

What are the prospects for the foreign trade of France's overseas territories?

The foreign trade of France's overseas territories is atypical due to their regional environment and is characterised by a marked dependence on mainland France, to the detriment of the territories' regional integration. In this bulletin, we use a gravity model to estimate the untapped trade potential of these overseas economies at aggregate and sectoral levels. The results show that Guadeloupe and Martinique could as much as double and triple their exports to the United States, respectively, if they shared the same constraints as their neighbours. The estimates also reveal that French Guiana, Réunion and Martinique could significantly increase their imports from surrounding territories, which could help to combat the high cost of living. Lastly, due to their remoteness, New Caledonia and French Polynesia stand out, with imports from major regional markets closer to their trade potential than other overseas territories.

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60%

the share of the French overseas departments and regions' imports that came from Mainland France between 2013 and 2022

12%

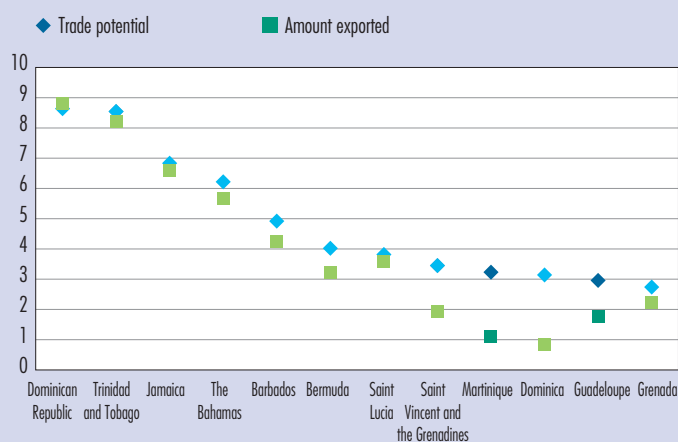
Martinique's exports to the United States amounted to only 12% of its trade potential between 2013 and 2022

+100%

Réunion's agri-food exports could double if its regional trade potential was fully exploited

Amounts exported from the Caribbean to the United States and estimated trade potential in 2021

(log scale in USD millions)



Sources: CEPII (BACI database), French Customs, INSEE; IEDOM-IEOM calculations.

The issue of the high cost of living remains a core concern in the French overseas territories, as the social unrest in Martinique in September 2024 showed. The protesters' demands highlighted a series of structural barriers that constrained the purchasing power and the economy of the overseas territories. One of the levers identified in Martinique's *Protocole de lutte contre la vie chère*¹ (protocol to combat the high cost of living) is the boosting of trade with neighbouring countries. However, this objective necessitates a better understanding of the current situation in the French overseas territories in terms of foreign trade and potential room for improvement.

The aim of this bulletin is to profile the international trade of French overseas economies, compare it with that of their regional environments, and then estimate, using a gravity model, the untapped trade potential of certain sectors or with certain markets.

1 Geography, a major constraint on internationalisation

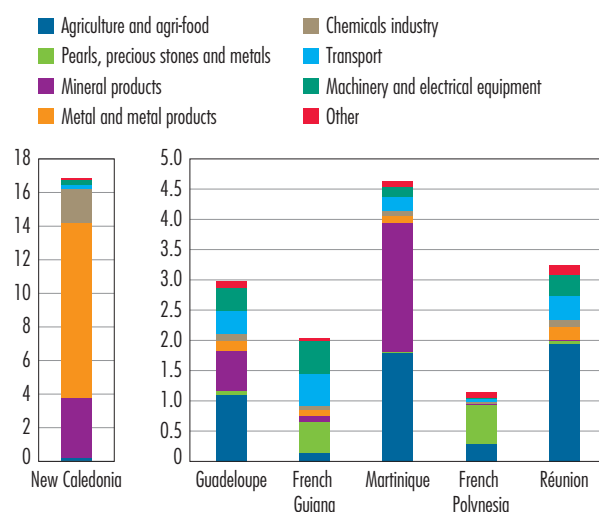
Geographically, the French overseas territories are mostly made up of small island developing states (SIDS),² which face a certain number of common challenges that restrict their access to international markets. SIDS have limited domestic markets that prevent them from exploiting potential economies of scale and thus hamper their ability to develop competitive industrial production. In addition, their geographical remoteness from the world's major economic centres and their poor connections to the main shipping routes act as a barrier to their integration into global value chains.

