Twenty years of growth in France’s trade in services

Trade in services is playing an increasingly important role in French foreign trade. Between 2000 and 2019, it grew by 156%, twice as fast as trade in goods (+75%) or GDP (+64%). It also generated an average annual surplus of over EUR 20 billion. The nature of the services traded has also changed: the share of business services, which take place upstream (research and development, trade in intellectual property) or during the production process (consultancy, IT services), increased (from 65% to 78%), to the detriment of services to final consumers (travel, leisure).

The health crisis has strongly affected trade in services. French exports dropped by 16% in 2020, and imports by 14%, leading to a EUR 16 billion surplus, down from EUR 24 billion in 2019.

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Balance of Payments Directorate
Synthesis Division

JEL codes
F13, F14, F26

Comparative changes in France’s trade (exports and imports) in goods and services and in GDP
(current prices, 100 = 2000)

Sources: Banque de France, balance of payments; INSEE, national accounts.
The technological advances in information and telecommunications, and the efforts made to liberalise service sectors worldwide, have greatly increased the amount of tradable activities across national borders. In addition, since the conclusion of the Uruguay Round\(^1\) in 1994, trade in services has benefited, like trade in goods,\(^2\) from the General Agreement on Trade in Services (GATS), aimed at facilitating international trade.

Over the past twenty years, France has taken full advantage of this new situation by intensifying its trade in services with the rest of the world and by integrating itself into global value chains. The share of tourism flows has decreased, and French companies have stepped up their imports and exports of business services. In addition, trade in services has generated a trade surplus for France over the entire period.

In 2020, the Covid-19 pandemic and the health measures that accompanied it had a strong impact on international trade in services. However, thanks to the structure of French exports, the extent of their decline relative to the European countries most dependent on international tourism was limited.

**1 Non-travel services were key drivers of France’s foreign trade growth between 2000 and 2019**

Trade in services\(^3\) is playing an increasing role in French foreign trade. Between 2000 and 2019, it grew by 156\% (see Chart 1), twice as fast as trade in goods (up by 75\%) or GDP (up by 64\%) over the same period,\(^4\) and it exceeded EUR 500 billion in 2019. It generated an average annual trade surplus of over EUR 20 billion over this period, reaching up to EUR 30 billion in 2012 and 2013 (and EUR 24 billion in 2019).

Travel services, which record exports and imports resulting from international tourism, are a strong component of trade in services, with annual surpluses between EUR 10 billion and EUR 15 billion prior to the crisis. However, their weight is tending to decrease. While they accounted for a third of trade in services at the beginning of the 2000s (35\% of exports and 27\% of imports), they only represented a fifth in 2019 (21\% of exports and 19\% of imports). In addition, while the surplus of other service categories has grown steadily over the past 20 years, the travel surplus has deteriorated since 2013.\(^5\) Hence, in 2019, the surplus of non-travel services (EUR 12.4 billion) exceeded that of travel services (EUR 11.6 billion – see Chart 2).

This growing share of non-travel services also concerns the countries of the Organisation for Economic Co-operation and Development (OECD). They accounted for 20\% of OECD foreign trade in 2019, compared with only 15\% in 2000. In 2019, they represented 25\% in France, compared with

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\(^1\) Round of negotiations that began in 1986 in Uruguay under the General Agreement on Tariffs and Trade (GATT). These negotiations gave birth to the World Trade Organization (WTO) and paved the way for the implementation of trade agreements in new areas, such as trade in services.

\(^2\) The 1947 General Agreement on Tariffs and Trade (GATT).

\(^3\) Exports and imports.

\(^4\) The apparent elasticity of trade to gross domestic product (GDP), which is calculated by relating trade growth to GDP growth, is thus greater than 1 (1.47); it is largely driven by trade in services (elasticity of 2.4, compared with 1.2 for goods).

