



INTERNATIONAL DIGITAL TRADE AND THE FRENCH FINAL CONSUMER

EVIDENCE FROM CREDIT CARD PAYMENT DATA

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DIRECTION DE LA BALANCE DES PAIEMENTS



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INTRODUCTION



INTRODUCTION

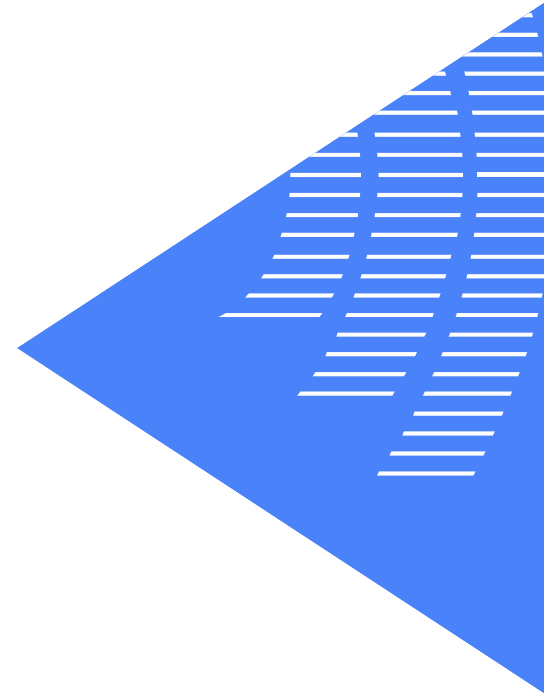
- Since the 2000's, the ongoing digitization of the economy has enabled a massive increase in types of services and goods transactions (e.g. streaming services, mobile apps) thanks to the deployment of new technologies to bring producers and consumers together (high-speed internet, digital intermediation platforms...).
- This phenomena is not well documented and its consequences still poorly understood.
- On the one hand, these years coincide with the emergence of GAFAM and the massive use of their services around the world, but also with a slowdown in the process of globalisation as traditionally measured:
 - 2008 for goods by Baldwin (2022) ;
 - 2015 for intermediate services in France according to Lavenant (2023).
- **To what extent can the inclusion of international digital trade reconcile these two trends?**

INTRODUCTION

- We are exploring a new database of credit card payments in France.
- This database measures the direct participation of French consumers via their digital imports of goods and services:
 - Imports: online payments for a good or service by bank card from a customer of a bank domiciled in France to a payment terminal located outside France.
- We highlight several stylised facts:
 - Digital imports = approx. 5% of imports and 1/3 of total digital consumption;
 - Digital import flows have a different sectoral composition to total digital consumption;
 - Digital import flows have a different geographical composition to import flows as measured in the balance of payments.

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DATA

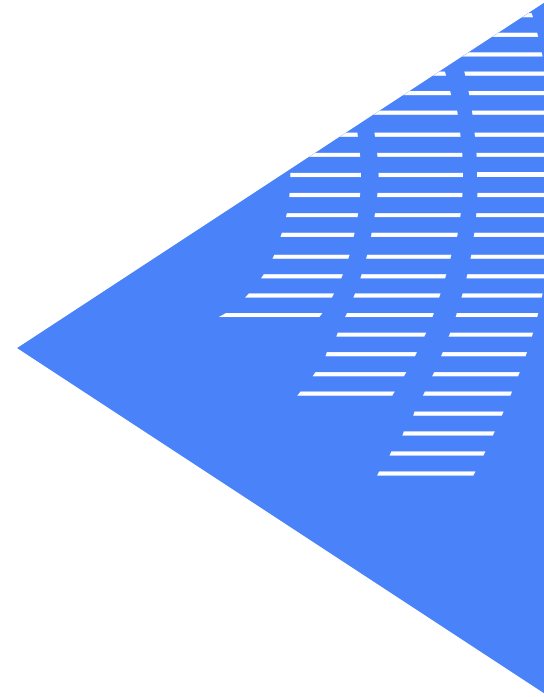


DATA

- The new statistic is based on the data collected in virtue of the Regulation (EU) 2020/2011 of the European Central Bank on payment statistics, and is the result of quarterly data collection by the Banque de France :
 - Reporting bank * country * sector * quarter * value ;
 - Approximately 2.2 million observations in 2022 ;
 - 215 countries: not just the country of the website but a real economic presence (including France);
 - 308 sectors based on the good or service that constitutes the majority of the merchant's sales; 193 reporting banks, including foreign subsidiaries in France.
- This study focuses only on sector codes not linked to business-to-business trade (advertising, wholesalers, etc.) thanks to a bridging table.
- Matching with imports recorded in the balance of payments, aggregated into 4 sub-categories :
 - Goods = G ;
 - Physical services = SA + SB + SC + SD + SE ;
 - Digital services = SH + SI + SJ + SK ;
 - Financial services = SF + SG.

