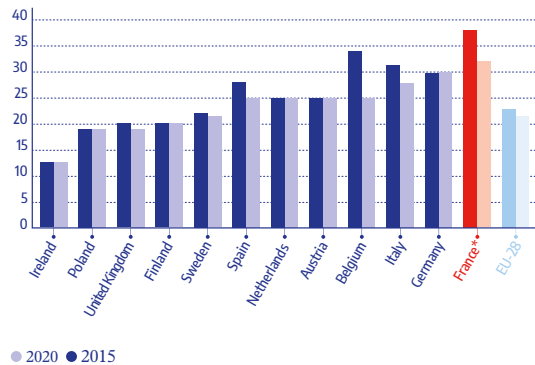


The statutory highest marginal rates of corporate tax still place France in a high position in 2020. **However, the French government has significantly reduced its corporate tax rates in recent years.** Indeed, this indicator notably took into account the exceptional contribution for very large companies from 2013-2015.

In addition, **the French government has committed to lowering the corporate tax rate to 25% in 2022**, which would take France to fourth place in our sample, after Germany, Belgium and Italy.

FIG. 92

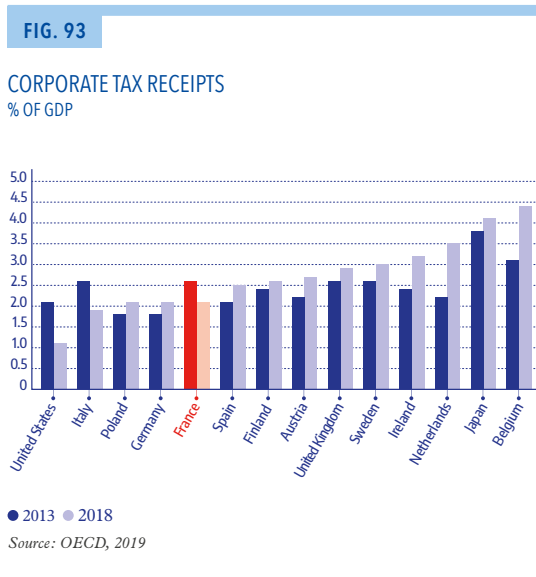
HIGHEST MARGINAL RATE OF CORPORATE TAX INCLUDING EXCEPTIONAL SURCHARGES
%



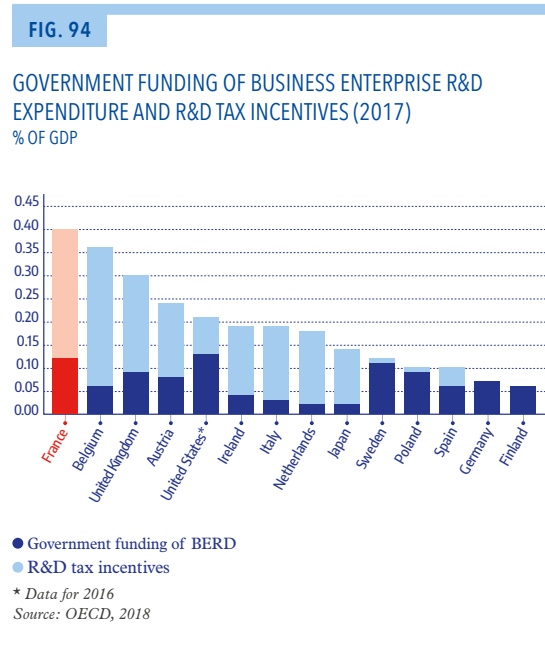
* Including the exceptional contribution for very large businesses in 2013-2015
Source: Eurostat, Taxation Trends in the European Union, 2020

The statutory highest marginal rates also need to be put into perspective when considering revenues related to corporate tax. **In 2018, corporate tax receipts represented only 2.1% of GDP in France**, similar to the level seen in Germany and Poland, and below that of the United Kingdom (2.9%).

This is a result of special treatment for SMEs in France: they receive **reduced tax rates of 15% and 28% according to the amount of profits²** (from €0 to €38,120, and from €38,120 to €500,000).³ France is renowned for having a high rate of corporate tax on large groups, but a narrow base, reduced by waivers and exemptions.



Since reforming its research tax credit in 2008, France has offered businesses the most generous R&D tax treatment, leading the way among OECD members for government funding of business enterprise R&D expenditure and R&D tax incentives, contributing an amount equivalent to 0.41% of GDP in 2017.



² Pre-tax revenues lower than €7.63 million and capital gains entirely distributed and held on at least 75% by private individuals (or by a company fulfilling this criteria) (service-public.fr).

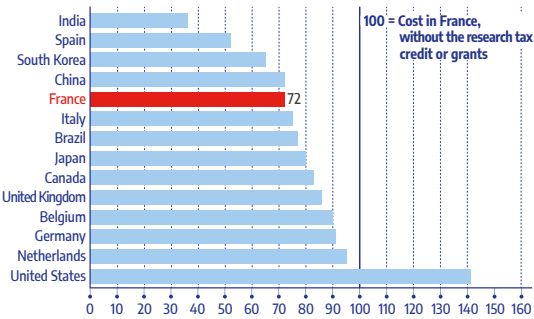
³ It should be noted that even excluding SMEs, in 2018 only beneficiaries above €500,000 are taxed (excluding social security contribution on profits) at 33.33%, and not 28%.

Thanks to the research tax credit, the average cost of employing a researcher is lower in France than in the United States, the United Kingdom, Germany, Australia, Canada and Japan, according to the French National Research and Technology Association (ANRT).

Based on the companies examined, these estimates suggest that the research tax credit and associated grants reduced the cost of employing a researcher in France by 28% in 2018. Meanwhile, the component of the research tax credit incentivizing the employment of junior final-year doctoral and post-doctoral research personnel (*jeunes docteurs*) reportedly results in 1,300 hires in businesses every year (ANRT, 2016).

FIG. 95

AVERAGE COST OF EMPLOYING A RESEARCHER AFTER INCENTIVES (2018)



Source: International comparison of the cost of a researcher – French National Research and Technology Association (ANRT), 2019

Reform of France's research tax credit makes it the most effective R&D tax incentive in OECD countries

The research tax credit (*crédit d'impôt recherche – CIR*) is France's flagship tax measure to encourage companies to expand their R&D operations.

All businesses with R&D operations located in France, regardless of their size or business sector, are eligible.

The French Government Budget Act for 2008 enhanced the research tax credit, transforming it into a very generous incentive and simplifying its administration.

- The research tax credit is calculated solely on the basis of total R&D spending (after the abolition of the "increase-based" component,

previously determined on the basis of the increase in a company's R&D spending).

- The research tax credit rate is set at 30% of eligible R&D expenditure up to €100 million, and 5% above this threshold.

- The amount of research tax credit awarded to companies rose from €1.8 billion in 2007 to €6.8 billion in 2019.

In 2013, the innovation tax credit extended eligibility for the research tax credit to encompass innovation spending by SMEs.

- For expenditure incurred after January 1, 2013, SMEs (as per the European Union definition)

spending on innovation to fund projects to design prototypes, create new products or install pilot equipment are eligible for an innovation tax credit of 20%.

- Eligible innovation expenditure is capped at €400,000 annually. Accordingly, the maximum tax credit a company can receive is €80,000 per year (400,000 x 20%).

It has also been made easier to obtain tacit approval: an advance ruling procedure (*rescrit*) can be initiated once R&D operations have begun but must be submitted at least six months before the research tax credit declaration is made.