\(^5\) This deterioration can be explained by a slowdown in exports (spending by foreign visitors to France), in particular in the postterrorist attack context after 2015, and by sustained growth in imports (spending by French visitors abroad).
Twenty years of growth in France’s trade in services

After stagnating, or even declining in the case of exports, the EU’s share of this trade has increased since 2010, following the gradual implementation of the European Services Directive. Thus, in 2019, the EU accounted for 56% of exports and 66% of imports, compared with 54% and 59% respectively in 2000 (see Chart 3). Nevertheless, for the past 20 years, trade with the EU has recorded a systematic deficit, which has tended to grow to reach EUR 14 billion in 2020, while the surplus with non-EU countries has increased to EUR 26 billion.

The United States, Germany and the United Kingdom are France’s leading trade partners for non-travel services (see Chart 4 below). The United States is France’s largest customer (EUR 25 billion in 2019). In particular, it accounts for almost one-fifth of French exports related to intellectual property and research and development (R&D). The United Kingdom is France’s leading trade partner for financial services, both for exports and, even more importantly, for imports. Germany is the leading supplier of non-travel services (EUR 27 billion in 2019), accounting for almost one-third of France’s imports of intellectual property and R&D.

20% in the United States, for example, and about 15% in Germany, Spain or Italy. However, the share of non-travel services was higher in the United Kingdom (32%), and even higher in Ireland and Luxembourg, due in particular to the specialisation of these countries in financial services and the service activities of multinationals.

As in the case of trade in goods, France’s trade in non-travel services is mostly with European Union (EU) countries, including the United Kingdom.

C2 France’s balance of trade in services

(EUR billions)

Source: Banque de France, balance of payments.


Intellectual property remuneration covers the costs of using non-produced non-financial intangible assets and property rights, as well as the use of computer software and audiovisual products. Research and development (R&D) services consist of services related to research (fundamental and applied) and the development of new products and processes.

C3 Share of the European Union in France’s trade and balance of services excluding travel

(lhs: in %; rhs: in EUR billions)

Source: Banque de France, balance of payments.
Note: The European Union (EU) is considered at constant composition, before Brexit.
These three countries already dominated trade in non-travel services in 2013. However, certain changes are worth highlighting. As regards charges for the use of intellectual property, the share of imports from the United States has dropped sharply, from 30% in 2013 to 15% in 2019, mainly to the benefit of Germany. In telecommunications, computer and information services, the share of imports from Ireland has risen markedly, from 10% to 18%, in line with multinationals’ location strategies for setting up their activities. Finally, in financial services, Luxembourg’s share of exports increased from 11% to 17%, reflecting its major role in financial services within the euro area.

2 The evolution of France’s trade in services reflects the internationalisation of value chains

The overall evolution of France’s services trade structure is indicative of globalisation and, in particular, the internationalisation of value chains (Castor et al., 2016), which has been further reinforced by greater outsourcing of services tasks by manufacturing firms. The fall in trade costs, particularly for trade in services,
has enabled this internationalisation and has allowed more firms to participate in international trade. Internationalisation has also been driven by technological advances (e.g., roll-out of Internet) and regulatory changes (e.g., liberalisation of the telecommunications sector). Multinationals have also implemented global tax optimisation strategies, which affect the intensity and geography of trade in services. 8

Thus, between 2000 and 2019, the share of trade in business services, which occur upstream of production (R&D, trade in intellectual property) or during the production process (consulting, IT services), increased (from 65% to 78% respectively – see Chart 5) to the detriment of services downstream of production aimed at final consumers. More specifically:

- **upstream of the production process**, trade in services related to charges for the use of intellectual property and R&D reflects the international diffusion of “intangible” assets (knowledge, brands, processes, etc.) which are central to wealth creation. It accounted for 10.3% of trade in services in 2019, up from 8.7% in 2000;

- the share of trade in **services contributing to production** rose from 24% to 34%. As part of global assembly chains, trade in services associated with the production of goods (manufacturing, repair and construction services) were up by 4.6 percentage points, with an increase in both exports (from EUR 4 billion to EUR 22 billion) and imports (from EUR 4 billion to EUR 20 billion). The share of business support services – which include both administrative services (legal advice, accounting) and scientific and technical services (engineering, architecture) – rose by 4.8 percentage points, with exports and imports climbing by EUR 46 billion and EUR 45 billion respectively;