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STYLIZED FACTS



DIGITAL TRADE AS A PERCENTAGE OF FRENCH IMPORTS

- Household digital imports account for a substantial proportion of French imports as measured by the balance of payments (5.3%, or 2.2% of GDP).
- Around 17 transactions per French person, for an average transaction of €51.
- Physical services are the first item of expenditure imported online. It should be noted that these services are ordered digitally on foreign internet platforms, but are in part performed physically in France. This is equivalent to 18.1% of imports of physical services recorded in the Balance of Payments. (e.g. Booking, Uber, etc.)

	(1) Value (€ Md.)	(2) Transaction (Mn.)	(3) Value per transaction (€)	(4) Share (%)	(5) Penetration rate (%)	(6) Share of digital consumption (%)
Goods	14,99	280,88	53,39	27,83	21,78	1,99
Physical services	21,97	317,71	69,15	40,77	36,48	18,13
Digital services	11,07	420,32	26,35	20,55	30,48	8,49
Financial services	5,85	39,04	149,73	10,85	34,02	27,87
Total	53,88	1057,94	50,93	100	29,51	5,25

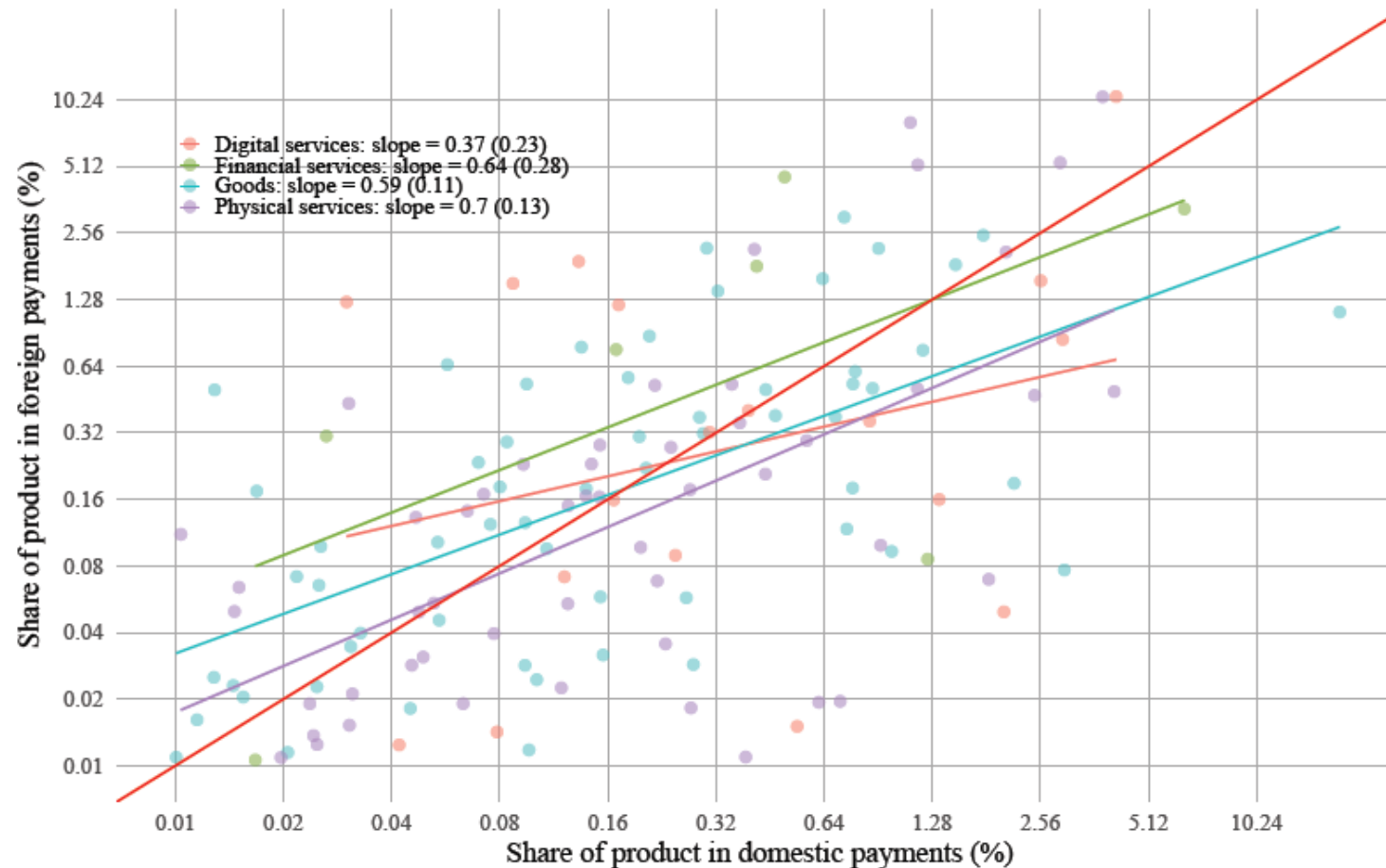