Measures to improve businesses' competitiveness in the "Relaunch France" plan

A significant and lasting reduction in production taxes which weigh on the competitiveness of our businesses, particularly in industry (3.2% of GDP in 2018, compared with 1.6% on average in the EU) is set to feature as part of the "Relaunch France" plan.

Aim: To specifically target the competitiveness of our industrial businesses and to facilitate growth and investment in our SMEs and mid-size companies, which create jobs across France's regions.

The reduction in production taxes is based on three measures (€10 billion per year, or €20 billion over the period 2021-2022):

- 1- Business value-added contribution – **reduction by half for all businesses liable for this tax (-€7.3 billion).**
- 2- Property taxes on completed properties (TFPB) and corporate property contribution (CFE) – **reduction by half of the property taxes for industrial establishments, applicable to around 32,000 businesses operating 86,000 establishments: -€1.8 billion in TFPB and -€1.5 billion in CFE.**
- 3- Local economic contribution – **lowering of the cap rate depending on value added, which would be reduced from 3% to 2%.**

Strengthen the balance sheet of micro-enterprises, SMEs, and mid-size companies by using private savings and equity loans.

Aim: To restore the investment capacity of micro-enterprises, SMEs, and mid-size companies seeking to modernize French productive capacity.

- 1- **A public guarantee may be granted to financial investments which will receive a “Relaunch France” label. This will select the most relevant funds for a sustainable recovery of the economy, allowing everyone to direct their savings towards long-term financing, useful for SMEs and mid-size companies.**

2- A State guarantee will also be granted for €20 billion in equity loans for micro-enterprises, SMEs, and mid-size companies.

The banking networks will be able to grant equity loans, i.e. long-term loans, which will be subordinated and similar to quasi-equity finance.

- 3- **At the same time, Bpifrance will step up its corporate financing and the State will add to the investment funds set up by France’s regional authorities.**

Develop industrial production in France’s regions

Aim: To support investments that will allow France to maintain its economic and technological independence.

The “Relaunch France” plan will provide €1 billion to support investments by industrial businesses: €600 million to support investment and promote relocation in five strategic sectors (healthcare, critical inputs for industry, electronics, food industry and industrial uses of 5G), and €400 million to promote the development of industrial projects across France in conjunction with the regional authorities.

Invest in the technologies of the future

Aim: The fourth National Investment Program aims to support significant investment in future technologies and will benefit from €11 billion by 2022.

- 1- **Fund special investments in a few industrial sectors or technologies of the future: digital technologies,**

medical research and healthcare industries, low-carbon energies, responsible agriculture and food sovereignty, sustainable transport and mobility, cities of tomorrow, digital education, as well as cultural and creative industries.

- 2- **Guarantee long-lasting and predictable structural funding for higher education, research and innovation ecosystems, to make France the best place in Europe for researchers and entrepreneurs.**

- 3- The fourth National Investment Program will also intervene in equity, to support the structuring and growth of the business financing market for innovative companies through investment funds.

All French people should benefit from the “Relaunch France” plan, especially micro-enterprises and SMEs

Since micro-enterprises and SMEs account for one-third of all French businesses’ revenues, the revival of our economy will depend on them having a sustainable economic recovery. Micro-enterprises and SMEs will thus directly benefit from certain measures, such as energy renovation, digitization of micro-enterprises and SMEs, creation of real estate to revitalize downtown businesses, and reductions in production taxes. These businesses will therefore directly benefit from important measures, including the thermal renovation of buildings, jobs for young people, etc.

2.8

QUALITY OF LIFE

Quality of life is one of the things that helps make an economy attractive. Whether by attracting highly mobile skilled workers or convincing international investors that their projects will attract such people, local quality of life is a decisive factor when businesses are deciding where to establish themselves.

A few key indicators enable quality of life to be understood, such as life expectancy, access to healthcare, safety of people and the availability of cultural activities. The level of public services provided (education, healthcare, housing, transportation, culture, etc.), which can be measured through expenditure, is also telling.

In France, the public system offers a range of free, high-quality services, notably in education and healthcare, while supporting household living standards. This means France is one of the world's leading countries for access to healthcare, leisure time and personal time.

Health and access to healthcare are among the primary determinants of quality of life.

According to OECD data, life expectancy in France is among the highest in the world. In 2018, France boasted life expectancy at birth of 81.8 years, ahead of Spain (81.5), the United Kingdom (78.3) and the

United States (81.3). In France, life expectancy at age 60 for women (28.2 years) and men (23.5 years) is the second-longest of any country in our sample.

Healthy life expectancy becomes even more important as the average lifespan lengthens, issues of autonomy and dependence come to the fore, and living conditions deteriorate in many regions of the world. **In 2018, France enjoyed the sixth-best healthy life expectancy in Europe (63.9 years, the sixth-best in our sample).**

In 2018, France was ranked second for access to healthcare among the countries in our sample.

Access to the healthcare system is a good indicator of the extent to which France's national health targets are financially supported by the authorities. A system that is hard to access can delay decisions to consult medical professionals, with significant health-related and financial consequences arising from delayed hospitalization for example. Access to healthcare can be measured by private out-of-pocket expenses for health services, which are particularly low in France.

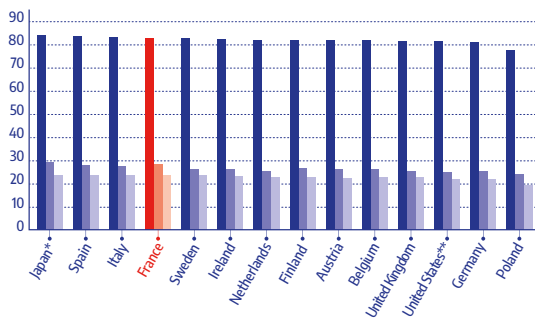
This very moderate level of individual out-of-pocket expenses for health services in France is explained by the high level of financial commitment by the public sector: **in 2018, public healthcare expenditure in France equated to 9.3% of GDP, accounting for 83.4% of total healthcare spending.**¹

Another dimension to accessibility is the geographic distance between healthcare professionals. The transformation strategy of the healthcare system adopted in 2019 by France improves the regional coverage of healthcare, enabling the greatest number to benefit from healthcare services near to their place of residence.

¹ We should note that the OECD combines together public expenditure and mandatory expenditure. With respect to other countries (the United States, the Netherlands and Switzerland in particular), expenditure that is considered to be "public" for France contains a relatively small share of mandatory private insurance expenditure.