- **auxiliary services**, which support the production process, play a historically key role in globalisation by facilitating trade across space (transportation, telecommunications) and time (financing, insurance). Although their share of trade in services has remained stable (33%), they show mixed developments. **Financial and insurance services** increased by 3.5 percentage points and represented 6.8% of trade in services with the rest of the world in 2019. Their contribution to the balance of trade in services turned from a negative EUR 0.6 billion in 2000 to a positive EUR 4.1 billion in 2019. 10 Trade related to **information and communication technologies (ICT)** also increased by 1 percentage point. In contrast, the weight of **transport activities** 11 dropped sharply, from 22% to 18% over the same period. This decrease can largely be explained by the fall in international transport costs. 12 It thus reflects the general decline

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8 In particular, intellectual property remuneration, financial, administrative, information and maritime transport services (Habous and Johannesen, 2021). 9 Manufacturing services correspond to industrial outsourcing operations (processing, transformation, assembly, labeling, packaging, etc.), carried out by firms that do not own the goods concerned. 10 Financial intermediation services that are indirectly measured are excluded as they are only measured from 2012 onwards. 11 Transport here includes both passenger and freight transport. 12 The explanations are both technological (more efficient ports, faster ships, etc.) and regulatory (opening up to competition). See WTO, 2008; Hummels, 2007.
In the share of transport in the global trade in services (from 26% in 2000 to 17% in 2019);

- Finally, the share in trade of services **downstream of production**, aimed solely or mainly at final consumers, declined. These services accounted for 35% of trade in services in 2000, compared with 22% in 2019. As regards travel services (which make up the bulk of these services), while this decline is also observed in all OECD countries, it is nevertheless more pronounced in France due to losses of export market shares.

In addition, while services downstream of production still accounted for the largest surplus in trade in services in 2019, thanks to the travel surplus (EUR 11 billion – see Chart 6), services contributing to production recorded a similar sized surplus (EUR 10 billion). The surplus on services upstream of production was more modest (EUR 2 billion), with a negative EUR 1 billion balance for R&D services. Auxiliary services were close to balance, due to the negative balance of transport and ICT services, despite the large surplus in financial and insurance services (EUR 8 billion).

**C6 France’s trade in services in 2019**

<table>
<thead>
<tr>
<th>Category</th>
<th>Exports</th>
<th>Balance (rhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial and insurance</td>
<td>4.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Telecommunications, computer, and information services</td>
<td>2.3</td>
<td>1.4</td>
</tr>
<tr>
<td>Transport</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Charges for use of IP and R&amp;D</td>
<td>3.5</td>
<td>-1.0</td>
</tr>
<tr>
<td>Other</td>
<td>2.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Travel</td>
<td>6.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Professional and management consulting services</td>
<td>1.5</td>
<td>-0.5</td>
</tr>
<tr>
<td>Technical, trade-related and other business services</td>
<td>3.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Manufacturing, repair and construction services</td>
<td>2.0</td>
<td>-1.0</td>
</tr>
</tbody>
</table>

**Source:** Banque de France, balance of payments.

Notes: The different categories of services are grouped here according to the way in which they are articulated and fit into the production process. The articulation of these groupings with the standard balance of payments presentation is presented in Appendix 1. Financial intermediation services that are indirectly measured are included.

IP: intellectual property; R&D: research and development.
**BOX 2**

**France’s export structure is close to the OECD average**

In 2019, France was the world’s fourth largest exporter of services, behind the United States, the United Kingdom and Germany (see Chart a). Its share in the exports of the top 20 countries has tended to decline: it slipped from 7.9% in 2005 to 6.7% on the eve of the global health crisis. Faced with the growth of emerging countries (in particular, China and India) and specialised economies (Ireland, Singapore, Luxembourg), France is nevertheless holding up better than the United Kingdom, Italy and Spain, but do worse than Germany.