SHARE OF IMPORTS IN DIGITAL CONSUMPTION

- The penetration rate of imports in online payments is 29.5%:
 - Imports recorded in the balance of payments include products that are inaccessible online by a final consumer (raw materials, energy, intermediate goods, etc.) ;
 - This fact is also consistent with the empirical results of Dolfen & al (2023): it is the increase in the variety available rather than the reduction in the cost of physical travel that is the main motivation for using e-commerce:
 - In the case of goods, for example, only 21.8% of online payments are made abroad;
 - Services delivered physically have the highest penetration rate: 36.5% of payments for physical services are made to foreign suppliers, a category dominated by expenditure on accommodation, catering and transport;
 - Similarly, the penetration rate is 34% for financial services;
 - Finally, digitally delivered services have a penetration rate of 30.5%.

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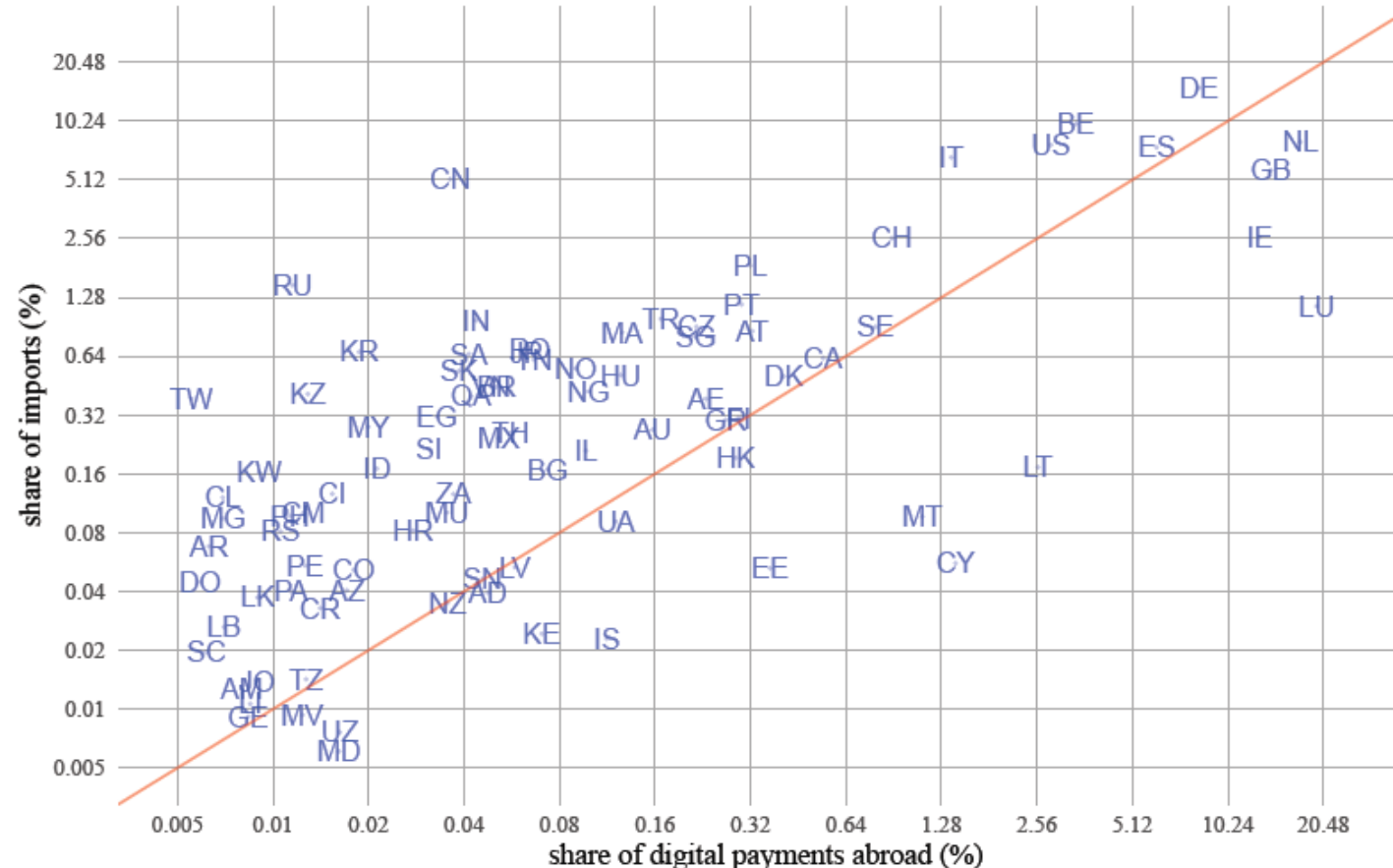
GAP BETWEEN IMPORTED AND DOMESTIC DIGITAL CONSUMPTION