FIG. 96

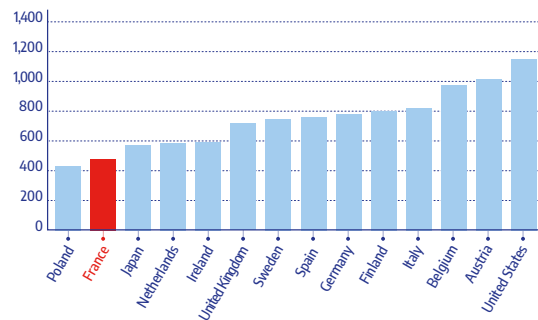
LIFE EXPECTANCY (2018)
IN YEARS



● At birth ● Women, 60 years old ● Men, 60 years old
* Data for 2017
** Data for 2016
Source: OECD, 2019

FIG. 98

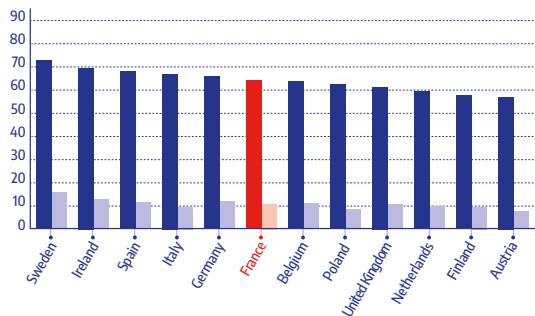
ACCESS TO HEALTHCARE (2018)
PRIVATE OUT-OF-POCKET PAYMENTS PER CAPITA (US\$ PPP)



Source: OECD, 2019

FIG. 97

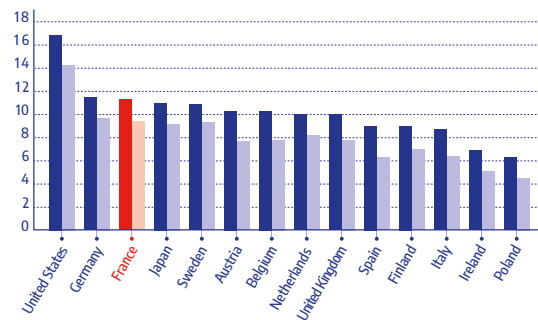
HEALTHY LIFE EXPECTANCY (2018)
IN YEARS



● At birth ● At 65 years old
Source: Eurostat; World Health Organization, 2019

FIG. 99

HEALTH SPENDING (2018)
% OF GDP



● Total expenditure on health ● Public expenditure on health
Source: OECD, 2019

Education and collective childcare provision are another facet of the quality of life a country offers. An effective education system signals a determined commitment to the future (cf. 2.2 Education and human capital).

In 2017, 100% of three- to five-year-olds were in primary education in France, in line with the United Kingdom and ahead of Germany (94.6%) and the United States (66.1%), according to OECD data. Meanwhile, 56.3% of children up to two years old were registered for formal pre-school childcare in France, putting the country second in our ranking, behind the Netherlands (59.3%). It should be noted that in France, from the start of the 2019 school year, teaching (in school or at home) has been made compulsory from the age of three years.

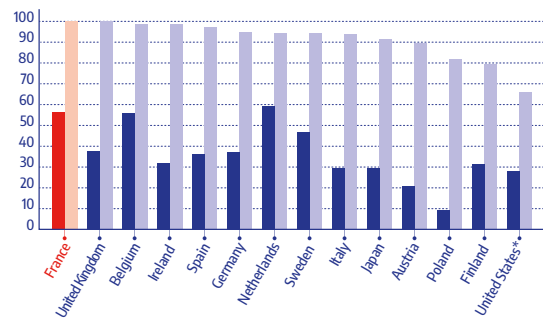
Childcare is affordable in France. In 2019, net expenditure for a household consisting of a couple with average earnings and two children aged two and three years old using childcare came to 11% of net household income in France, behind Germany (1%) but ahead of the United States (14%) and the United Kingdom (24%).

Meanwhile, France's public sector commitment to education is substantial: in 2017, 5.2% of French GDP was dedicated to education (including higher education), with 84% of this amount publicly funded. Domestic expenditure on education came to US\$12,080 per student, higher than the OECD average of US\$11,231.²

This sum in France was US\$8,319 for a primary school student, US\$11,252 for a secondary school student, US\$14,747 for a high school student and US\$16,952 for a university student. By comparison, for an average student in OECD countries, it was US\$9,090 for a primary school student, US\$10,527 for a secondary school student, US\$10,888 for a high school student and US\$16,327 for a university student.

FIG. 100

SCHOOL AND PRE-SCHOOL FOR CHILDREN AGED 0-5 (2017)
% OF THE TOTAL OF EACH AGE CATEGORY

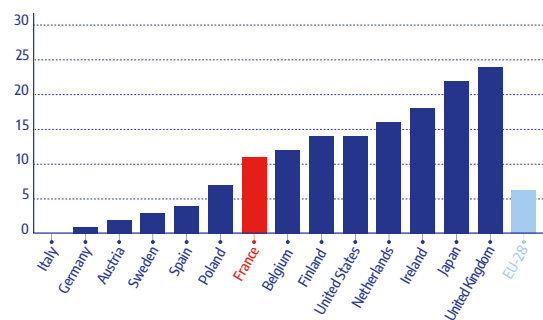


- Proportion (%) of children aged 0-2 enrolled in formal childcare and pre-school
- Proportion (%) of children aged 3-5 enrolled in pre-primary education or primary school

* Data for 2011 (dernière année disponible pour les États-Unis)
Source: OECD, 2018

FIG. 101

NET CHILD CARE COST FOR PARENTS USING CHILDCARE (2019)
FOR A COUPLE WITH TWO CHILDREN WITH AN INCOME EQUAL TO THE AVERAGE WAGE
% OF NET HOUSEHOLD INCOME



Source: OECD, 2020

² OECD, Education at a Glance, 2020. Amounts expressed in US\$ converted on the basis of PPP.

The social protection a country offers its residents takes a variety of forms: family allowances, paid leave, housing aid, unemployment benefits, etc.

Spending on social protection – covering benefits for disability, families and children, housing, social exclusion, old age, sickness, healthcare, and unemployment – **is higher in France than in all other OECD countries, reflecting the high level of social protection available to French residents.**

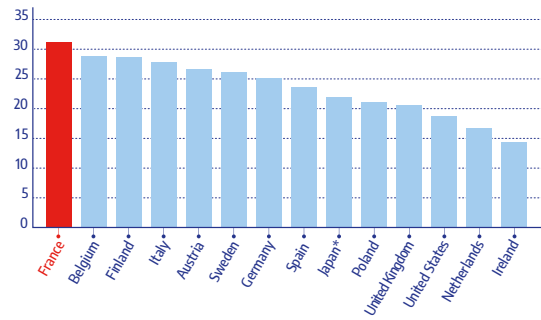
According to OECD estimates, public spending on social protection equated to 31.2% of GDP in France in 2018, compared with 25.1% in Germany, 20.6% in the United Kingdom and 18.7% in the United States.

Looking at the various different branches of social protection over and above health and old age pensions, in 2015 France fared particularly well on support for housing (0.7% of GDP; ranked third), and unemployment benefits (1.9% of GDP; ranked second).

Another indicator reflects the level of support available to a country’s residents is the amount of paid maternity, paternity and parental leave available to mothers and fathers.³ Combining mothers and fathers, such leave totaled 70 weeks in France in 2018 (putting the country third in our sample), ahead of Germany (66.7), the United Kingdom (41) and the United States (no federal paid leave).

FIG. 102

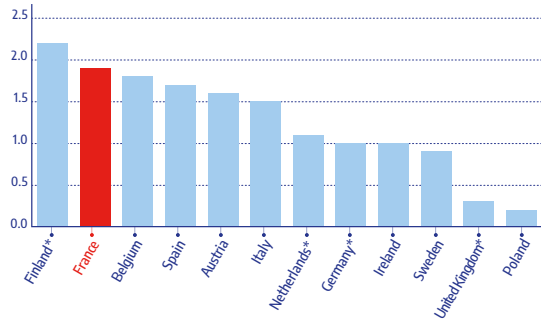
PUBLIC SPENDING ON SOCIAL PROTECTION (2018)
% OF GDP (ESTIMATE)



* Data for 2015
Source: OECD, 2019

FIG. 103

PUBLIC SPENDING ON SOCIAL PROTECTION (2018)
UNEMPLOYMENT AND ACTIVE LABOR MARKET POLICIES
% OF GDP



* Data for 2017
Source: Eurostat, 2019

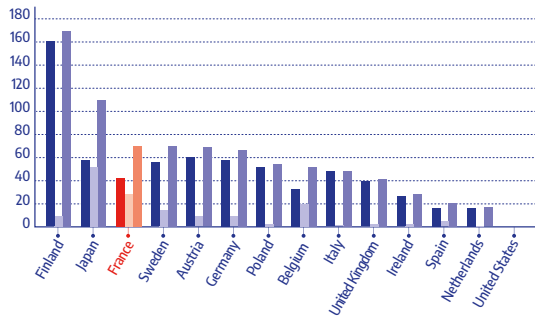
³ The 2021 French government social security budget bill provides for an extension to paternity leave of 28 days.