In addition, France’s export structure shows a supply of services close to the average export structure of all Organisation for Economic Co-operation and Development (OECD) countries. Using a similarity index measuring differences in a country’s export structure compared to all OECD countries for 14 service categories, France scores the highest of all OECD countries over the 2017-19 period, just ahead of Germany (see Chart b). The United Kingdom, Italy and Belgium are in an intermediate position, while Luxembourg appears to be the most “specialised” country, mainly on account of the large share of financial services in its exports (56%, compared with 11% on average), ahead of Australia (where two-thirds of its service exports are travel) and Ireland (specialised in computer services, which contribute to half of its service exports).

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**Ca  Market shares of the main European countries in service exports in 2019**

(as a % of total exports of the top 20 exporting countries)

![Market shares of the main European countries in service exports in 2019](chart)

Source: International Monetary Fund (IMF).

**Cb  Structure of service exports in 2019: similarity index of OECD countries compared to the OECD average**

![Structure of service exports in 2019: similarity index of OECD countries compared to the OECD average](chart)

Sources: OECD; Banque de France, balance of payments; authors’ calculations.

Note: The similarity index we calculate aims at describing the extent to which a country’s services export structure deviates from the average of Organisation for Economic Co-operation and Development (OECD) countries. The higher the index, the closer the structure of service exports is to the OECD average. See Appendix 2.
However, compared with other OECD countries, French service exports appear to be more strongly oriented toward “intermediate” services, related to the production of goods (manufacturing and repair services) and focused on technical services (especially scientific and engineering services and services linked to extractive industries – see Chart c).

Cc Structure of service exports in 2019: specialisation of French exports

![Chart](chart.png)

Sources: OECD; Banque de France, balance of payments; authors’ calculations.

Notes: The similarity index we calculate aims at describing the extent to which a country’s services export structure deviates from the average of Organisation for Economic Co-operation and Development (OECD) countries. The higher the index, the closer the structure of service exports is to the OECD average. See Appendix 2.

IP, intellectual property; R&D, research and development.

3 French service exports have held up better than those of other countries highly dependent on international tourism

The global Covid-19 health crisis has had a strong impact on international trade in services. In 2020, France’s exports thus fell by 16%, and imports by 14%, resulting in a surplus of EUR 16 billion, compared with EUR 24 billion in 2019.13

However, not all categories of services have been equally impacted by the crisis (see Chart 7).

C7 France’s trade in services: changes by category of services between 2019 and 2020

![Chart](chart2.png)

Source: Banque de France, balance of payments.

Note: IP, intellectual property; R&D, research and development.

13 By way of comparison, exports of goods fell by 17% and imports by 14%. GDP in value terms dropped by 6.1%.
Due to restrictions on travel and non-essential activities, international travel has suffered the most, with revenues shrinking by 50% from EUR 57 billion to EUR 29 billion euros and expenditures dropping by 46% from EUR 45 billion to EUR 24 billion. Paradoxically, trade in transport services has been less affected by the health measures. Exports fell by only 11% and imports by 13%. The sharp decline in passenger transport, with exports and imports plunging by 55% and 63% respectively, was mitigated by the relatively good performance of freight transport, which recorded a 5% decline in imports and a 7% rise in exports, despite the fall in the goods trade. This can notably be explained by the increase in maritime freight rates, caused by local shortages of empty containers, and in a context of disrupted goods flows (UNCTAD, 2021; Banque de France, 2021).

For our European neighbours, 2020 was also characterised by a historic decline in service exports compared to 2019. Countries heavily dependent on international tourism were the most affected. Total service exports thus dropped by around 40% in Spain, Greece and Portugal, and by 30% in Italy. Conversely, countries whose exports are oriented towards activities less affected by the health measures (finance and insurance, IT and telecommunications, business services) fared better. In Luxembourg, Belgium and the Netherlands, exports declined by less than 10%, and in Ireland, service exports even increased by 4%. These developments probably reflect cash flow movements within multinational companies that had become necessary as a result of the crisis.