Like other SIDS, French overseas territories' exports are concentrated on a limited number of products (Chen et al., 2014; and Didier, 2014),³ as shown in

Chart 1. Territories that have an abundance of natural resources focus on those resources. For example, the nickel industry accounts for almost all of New Caledonia's exports and gold makes up a significant proportion of exports from French Guiana. And many economies exploit their comparative advantages in the agricultural and agri-food sectors. For example, sugar cane accounts for 60%, 39% and 37%, respectively of the exports of Réunion, Martinique and Guadeloupe, while the French West Indies export bananas and rum, and more than half of French Polynesia's exports are of cultured pearl farming products. The presence of a refinery in Martinique or storage facilities also explains the mineral product exports to the Antilles zone.

C1 Main export sectors of French overseas economies during the 2013-22 period

(USD billions)



Sources: CEPII (BACI database), French Customs, ISEE, ISPF; IEOM-IEDOM calculations.

Note: Mayotte data are not itemised as its exports are very low in value and do not accurately reflect local production.

¹ *Protocole d'objectifs et de moyens de lutte contre la vie chère*, 16 October 2024.

² A list of SIDS by basin is provided in Appendix 1.

³ The scope of this study is limited to trade in goods, excluding services and tourism in particular.

2 Specific obstacles in the overseas territories

Modest exports relative to GDP

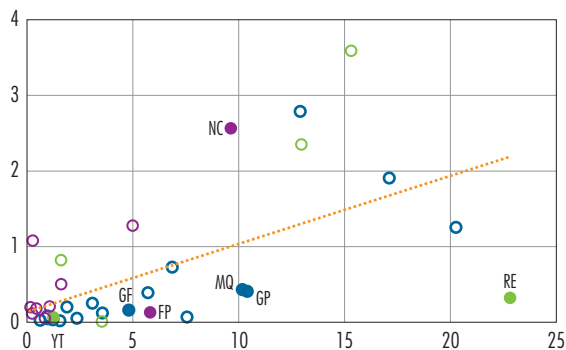
Compared to other SIDS, the French overseas departments and regions (*départements et régions d'outre-mer* – DROMs) export little, in terms of equivalent gross domestic product (GDP). In Chart 2a, all these economies lie below the line that plots the relationship between GDP and export levels, with the exception of New Caledonia.

C2 Trade in merchandise of small island states relative to their GDP level in 2022

a) Exports

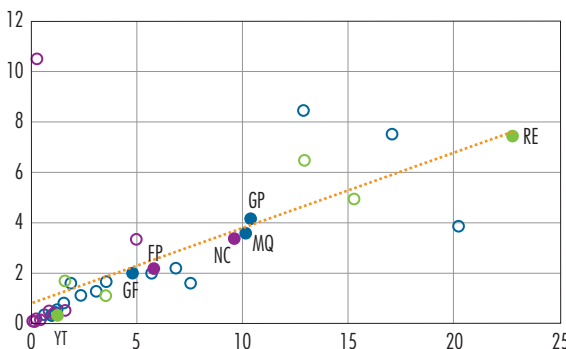
(x-axis: GDP; y-axis: exports; USD billions)

Caribbean Indian Ocean Pacific Linear (small island states)



b) Imports

(x-axis: GDP; y-axis: imports; USD billions)



Sources: CEPII (BACI database), French Customs, INSEE, ISEE, ISPF, World Bank.

Key: The overseas economies of each basin are depicted by solid circles. FG: French Guiana, GP: Guadeloupe, MQ: Martinique, NC: New Caledonia, FP: French Polynesia, RE: Réunion, YT: Mayotte.

This is a structural weakness that has remained relatively unchanged for the past several years. Conversely, in terms of openness to imports, the DROMs differ little from other SIDS (see Chart 2b).