Leisure and culture are inherent components of quality of life. In 2018, French people spent more than 16 hours a day on leisure and themselves, putting the country second in our sample after Italy. France came out ahead of Germany (15 hours 37 minutes), the United Kingdom (14 hours 55 minutes) and the United States (14 hours 26 minutes).

Finally, the level of public spending on culture, leisure and worship confirms the steadfast commitment of citizens to quality of life. France was the second largest contributor in 2018, after Finland, spending the equivalent of 1.4% of GDP.

FIG. 104

**PAID MATERNITY, PATERNITY AND PARENTAL LEAVE (2018)
FOR FATHERS AND MOTHERS - IN WEEKS**

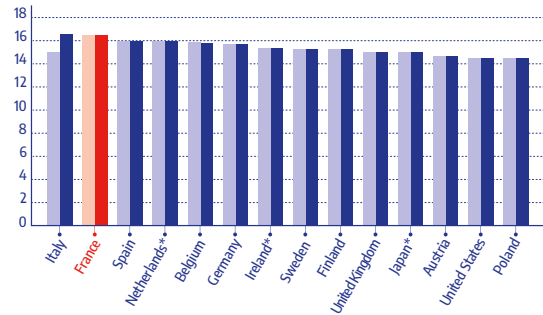


- Length of paid maternity and parental leave for mothers
- Length of paid paternity and parental leave for fathers
- Combined length of paid maternity, paternity and parental leave for mothers and fathers

Source: OECD, 2019

FIG. 105

**TIME DEVOTED TO LEISURE AND PERSONAL CARE (2017-2018)
HOURS PER DAY**



● 2017 ● 2018

* Data for 2017 only

Source: OECD, Better Life Index – 2017 and 2018

Thanks to easy access to healthcare, social protection, an effective education system and cultural activities, France offers its inhabitants full, high quality of life. This living environment is mainly funded through public spending, without penalizing residents' income or standard of living.

In 2019, **French households had a high level of net adjusted income.** This indicator, which is a measure of the maximum amount a household can spend without having to borrow or eat into its assets, is calculated by taking gross household income before deductions (earnings, property income, etc.), adding mainly social transfers in cash (social minima, family allowance, retirement pensions, unemployment benefit, etc.) and deducting direct taxes (taxes on income and assets, social security contributions, etc.).

In 2018, France's average adjusted gross income came in at US\$26,158 (current PPP), after Germany (US\$30,333), but ahead of the United Kingdom (US\$25,155).

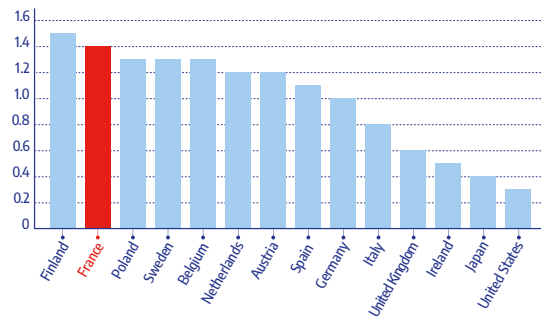
Inequality in living standards also has a substantial effect on quality of life, insofar as a low level of income inequality promotes living together. France's Gini coefficient, which measures such inequalities (cf. methodology hereafter), averaged 0.29 in 2017 after redistribution, a better level than the United Kingdom (0.36) and the United States (0.39), and was in line with Germany (0.29).

The redistribution operated by the tax and social security regimes means that gaps in living standards can be substantially reduced: before monetary transfers and direct debits, the Gini coefficient would be 0.52 in France (versus 0.50 in Germany and 0.51 in the United Kingdom and the United States). The income interdecile ratio (P90/P10, cf. methodology) puts France (3.4) at a better level than Germany (3.7), the United Kingdom (4.3) and the United States (6.2).

Lastly, the OECD calculates a monthly indicator of comparative price levels in member countries. Based on a representative basket of goods and services, it can be used to obtain comparative price levels relative to a baseline country. According to the indicator, prices in Ireland, the United States, the United Kingdom and the Netherlands are higher than in France, while prices in Poland, Spain, Italy and Germany are lower.

FIG. 106

PUBLIC SPENDING ON CULTURE, LEISURE AND WORSHIP (2018)
% OF GDP



Source: OECD, 2019

FIG. 107

GROSS ADJUSTED HOUSEHOLD DISPOSABLE INCOME (2018-2019)
PURCHASING POWER STANDARD

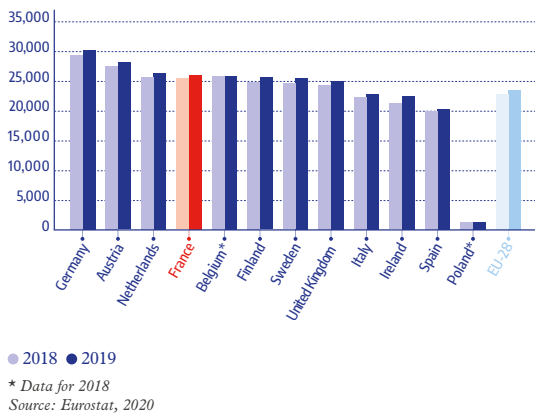
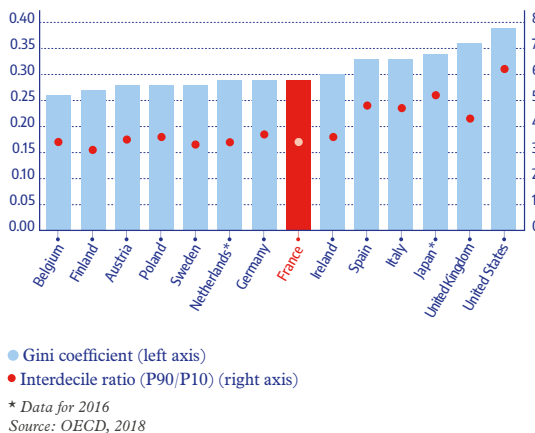


FIG. 108

INCOME INEQUALITY (2017)



METHODOLOGY:

MEASURING LIVING STANDARDS DISTRIBUTION INEQUALITY

The Gini coefficient is used to measure the degree of overall living standards inequality within a country. It ranges from zero to 1, with zero indicating perfect equality, where everyone has the same living standards, and 1 indicating complete inequality, where all the income goes to a single household.

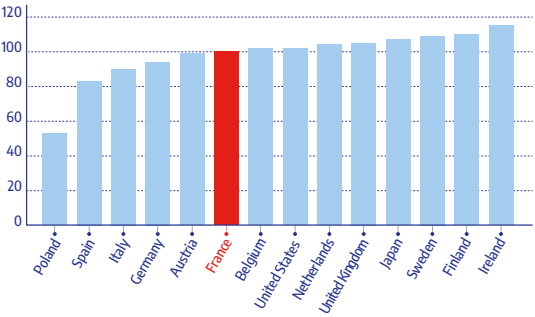
The higher (closer to 1) the Gini coefficient, the greater the inequality. A drop in the Gini coefficient indicates an overall reduction in inequality of living standards.