- The relationship between domestic and foreign consumption varies between sector groups :
 - This relationship is weakest for digital services (0.51) and strongest for physical services (0.7), financial services (0.69) and goods (0.63) ;
 - When shopping online, the difference in sector composition between foreign and domestic consumption is greater within digital services than within the other service categories.

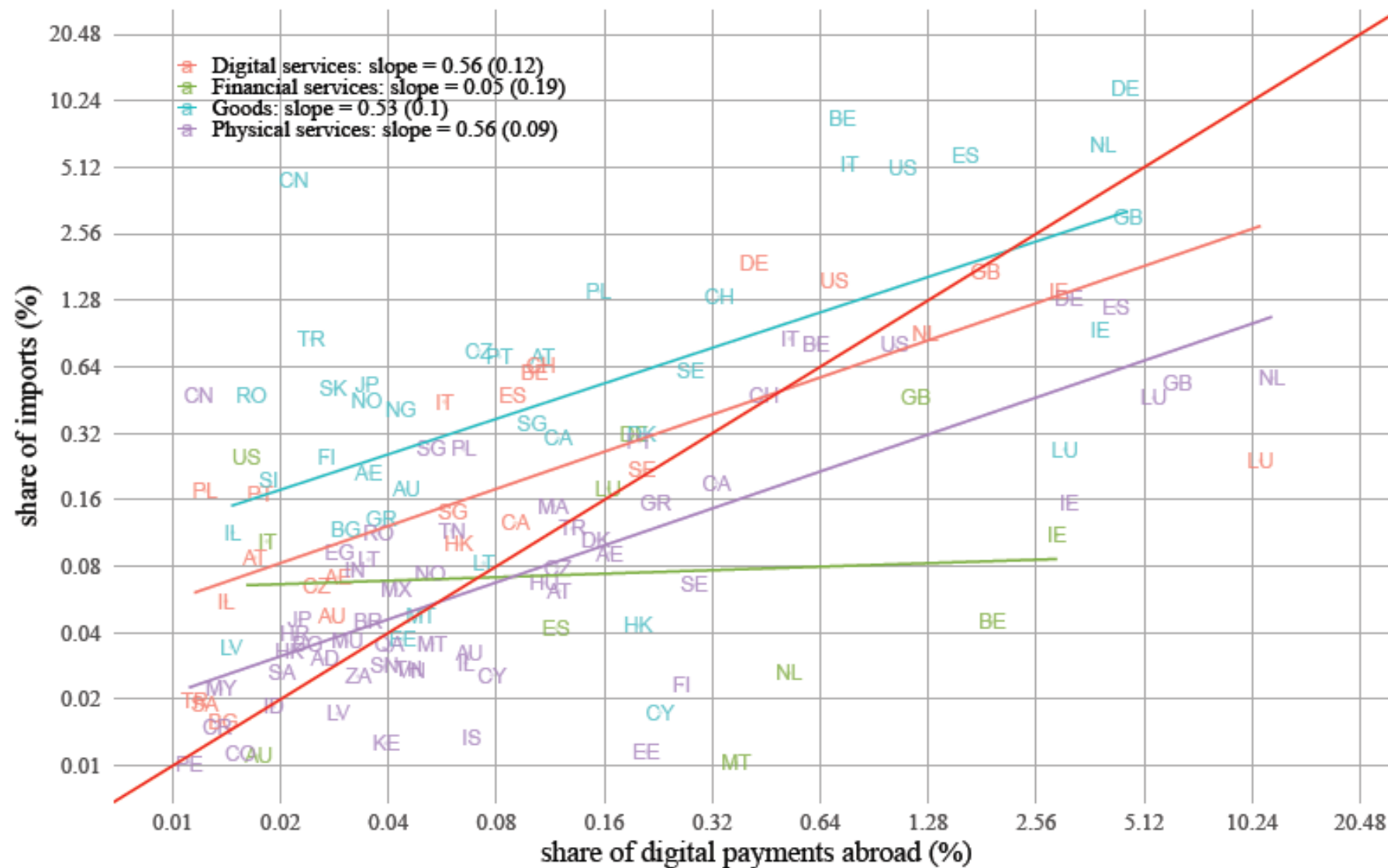


GAP BETWEEN DIGITAL IMPORTS AND BALANCE OF PAYMENTS IMPORTS (1)