A close dependence on France and weak regional integration

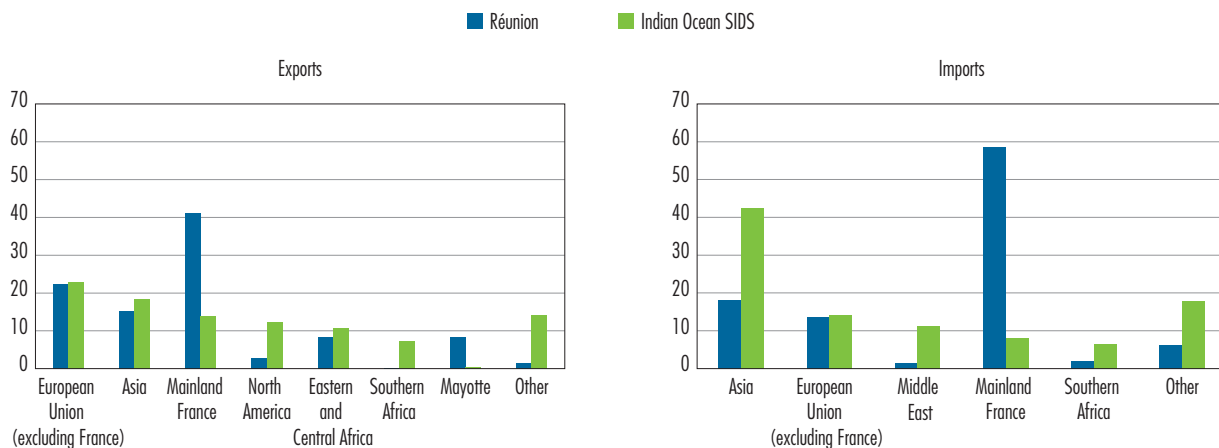
The DROMs are heavily dependent on France (the mainland and other DROMs). While North America is the primary destination market for exports from Caribbean zone countries, France accounts for more than 80% of Martinique's and Guadeloupe's exports, with half destined for mainland France and the other half going to other French departments in the Atlantic basin. Equally, 60% of imports to Guadeloupe, Martinique and Réunion come from mainland France (see Charts 3a and 3c below).

In the Pacific zone, overseas countries and territories (OCTs) export mainly to Asia, but, unlike other Pacific SIDS, New Caledonia's and French Polynesia's intra-zone trade remains limited. France continues to account for a significant share of imports, although Australia and New Zealand are the leading suppliers of agricultural products (see Chart 3b below).

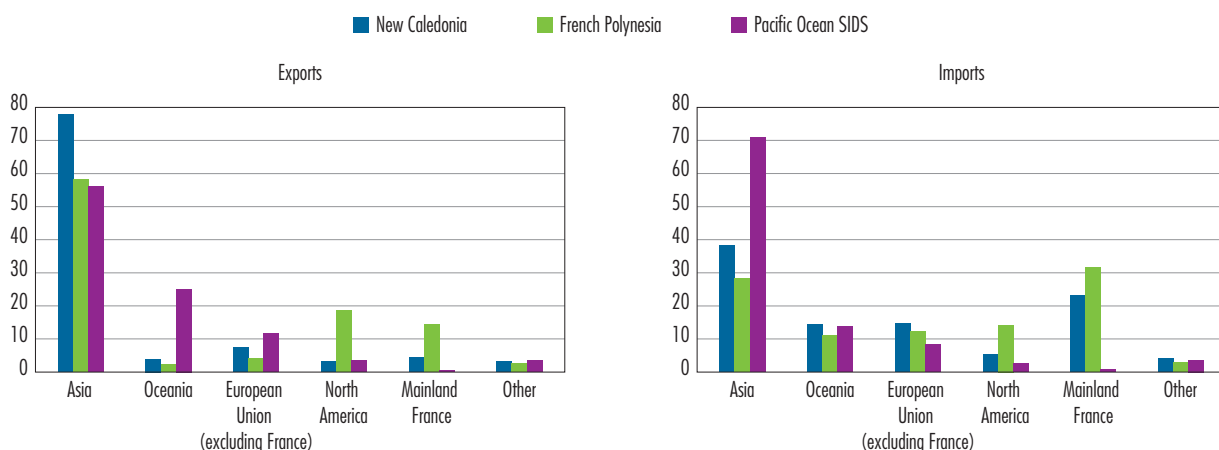
C3 Geography of trade in merchandise: regional comparisons

(%)

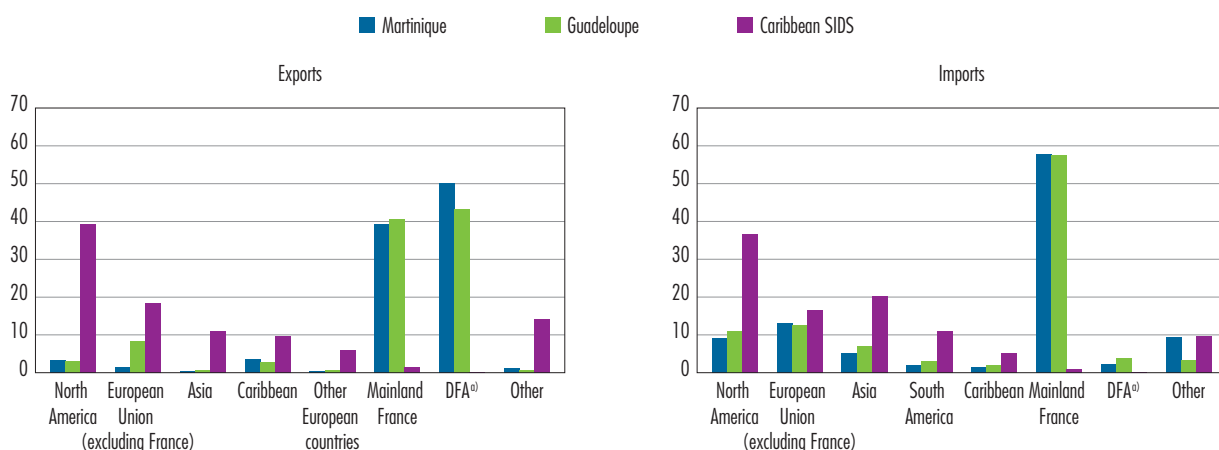
a) Réunion and Indian Ocean small island developing states (SIDS)