Another indicator of inequality is the **income decile ratio (P90/P10)**, calculated as the ratio of the level of living standards at the 90th percentile to the level of income at the 10th percentile. The higher the income decile ratio, the more unequal the living standards distribution.

For a country’s inhabitants to enjoy genuine well-being, safety is paramount. France is one of the safest countries in our sample. For example, France had one of the lowest homicide rates of any country in our sample in 2018. According to the latest OECD data available, the homicide rate in France is 0.5 per 100,000 inhabitants, one of the lowest rates in the OECD area, where the average rate is 3.7.

FIG. 109

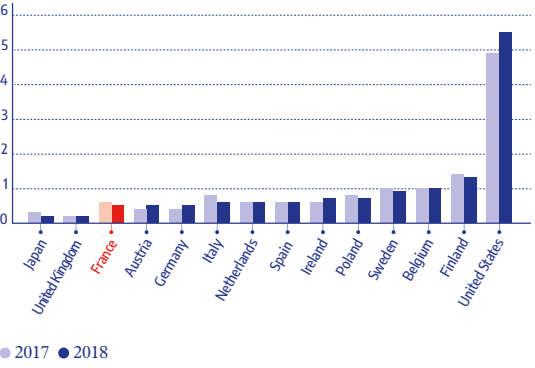
COMPARATIVE PRICE LEVELS (AUGUST 2020)
€ PPP, FRANCE = 100



Source: OECD, 2020

FIG. 110

HOMICIDE RATE
RATIO PER 100,000 INHABITANTS



Source: OECD, Better Life Index, 2017 and 2018

Report by the Commission on the measurement of economic performance and social progress

Statistical indicators are important when it comes to designing and assessing policies seeking to ensure progress in society. However, disparities exist between the statistical measurement of socio-economic realities and the way that citizens perceive them.

In 2009, a commission chaired by Nobel prize laureate Joseph Stiglitz reported back to the President of France on possible avenues to improve the measurement of economic growth and correct the shortcomings of the long-criticized benchmark indicator, gross domestic product (GDP).

One of the distinctions the report made was between assessing present well-being and sustainable well-being. Present well-being is contingent not only upon financial resources, such as income, but also non-financial dimensions, including subjective perception and natural environment.

Although the full list of these aspects inevitably depends largely on value judgments, there is consensus that quality of life depends on health and education, conditions of everyday life (including the right to

decent employment and housing), participation in the political process, people's social and natural environment, and factors that define personal and financial security.

The commission also recommended establishing a series of indicators to give the measurement of well-being more importance in economic statistics.

In this context, and in recognition of its 50th anniversary, the OECD chose the theme "Better policies for better lives" and launched the "Your Better Life" initiative.

This is a new interactive index that enables each country to measure and compare its own quality of life by stepping outside the conventional GDP-based statistical framework. The index has 11 dimensions: housing, income, jobs, community, education, environment, governance, health, life satisfaction, safety and work-life balance – which can all be given their own weight in accordance with user preferences.

France obtains good results against numerous wellbeing indicators in

comparison with most other countries. **France is above the average for the areas of income and wealth, housing, health, civic engagement, social links, work-life balance and safety.**

Among the leading variables are:

- In terms of health, life expectancy at birth in France is approximately 82 years, more than two years higher than the OECD average. Life expectancy with women was 86 years, against 79 years for men.
- In terms of the public sphere, the feeling of belonging and the degree of participation of citizens were high in France.
- Voter turnout – a measure of citizens' participation in the political process – was 75% during the most recent presidential elections, higher than the OECD average of 68%. In France, voter turnout is estimated at 78% for the 20% most wealthy, against 70% for the 20% least wealthy. This difference is less big than the average gap within the OECD of 13 percentage points.

UNDP human development index

Every year since 1990, the UNDP Human Development Report has published the Human Development Index (HDI), which was introduced as an alternative to conventional development measures like income levels and economic growth rates. The HDI reflects a desire for a broader definition of well-being.

The index was created to bring attention to the fact that the ideal measure of a country's development lies in people and their abilities, not

simply economic growth. It can also be used to evaluate domestic policy decisions by studying how two countries with the same per capita gross national income can produce such disparate levels of human development.

The HDI is a summary composite index that gauges a country's average achievements in three fundamental aspects of human development: a long healthy life (health), access to knowledge (education) and a decent

standard of living (income).

In 2017, France's index score was 0.901, placing it among countries with a very high level of human development. France was ranked 24th in the world, after Germany (fifth place, with an HDI score of 0.936), and the United Kingdom (14th place, with an HDI score of 0.922), but ahead of Spain (26th place, with an HDI score of 0.891) and Italy (28th place, with an HDI score of 0.880).

“Ma Santé 2022” and “Ségur de la Santé”: a strategy to transform the healthcare system

The strategy to transform France's healthcare system, dubbed “Ma Santé 2022”, was unveiled on September 18, 2018 by the French government and adopted by parliament on July 16, 2019.

The strategy aims to remedy the existing system's lack of flexibility amid growing financial strain, with a focus on three key themes: putting patients and quality of care back at the heart of the system;

responding to local care needs (by joining up non-hospital medicine, medico-social care and hospital medicine); and rethinking training and career paths for healthcare professionals.

Key measures included in this reform are as follows:

- Putting in place fixed-price funding for hospital treatment of chronic pathologies from 2019, including the

hospital component of treatment for diabetes and chronic kidney failure. This funding will be extended to other pathologies from 2020.

- Creating 1,000 local professional healthcare communities (Communautés professionnelles territoriales de santé or CPTS), intended to cover the whole country by 2022 and to facilitate local coordination between healthcare professionals.

- **Developing medical assistants** working with independent medical practitioners, including conditional financial support, with the aim of freeing up medical time and allowing doctors to focus on delivering care.
- **Introducing a “local hospital” designation from 2020** to ensure local provision of hospital services, with a target of 500-600 designated hospitals.
- **Reforming the rules governing authorization of healthcare activities** organized at regional and local level, based on a graduated scale of care costs. This phased reform will result in new standards for certain activities with effect from 2020.
- **Creating a single “hospital practitioner” status** and scrapping the competitive examination for hospital practitioners.
- **Restoring the “collective” role of the health service** in organizing healthcare services and managing care personnel.
- **Increasing doctors’ involvement in running hospitals.**
- **Scrapping the numerus clausus system and overhauling the first stage of medical studies curricula** to open them up to a more diverse range of students and create gateways between healthcare careers.
- **Reforming the second stage of medical studies curricula** and **scrapping national ranking examinations** and adopting an approach based on students’ skills, ability and career goals.

In May 2020, the French government carried out a consultation with key players in the healthcare sector in order to draw conclusions from the Covid-19 crisis and make the healthcare system more resilient and more innovative. The consultation, known as the “*Ségur de la santé*”, was structured around four pillars:

- Transformation of professions and upgrading of careers for care workers.
- Definition of a new investment and financing policy promoting the quality of care.
- Simplification of organizations and the daily life of healthcare teams.
- Federation of key players in the healthcare sector across France’s regions, to better serve patients and tackle healthcare inequalities.