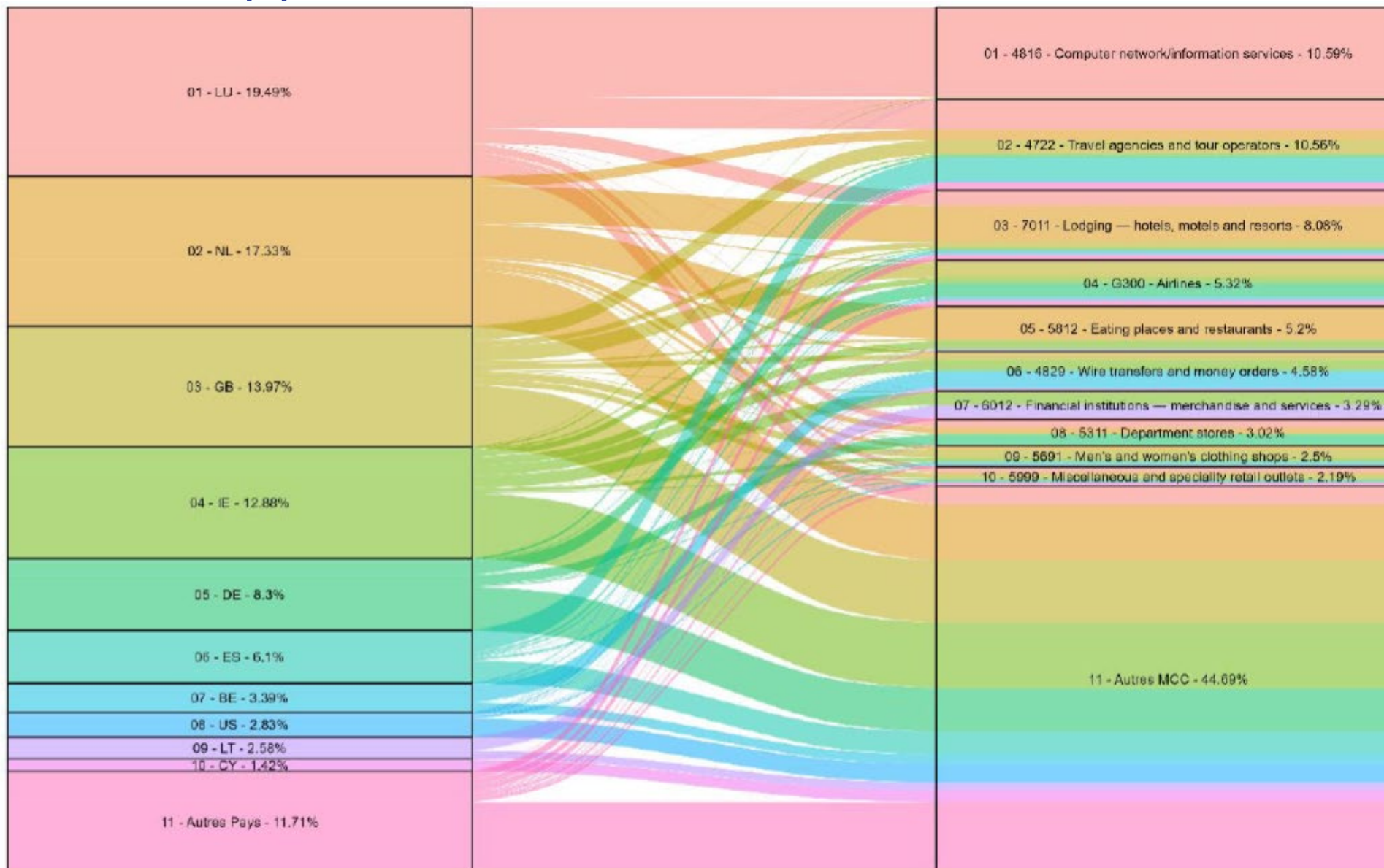
- The geography of flows of traditional goods and services tends to be explained, with empirical regularity, by three main factors: economic weight, distance and isolation. However, there are many deviations from this standard. Most countries are above the red line:
 - The case of China is particularly striking. It ranks 8th among countries of origin and accounts for 5.2% of imports, but represents only 0.03% of digital imports and ranks only 57th.