b) New Caledonia, French Polynesia and Pacific Ocean SIDS



c) Martinique, Guadeloupe and Caribbean SIDS



Sources: CEPII (BACI database), French Customs, ISEE, ISPF; IEDOM-IEOM calculations.

Key: During the 2013-22 period, 40% of all export amounts from Réunion were destined for mainland France, which also accounted for 12% of exports from Indian Ocean SIDS over the same period.

a) *Départements français d'Amérique* – the French American Departments (Guadeloupe, French Guiana and Martinique).

3 Using a gravity model to evaluate overseas territory trade potential

Gravity model with fixed effects

Consistent with the literature, we estimate the following gravity model with fixed effects⁴ for the 2004-21 period:

$$X_{ijt} = \exp(\beta FTA_{ijt} + \chi_{it} + \varphi_{jt} + \lambda_{ij}) + e_{ijt} \quad (1)$$

X_{ijt} represents exports in value terms from “country”⁵ i to “country” j during year t . As in Baier, Yotov and Zylkin (2019), this variable encompasses both intranational trade (X_{iit}) and international trade.

These bilateral exports depend on three fixed effects: exporting country-year, χ_{it} , importing country-year, φ_{jt} , and exporting-importing pair, λ_{ij} . This latter fixed effect covers bilateral variables that are stable over time and affect trade costs, such as distance or a shared common language, as in Anderson and Yotov (2016). This effect is assumed to be symmetric. Lastly, FTA_{ijt} is a dummy variable that takes the value 1 if countries i and j participate in the same free trade agreement during year t , and the value 0 otherwise.

The gravity model estimation allows us to calculate the trade potential between countries i and j , taking into account their respective sizes, their stable characteristics and the existence of a free trade agreement. If exports from i to j in year t prove to be lower than the model predicts, it can be said that there is untapped export potential.

Equation (1) is first estimated at the aggregate level (all sectors combined) and then sector by sector, in order to provide a more detailed analysis (the 21 sections of the Harmonized System classification).

Creating an international trade database incorporating overseas territories

The gravity model is estimated using the CEPII⁶ BACI database. Data for the overseas territories’ trade is sourced from French Customs for the DROMs; from the *Institut de la statistique et des études économiques* (ISEE – the French National Institute of Statistics and Economic Studies) for New Caledonia; and from the *Institut de la statistique de la Polynésie française* (ISPF – the French Polynesian Institute of Statistics) for French Polynesia. Trade flows from the five DROMs are separated out from France’s export and import statistics, stripping them out from “mainland France”. The final database comprises trade flows from more than 200 economies for the 2004-21 period, with the data itemised at the Harmonized System 6-digit code level.

An estimate of intranational trade (i to i) is also included to capture each economy’s domestic market, applying a methodology adapted from Head and Mayer (2021). Intranational trade is calculated by evaluating total goods production and subtracting exports. Production is calculated using data from UNIDO⁷ STAT and the United Nations National Accounts Main Aggregates (AMA) database for all countries and the Pacific OCTs; and data on value added by sector from the *Institut national de la statistique et des études économiques* (INSEE – the French National Institute of Statistics and Economic Studies) for the DROMs. In the absence of sufficiently detailed information, intranational trade is calculated only for estimates at the aggregate data level. Estimates at sectoral level do not include intranational trade due to a lack of available information.

⁴ Details of the model are provided in Appendix 2.

⁵ Here, “country” refers to the DROMs, mainland France, SIDS or other countries worldwide.

⁶ The *Centre d’études prospectives et d’informations internationales* (the French “Centre for Prospective Studies and International Information”), see Gaulier and Zignago (2010).

⁷ United Nations Industrial Development Organization.