In the case of France, the specialisation of service exports (considered in relation to the other European countries providing a detailed breakdown to Eurostat) has rather contributed to worsening their decline, but to a relatively limited extent. This specialisation adds 3 percentage points to the –14% shock common to all countries (compared with 12 points in Italy and 19 in Portugal). The relative specialisation in travel – which has been strongly affected by the crisis – and the under-weighting of telecommunications, computer and information services – which have been little affected – are the main underlying factors (with 1.6 and 1.5 percentage points respectively – see Appendix 2).

The decline in France’s service exports has nevertheless been somewhat mitigated, relative to the European average, by less unfavorable developments in certain categories (residual component of +1 point). The fall in travel exports, for example, although spectacular, has been somewhat more limited in France than in other European countries. Similarly, exports of transport services and technical services to businesses have deteriorated less in France than elsewhere in Europe. Conversely, exports of services related to charges for the use of intellectual property and R&D have posted a sharper decrease.

### Changes in service exports of European countries between 2019 and 2020:

<table>
<thead>
<tr>
<th>Country</th>
<th>Common component</th>
<th>Sectoral specialisation component</th>
<th>Residual component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portugal</td>
<td>-37</td>
<td>-14</td>
<td>-19</td>
</tr>
<tr>
<td>Italy</td>
<td>-30</td>
<td>-14</td>
<td>-12</td>
</tr>
<tr>
<td>Austria</td>
<td>-17</td>
<td>-14</td>
<td>-8</td>
</tr>
<tr>
<td>France</td>
<td>-16</td>
<td>-14</td>
<td>-3</td>
</tr>
<tr>
<td>Germany</td>
<td>-14</td>
<td>-14</td>
<td>3</td>
</tr>
<tr>
<td>Netherlands</td>
<td>-10</td>
<td>-14</td>
<td>3</td>
</tr>
<tr>
<td>Belgium</td>
<td>-7</td>
<td>-14</td>
<td>5</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>-4</td>
<td>-14</td>
<td>11</td>
</tr>
<tr>
<td>Ireland</td>
<td>4</td>
<td>-14</td>
<td>14</td>
</tr>
</tbody>
</table>

Sources: Eurostat; Banque de France, balance of payments; authors’ calculations.

Note: The calculation of the breakdown is detailed in Appendix 2.
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Hummels (D.) (2007)

UNCTAD (2021)

WTO (2008)
### Nomenclature of trade in services

The analyses in this article are based on decompositions and recompositions of the service categories of the standard balance of payments presentation (see the sixth edition of the IMF’s *Balance of Payments and International Investment Position Manual*, in particular Appendix 9), starting from 11 first-level standard components and 3 second-level sub-categories that correspond to the sub-heading “other business services”.

Depending on needs and available data, these analyses are based on a more or less detailed breakdown of service categories (see table).

<table>
<thead>
<tr>
<th>Breakdown of service categories</th>
<th>Fine</th>
<th>Intermediate</th>
<th>Summary presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charges for use of intellectual property not included elsewhere</td>
<td>Charges for use of intellectual property and research and development</td>
<td>Services upstream of production</td>
<td></td>
</tr>
<tr>
<td>Research and development services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical, trade-related and other business services</td>
<td>Technical, trade-related and other business services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional and management consulting services</td>
<td>Professional and management consulting services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing services on physical inputs owned by others</td>
<td>Manufacturing, repair and construction services</td>
<td>Services related to production</td>
<td></td>
</tr>
<tr>
<td>Maintenance and repair services not included elsewhere</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td>Transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telecommunications, computer, and information services</td>
<td>Telecommunications, computer, and information services</td>
<td>Auxiliary services</td>
<td></td>
</tr>
<tr>
<td>Insurance and pension services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial services</td>
<td>Financial and insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td>Travel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal, cultural, and recreational services</td>
<td>Other</td>
<td>Services downstream of production</td>
<td></td>
</tr>
<tr>
<td>Government goods and services not included elsewhere</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Twenty years of growth in France’s trade in services
Appendix 2
Detail of the calculations

Index of “similarity” of the service export structure to the average exports of OECD countries (Chart 8)

The similarity index we calculate aims at describing the extent to which a country’s services export structure deviates from the OECD average. The higher the index, the closer the services export structure is to the average exports of OECD countries.