GAP BETWEEN DIGITAL IMPORTS AND BALANCE OF PAYMENTS IMPORTS (2)



GAP BETWEEN DIGITAL IMPORTS AND BALANCE OF PAYMENTS IMPORTS (3)

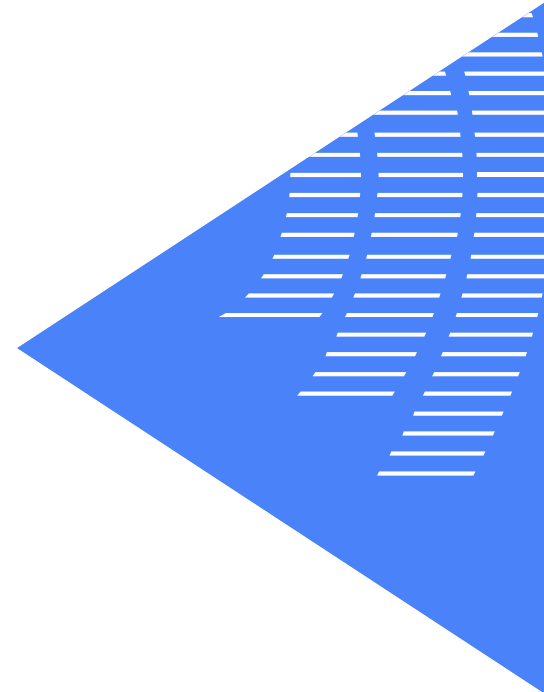


GAP BETWEEN DIGITAL IMPORTS AND BALANCE OF PAYMENTS IMPORTS (4)

- The previous slide shows the top 10 countries (excluding France) and sectors:
 - Digital trade is particularly concentrated geographically ;
 - The top 10 countries account for 88.4% of the total, and the top 4 (Luxembourg, the Netherlands, the UK and Ireland) account for 64%:
 - The identity of these countries illustrates the growing role played by a few financial platforms in the global economy;
 - Luxembourg alone receives 19.5% of international remote payments from the French.
 - The rest of the Top 10 is made up of more traditional trading partners (Germany, Italy, etc.).
- More than half of the amounts paid online (53%) concern just 10 different activities (out of a total of 308):
 - All four major sector categories are represented in this top10 (digital services, financial services, physical services and goods);
 - Physical services account for 53% of this top-10.
- Ultimately, the intersection of the top-10 countries and the top-10 sectors alone accounts for 51.8% of digital consumption abroad:
 - The first sector, '4816 - Computer/information network services', includes website management and the hosting and facilitation of Internet payments;
 - Luxembourg appears to capture virtually all of France's foreign demand for this type of service.

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CONCLUSION



CONCLUSION

- Digital trade is an important phenomenon whose growth is accelerating. Our results show :
 - Household digital imports account for a substantial share of French imports as measured by the balance of payments (5.3%) and of total digital consumption (29%);
 - The imported share of digital consumption is higher for physical services (36%) and financial services (34%) than for digital services (30%) and goods (22%);
 - The sectoral structure of households' cross-border digital trade is only partially correlated with that of domestic digital trade. In particular, the sectoral composition is more polarized for digital services;
 - The geography of digital imports only partially corresponds to that of traditional import flows of goods and services.
 - For example, financial platform countries account for a disproportionate share of payments to the rest of the world compared with traditional trading partners ;
- Finally, the high level of geographical and sectoral concentration of household digital consumption suggests that these international flows are also subject to a phenomenon of granularity.