The “*Ségur de la santé*” led to an agreement being presented in July 2020, outlining an ambitious strategy for the French healthcare system, in particular through commitments in favor of the upgrading of careers, an increase in the number of trained paramedics, improvement in the organization of healthcare across France’s regions, investment in particular in the thermal renovation of buildings, digital development in healthcare, and the fight against healthcare inequalities.

Poverty prevention and reduction strategy

The national strategy for preventing and combating poverty, unveiled by the French President on September 13, 2018, aims to “build a 21st century welfare state” that can combat inequalities of birth. Its implementation involves meeting a number of commitments:

- **Strengthening equality of opportunity from early childhood onward.** is to offer all children a framework for socialization, encourage social diversity and improve the educational quality of care for young children. There is a particular emphasis on vulnerable areas: regional bonuses have been created to encourage the creation of new childcare places in priority areas. In addition, the rollout of new educational guidelines will promote pre-kindergarten child development and language learning. It will be accompanied by a continuing education plan aimed at 600,000 early years specialists.
- **Guaranteeing children’s fundamental rights.** One goal is to ensure every child has access to a balanced diet, through measures including the provision of school breakfasts in underprivileged

areas and the introduction of more affordable prices for school meals.

- **Insuring a guaranteed educational pathway for every young person.** The goal is to invest significantly in education and training for young people and support those at risk of dropping out of the education system. The minimum age at which a child can leave full-time education will thus be raised to 18.
- **Making social rights more accessible, more equitably and more incentivizing to employment.** The “100% santé” reform fights against health inequalities by making a basket full of healthcare in the optical, dental and audiological fields fully eligible for social security and complementary health programs.
- **A public employment support service to help jobseekers find work.** The most vulnerable individuals will receive stronger global support from Pôle Emploi and Departmental Councils, as well as support provided to start economic activity. Furthermore, various successful experiments will be extended, including the “Zero long-term unemployment zone”

program.

In addition to the €8 billion to support this strategy, the government has also taken measures to fight poverty during the Covid-19 crisis worth more than €1.5 billion, along with more than €6 billion of poverty reduction measures which form part of the “Relaunch France” plan.

The government is also introducing new range of actions to strengthen the strategy for preventing and combating poverty. It will be based on three main priorities: supporting the purchasing power of people in poverty or on low incomes and providing them with daily support (financial aid, reducing the non-take-up of welfare benefits, housing, etc.); helping them to leave poverty behind by helping unemployed people to integrate into society and find work (strengthening of the integration system through economic activity, doubling the number of skilled jobs in priority areas of the city, etc.); and ensuring suitable housing and accommodation conditions, as well as preventing unpaid rents (increase in emergency accommodation places, doubling the number of social housing at very low rent levels, etc.).

2.9

ENERGY AND GREEN GROWTH

The world mobilizing to protect the environment raises new challenges for energy supplies to sectors of the economy. Placing companies in the innovative sectors of energy efficiency and the production of renewable energy, as well as the capacity to secure well-priced sources of reliable energy are all key elements of economic attractiveness.

With high-quality energy infrastructures, France succeeds in guaranteeing its economy continuous access to very stable and competitively priced electricity over time.

Green growth also bears economic and job opportunities, especially in green energy.

Competitive electricity prices

The attractiveness of a country depends partially on its capacity to ensure access to sources of reliable energy that is competitive in the long run.

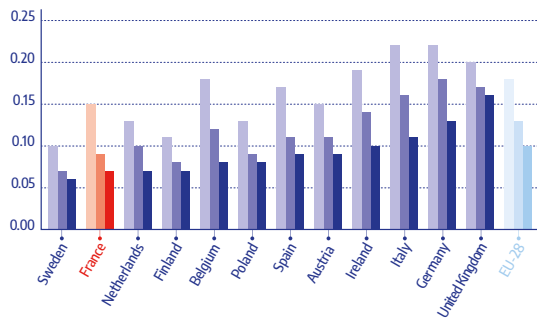
Electricity rates are especially attractive for businesses operating in France, and are among the most competitive in Europe due to France's energy mix and careful management of electricity generation and the national grid.¹ The variability of electricity rates in France is also low.

In the European Union, France stands out for the original nature of its energy mix. The predominance of nuclear energy has enabled France to have competitive electricity, with a low carbon content, and to insure the country's energy independence. Electricity production from nuclear energy in France accounts for nearly three-quarters of total output.

¹ In 2017, according to the Sustainable Development Division of the Ministry for the Ecological Transition (Energy Key Figures, 2019), electricity was the leading energy form consumed in industry (38% of energy consumption in this sector), in the residential sector (33%) and the major form of energy for the tertiary sector (49%).

FIG. 111

ELECTRICITY RATES (H2, 2019)
NON-RESIDENTIAL CONSUMERS, BY LEVEL OF CONSUMPTION
RATE INC. VAT (€/KWH)

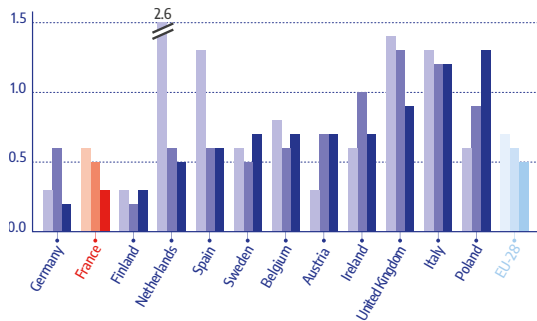


● 20 MWh - 500 MWh ● 2,000 MWh - 20,000 MWh
● 70,000 MWh - 150,000 MWh

Source: Eurostat, 2020

FIG. 112

VARIABILITY OF ELECTRICITY RATES (H2, 2016 - H2, 2019)
NON-RESIDENTIAL CUSTOMERS, BY LEVEL OF CONSUMPTION
STANDARD DEVIATION (%) OF RATES INC. VAT



● 20 MWh - 500 MWh ● 2,000 MWh - 20,000 MWh
● 70,000 MWh - 150,000 MWh

Source: Eurostat, 2020; Business France calculations

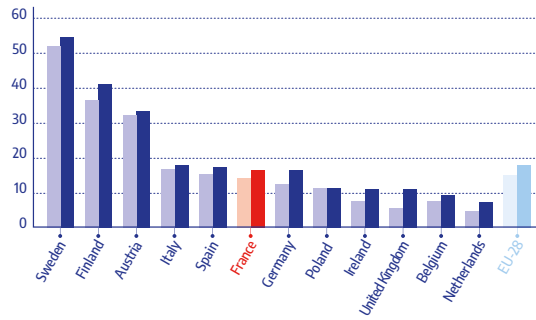
Largely carbon-free French energy

Renewable energy in EU-28 countries accounts for 18% of gross final energy consumption in 2018, or more than double its level in 2004 (8.5%).²

Sweden stands out from other countries, with renewable energy accounting for a very high proportion of gross final energy consumption (54.6% in 2018). In France, renewable energy accounted for 16.6% of gross final energy consumption in 2018, similar to Germany (16.5%) and higher than in the United Kingdom (11%).

FIG. 113

SHARE OF RENEWABLE ENERGIES IN GROSS FINAL ENERGY CONSUMPTION (EU-28)
%



● 2013 ● 2018

Source: Eurostat, 2019

² Eurostat, January 2020.