More precisely, it is calculated using the square of the differences between, on the one hand, the export structure by category of services of a particular country and, on the other, the export structure by category of services of the OECD as a whole, by applying the formula:

\[ 1 - \sqrt{\sum_k \left( \frac{S(k, j)}{S(+, j)} - \frac{S(k, +_k)}{S(+, +_k)} \right)^2} \]

Where \( S \) denotes the amount of exports, associated with a category \( k \) and a country \( j \); \( k \) denotes one of the 14 service categories used in the calculation; + indicates a summation over all 14 service categories; and +\( _k \) indicates a summation over all OECD countries that provide information on service category \( k \) in the OECD ITS database over the period 2017-19.

The 14 service categories used correspond to 11 first-level categories of the EBOPS nomenclature, and the three subcategories of “Other business services” (see Appendix 1).

Each term of the index is summed over 2017, 2018 and 2019, in order to smooth out any atypical variations.

Index of “specialisation” in the structure of France’s service exports compared to the average exports of OECD countries (Chart 9)

The specialisation index that we calculate aims at determining for which categories of services the structure of France’s service exports deviates from the average of OECD countries, and in what direction (over-weighting or under-weighting). An index greater than 0 indicates a weight in French service exports greater than the weight in the OECD average.

More precisely, the specialisation indices are calculated by comparing the weight of each service category in France’s service exports with the weight that this service category represents in the average exports of OECD countries, i.e:

\[ \frac{S(k, FR)}{S(+, FR)} \cdot \frac{S(k, +_k)}{S(+, +_k)} - 1 \]

The above-mentioned notations are used.

Each term of the index is summed over the years 2017, 2018 and 2019, in order to smooth out any atypical variations.

Breakdown of the 2020/2019 evolution of service exports (table)

The breakdown of the 2020/2019 evolution of service exports aims at measuring the extent to which the more or less significant declines recorded by European countries can be explained by the export structure before the crisis. It identifies three additive components:

- the common component (1) corresponds to the average evolution for all the countries in the sample and all the service categories;
- the sectoral specialisation component (2) corresponds to a country’s own evolution linked to the over-weighting or under-weighting of certain service categories which, on average in the sample, show a different evolution from that of all services;
• the residual component (3) is linked to the country-specific evolutions in service categories compared to the sample average for each category. It includes by construction a component of geographic exposure to more or less dynamic markets and a component of competitiveness.

More precisely, the breakdown of the evolution of service exports is based on the formula:

\[
\tau_i = \tau + \sum_k (\tau_k - \tau) (\pi_{i,k} - \pi_k) + \sum_k (\tau_{i,k} - \tau_k) \pi_{i,k}
\]

Where \( \tau \) denote growth rates between 2020 and 2019 and \( \pi \) market shares in 2019; \( i \) index countries and \( k \) service categories.

The sample consists of all European countries providing a detailed breakdown of trade in services to Eurostat. The main countries not covered are Spain, Switzerland, and the United Kingdom. The breakdown of trade in services by category for a sample of European countries in 2019 is given in the table below.

Details of the contributions of the different service categories to the “sectoral specialisation” and “residual” components for France are given in charts CA1 and CA2 below.