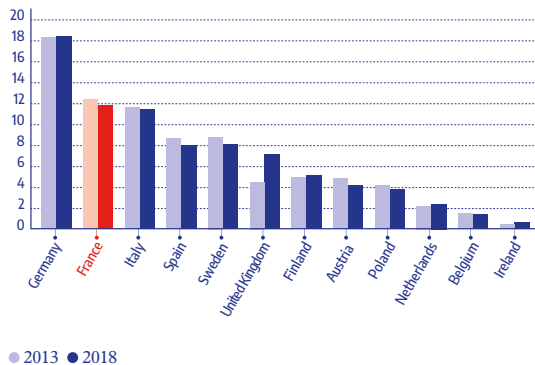
In terms of energy production, nearly 28% of primary energy generation in EU-28 countries in 2018 was from renewable sources, after fossil fuels (41.5%) and nuclear energy (28.7%).

In its Global Climate Action Agenda, the European Union set itself a target of bringing the share of energy produced from renewable sources to 32% in 2030 (see inset).

France was Europe's second-largest generator of energy derived from renewable sources in 2018, with its output representing nearly 12% of the EU-28 total. The top contributor was Germany, which accounted for 18.4% of the total.

FIG. 114

PRIMARY ENERGY GENERATION FROM RENEWABLE SOURCES
SHARE OF EU-28 TOTAL
%



Source: Eurostat, 2019; Business France calculations

The Paris Climate Agreement (COP 21)

Faced with the challenges posed by climate change, the 195 State Parties to the COP 21 negotiations committed to sign a **universal, legally binding agreement** in Paris in December 2015. This agreement aims to limit the average temperature rise: “holding the increase in the global average temperature to well below 2 °C [...] and pursuing efforts to limit the temperature increase to 1.5 °C.”

The Agreement recognizes that states have **shared but differentiated responsibility** for global warming. National contributions to the effort to combat global warming are freely determined by each state so as to flexibly take into account this principle of differentiated responsibility. Furthermore, developed states jointly committed in Copenhagen in 2009 to make available US\$100 billion a year of public and private sector funding

with effect from 2020 to help finance developing countries’ climate change prevention actions.³

The Paris Climate Agreement entered into force in 2016 and its implementation rules were adopted at the 24th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP24) in December 2018.

Energy-Climate Act

Adopted on November 8, 2019, the Energy-Climate Act sets ambitious targets for French energy and climate policies. Comprising 69 articles, it establishes the aim of achieving carbon neutrality in 2050 to meet the requirements of the climate emergency and the Paris Agreement.

The text sets the scope, ambitions and targets for energy and climate policies in France through four major areas:

- The progressive abandonment of fossil fuels and the development of renewable energies. Reducing our dependence on fossil fuels through a 40% reduction in fossil fuel consumption and accelerating the development of renewable energies.

By 2022, it plans for the shutdown of electricity production from coal, the installation of solar photovoltaic panels and any other process for renewable energy production or vegetabilization for new warehouses and commercial buildings. To prevent energy leaks, thermal renovation is a major issue in the fight against climate change.

- The establishment of new tools for piloting, governing and evaluating climate change policy.

Drawing on the British “Committee on Climate Change” for inspiration, the Act creates the High Council for the Climate, an independent consultative body, which will

evaluate France’s climate strategy and the effectiveness of policy implemented to achieve its ambitions.

From 2023, a Programming Act set forth every five years will set the main energy targets for renewable energy, energy consumption, the abandonment of fossil fuels, and minimum/maximum levels of obligation for energy saving certificates.

- The main aims of the regulation of the electricity and gas sector are to allow for a better control of energy prices and to reduce our dependence on nuclear fuel.

³ This annual amount will be increased from 2025. Negotiations on the new agreements have not yet begun.

The structure of electricity generation by country highlights the specific nature of each country's energy mix, more or less dependent on fossil fuels.

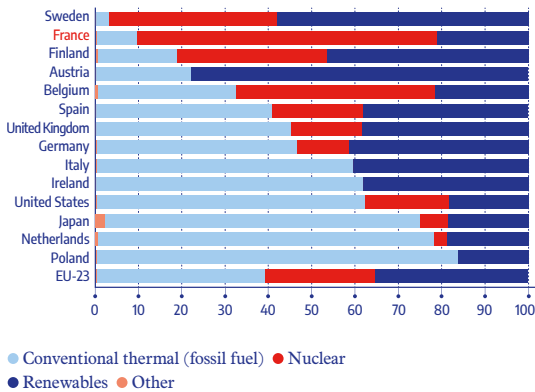
France, like Sweden, produces very carbon-free electricity due to the very small share of thermal generation in its energy mix. **Less than 10% of France's electricity was produced from carbon-based fuels in 2019.** This distinctive feature of France is due to the predominance of nuclear energy, around 70% of total electricity production in 2019, which is a reliable source of energy that gives rise to little greenhouse gas emissions.

Although significant efforts have been made to develop renewable energy, electricity generation by the major economies in our sample remains highly dependent on fossil fuels, such as in the United Kingdom (where 45% of electricity production was of fossil origin in 2019), Germany (46.2%), the United States (62.1%), Japan (72.7%), the Netherlands (77.5%) and Poland (83.5%).

FIG. 115

ELECTRICITY GENERATION BREAKDOWN (2019)

%



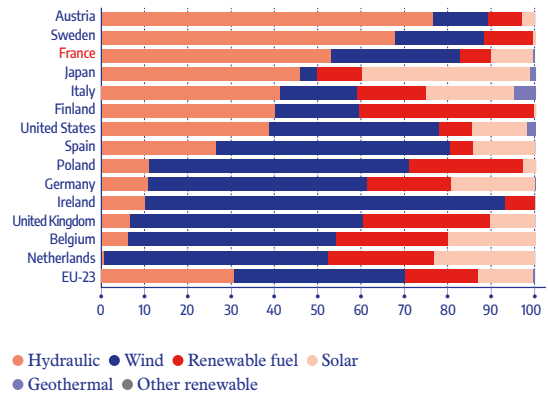
Source: International Energy Agency, 2020; Business France calculations

The structure of renewable electricity production in France is similar to Italy. Hydroelectricity in France remains the most distributed renewable energy, as in Austria, Sweden and Italy. Renewable energy in France is growing, resulting from the growth in production of solar photovoltaic and wind power.

FIG. 116

RENEWABLE ELECTRICITY GENERATION BREAKDOWN (2019)

%



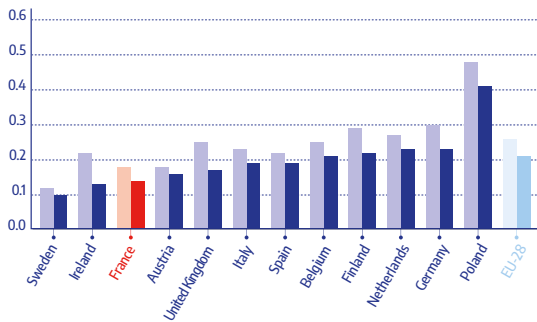
Source: International Energy Agency, 2020; Business France calculations

The environmental quality of the generation process, and of the economy in general, plays a decisive role in the development of sustainable green growth.

Environmental quality can be measured by the amount of CO₂ emissions generated by an economy relative to its size. Carbon intensity is a measure of greenhouse gas emissions arising from energy consumption, expressed in units of GDP. This indicator suggests relatively low levels for the main European economies. **France's very low carbon intensity** is partly explained by the nature of its energy mix, which favors nuclear energy over fossil fuels.

FIG. 117

CARBON INTENSITY
THOUSAND TONNES GREENHOUSE GAS EMISSIONS*
GDP MILLION AT PPP



● 2013 ● 2018

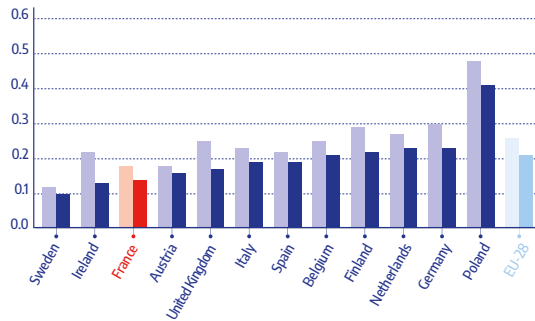
* Greenhouse gases: CO₂, N₂O in CO₂ equivalent, CH₄ in CO₂ equivalent, HFC in CO₂ equivalent, PFC in CO₂ equivalent, SF₆ in CO₂ equivalent, NF₃ in CO₂ equivalent.

Source: Eurostat, 2019; Business France calculations

Similarly for France's carbon intensity, the country's greenhouse gas emissions (per thousand inhabitants) put it above the average of the European Union.

FIG. 118

GREENHOUSE GAS EMISSIONS*
PER THOUSAND INHABITANTS (THOUSAND TONNES OF CO₂)



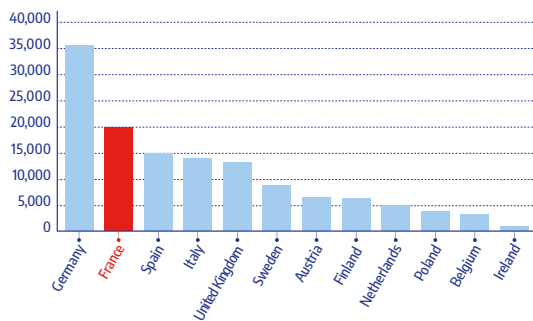
● 2013 ● 2018

* Greenhouse gases: CO₂, N₂O in CO₂ equivalent, CH₄ in CO₂ equivalent, HFC in CO₂ equivalent, PFC in CO₂ equivalent, SF₆ in CO₂ equivalent, NF₃ in CO₂ equivalent.

Source: Eurostat, 2019; Business France calculations

Green growth is also a source of economic opportunities and jobs, particularly in the green energy sector. The most advanced countries in these sectors for the future are attracting foreign investors eager to position themselves in these fields.

FIG. 119

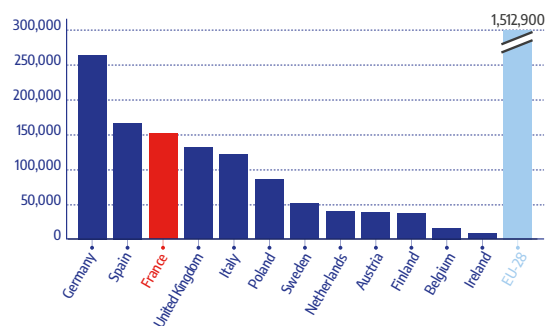
REVENUES IN THE RENEWABLE ENERGIES SECTOR (2018)
M€

Source: EurObserv'ER (new methodology), The state of renewable energies in Europe, 2019

According to EurObserv'ER, **France was Europe's third-largest employer in the renewable energy sector in 2018**, with 151,600 jobs (0.5% of its working population). The top country in this area was Germany, with 263,700 jobs (0.7% of its working population), followed by Spain, with 167,100 jobs (0.7%). The United Kingdom and Italy counted 131,400 and 121,400 jobs (0.4% and 0.5% of their respective working populations).

FIG. 120

EMPLOYMENT IN THE RENEWABLE ENERGIES SECTOR (2018)



Source: EurObserv'ER (new methodology), The state of renewable energies in Europe, 2019

Government Climate Plan

On July 6, 2017, the Minister for the Ecological and Inclusive Transition unveiled the Government Climate Plan, calling on all ministries to speed up the energy and climate transition and implement the Paris Agreement over the course of the president's five-year term of office.

The main focuses of this national strategy are as follows:

- **To make the Paris Agreement irreversible** by advancing environmental law and mobilizing French society.
- **To improve day-to-day life for French people** by developing

clean mobility, eradicating energy insecurity, promoting responsible consumption and strengthening the circular economy.

- **To be done with fossil fuels and commit to carbon neutrality by producing carbon-free electricity**, halting fossil fuel extraction, increasing carbon prices, achieving carbon neutrality by 2050 and eliminating the sale of vehicles that use fossil fuels by 2040.
- **Making France the number one green economy** by designing forward-thinking solutions through research and making Paris the capital of green finance.

- **Harnessing the potential of ecosystems and agriculture** by mobilizing agriculture to combat climate change, adapting to climate change and its consequences and putting a stop to imports of products that contribute to deforestation.

- **Strengthening international mobilization** by supporting non-government bodies committed to climate action and helping developing countries combat climate change.

Source: www.gouvernement.fr/action/plan-climat

Ecology at the heart of the “Relaunch France” plan

Backed by €100 billion, the “Relaunch France” plan is making ecological transition a strategic target, devoting €30 billion (€11 billion for transport, €9 billion for industry-energy, €7.5 billion for the thermal renovation of buildings and housing, plus €1.2 billion for agriculture) to green investments.

Everything set up in the framework of the “Relaunch France” plan must meet the ambition of making France

the leading carbon-free economy in Europe, meeting carbon neutrality by 2050. It will promote sustainable and fair growth through:

- The thermal renovation of buildings.
- Aid for industry to become carbon-free.
- The renewal of the vehicle fleets.
- Transformation of the agricultural sector.

This plan reflects France's desire to make the choice of sustainable and fair growth, with growth that uses natural resources, emits less CO₂ and protects biodiversity. The “Relaunch France” plan also supports research and innovation for the development of green technology.



Publication Director

Christophe Lecourtier, CEO

Chief Editor

Sylvie Montout

Contributors

Habib Karamoko

Departments of the French
Treasury Directorate
Coordinated by the Foreign
Trade and Country Risk Office

Translation

David Williams

Peter Stewart

Editorial coordination

Guillaume du Rivau,
Publishing Project Manager

Design and layout

HOPSCOTCH

December 2020







BUSINESS FRANCE IS THE NATIONAL AGENCY SUPPORTING THE INTERNATIONAL DEVELOPMENT OF THE FRENCH ECONOMY, responsible for fostering export growth by French businesses, as well as promoting and facilitating international investment in France.

It promotes France's companies, business image and nationwide attractiveness as an investment location, and also runs the VIE international internship program.

Business France has 1,500 personnel, both in France and in 58 countries throughout the world, who work with a network of partners.

Since January 2019, as part of the reform of the state support system for exports, Business France has given private partners responsibility for supporting French SMEs and mid-size companies in the following markets: Belgium, Hungary, Morocco, Norway, the Philippines and Singapore.

For further information, please visit:
www.businessfrance.fr @businessfrance

BUSINESS FRANCE

77, boulevard Saint-Jacques
75680 Paris Cedex 14
Tel: +33 1 40 73 30 00

In partnership with
The French Treasury Directorate
The French Ministry for the Economy and Finance

The French Treasury Directorate serves government ministers, making proposals and carrying out economic policy under their authority from a domestic, European and international standpoint.

It has 1,400 employees, of whom nearly half are based abroad. Economic departments abroad support the international strategies of French businesses, help boost France's economic attractiveness, promote ongoing reforms and the government's economic policy.

Trésor
DIRECTION GÉNÉRALE

www.tresor.economie.gouv.fr