### Breakdown of trade in services by category in 2019

<table>
<thead>
<tr>
<th>Service category</th>
<th>Austria</th>
<th>Belgium</th>
<th>Germany</th>
<th>France</th>
<th>Ireland</th>
<th>Italy</th>
<th>Luxembourg</th>
<th>Netherlands</th>
<th>Portugal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel</td>
<td>30.1</td>
<td>7.3</td>
<td>11.9</td>
<td>21.4</td>
<td>2.6</td>
<td>40.6</td>
<td>5.1</td>
<td>9.1</td>
<td>51.3</td>
</tr>
<tr>
<td>Transport</td>
<td>23.5</td>
<td>20.5</td>
<td>19.8</td>
<td>16.1</td>
<td>3.6</td>
<td>12.4</td>
<td>5.0</td>
<td>20</td>
<td>21.2</td>
</tr>
<tr>
<td>Technical, trade-related and other business services</td>
<td>13.2</td>
<td>7.5</td>
<td>10.7</td>
<td>16.6</td>
<td>16.5</td>
<td>14.2</td>
<td>13.2</td>
<td>23.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Manufacturing, repair and construction services</td>
<td>4.8</td>
<td>6.9</td>
<td>7.3</td>
<td>8.4</td>
<td>1.2</td>
<td>6.4</td>
<td>0.5</td>
<td>7.0</td>
<td>5.4</td>
</tr>
<tr>
<td>Professional and management consulting services</td>
<td>5.8</td>
<td>24.8</td>
<td>9.6</td>
<td>9.7</td>
<td>1.0</td>
<td>4.6</td>
<td>8.3</td>
<td>4.0</td>
<td>3.2</td>
</tr>
<tr>
<td>Other</td>
<td>1.7</td>
<td>3.3</td>
<td>2.3</td>
<td>1.7</td>
<td>0.3</td>
<td>0.8</td>
<td>4.2</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Charges for the use of IP and R&amp;D</td>
<td>5.8</td>
<td>7.9</td>
<td>17.9</td>
<td>10.1</td>
<td>7.1</td>
<td>6.7</td>
<td>3.3</td>
<td>22.9</td>
<td>1.0</td>
</tr>
<tr>
<td>Financial and insurance</td>
<td>4.2</td>
<td>9.4</td>
<td>11.1</td>
<td>9.2</td>
<td>12.1</td>
<td>6.8</td>
<td>56.6</td>
<td>3.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Telecommunications, computer and information services</td>
<td>11</td>
<td>11.5</td>
<td>9.6</td>
<td>6.7</td>
<td>53</td>
<td>7.3</td>
<td>3.8</td>
<td>9.1</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Sources: Eurostat; Banque de France, balance of payments; authors’ calculations.
Notes: The calculation of the breakdown is detailed in Appendix 2 above.
IP, intellectual property; R&D, research and development.
CA1 Contributions to the “sectoral specialisation” component for France

<table>
<thead>
<tr>
<th>Financial and insurance</th>
<th>Telecommunications, computer, and information services</th>
<th>Transport</th>
<th>Charges for use of IP and R&amp;D</th>
<th>Other</th>
<th>Travel</th>
<th>Professional and management consulting services</th>
<th>Technical, trade-related and other business services</th>
<th>Manufacturing, repair and construction services</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0.5</td>
<td>0.0</td>
<td>0.0</td>
<td>-0.0</td>
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<td>0.0</td>
<td>0.0</td>
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<td>0.0</td>
</tr>
</tbody>
</table>

Sources: Eurostat; Banque de France, balance of payments; authors’ calculations.

Notes: The calculation of the breakdown is detailed in Appendix 2, above.

CA2 Contributions to the “residual” component for France

<table>
<thead>
<tr>
<th>Financial and insurance</th>
<th>Telecommunications, computer, and information services</th>
<th>Transport</th>
<th>Charges for use of IP and R&amp;D</th>
<th>Other</th>
<th>Travel</th>
<th>Professional and management consulting services</th>
<th>Technical, trade-related and other business services</th>
<th>Manufacturing, repair and construction services</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1.5</td>
<td>1.0</td>
<td>0.0</td>
<td>-0.5</td>
<td>0.0</td>
<td>0.0</td>
<td>1.0</td>
<td>0.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Sources: Eurostat; Banque de France, balance of payments; authors’ calculations.

Notes: The calculation of the breakdown is detailed in Appendix 2, above.

IP, intellectual property. R&D, research and development.