4 Results: untapped potential and significant constraints that impede French overseas territories' trade

A disparate export situation depending on the territory and major destination markets

French West Indies: low exports to the United States, offset by an outperformance in exports to the European Union

Chart 4 illustrates the untapped export potential of the French West Indies to the United States. Although the actual observed exports (black squares) of most Caribbean countries are lower than their estimated potential (orange diamonds), Guadeloupe and Martinique – with export amounts far below their potential – stand out. Exports from Guadeloupe and Martinique amounted to 30% and 12%, respectively, of their estimated potential in 2021. A more detailed breakdown reveals very low values for the “country-pair” dimension, which reflect significant

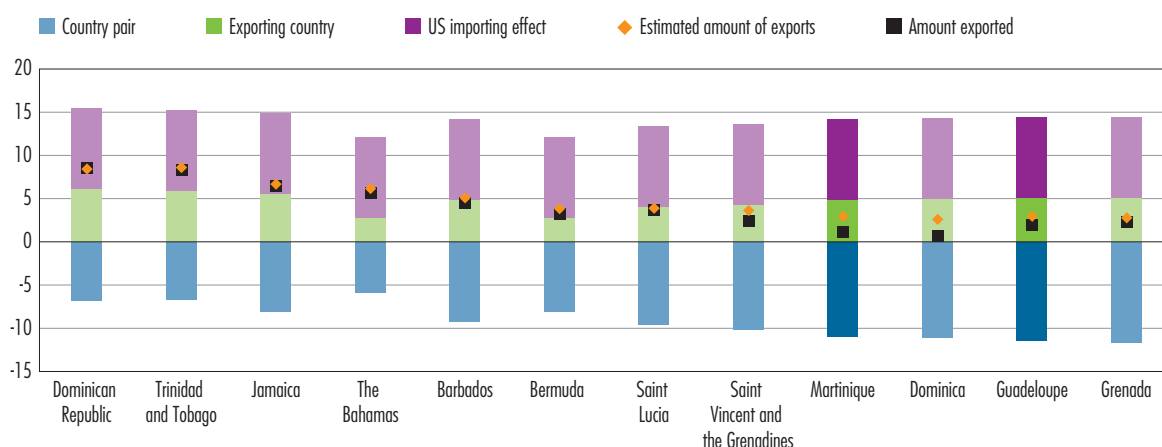
constraints on the French West Indies' in accessing the US market.

In order to evaluate the export potential of the French overseas economies if they shared the same bilateral trade constraints with the United States as their neighbours, we replace the “country-pair” effect value for the two French territories with the estimated median value for the neighbouring islands in the eastern Caribbean arc.⁸ Martinique's potential towards the US market would triple, while Guadeloupe's would double, representing an increase in exports of USD 25 million and USD 33 million per year, respectively. Moreover, the export potential for agri-food products could be 5.5 times higher for Martinique and 3.6 times higher for Guadeloupe.

However, both departments enjoy a comparative advantage vis-à-vis the European Union (EU), thanks in particular to their DROM status: assuming bilateral conditions similar to those of Barbados, their potential would be halved.

C4 Breakdown of export potential from the Caribbean to the United States in 2021

(log scale in USD millions)



Sources: CEPII (BACI database), French Customs, INSEE; IEDOM-IEOM calculations.

Key: In 2021, the amount of exports from Martinique to the United States (black square) was below its estimated potential (orange diamond). This potential is based on three components: an effect specific to the exporting country (Martinique), an effect specific to the importing country (the United States), and a “country-pair” effect that combines the bilateral structural characteristics influencing trade between the two territories (such as language, geographical distance, regulatory standards, etc.).

Notes: Export potential is expressed as a logarithm of the value in USD millions: $\log(\hat{X}_{ijt}) = (\beta FTA_{ijt} + \hat{\lambda}_{ij}) + \hat{\chi}_{it} + \hat{\varphi}_{jt}$, where $\hat{\cdot}$ denotes the estimated value of the parameters of the gravity equation. Switching to logarithms means the different contributions can be added together.

⁸ Antigua and Barbuda, Barbados, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines.

Réunion, left in Mauritius' shadow

Over the 2004-21 period, Réunion exported almost USD 4 billion worth of goods to the EU, coming close to its potential. However, in contrast, Mauritius' exports to the EU were nearly six times greater. Mauritius' export-import coverage ratio to and from the EU has exceeded 55% on average over the last decade, while the ratio for Réunion is only 6%. Applying the same "country-pair" effects to the estimates for Réunion as those observed for Mauritius towards European markets, we calculate that Réunion's EU export potential is 3.5 times greater than actual and 2 times greater for agri-food products, specifically.

Fewer imports from neighbouring countries

The results of the estimates also show that DROMs are poorly integrated into their regional environment: emblematic products that are significant in the trade of these economies – wood, agri-food and plant products – are presented as illustrations.

French Guiana, isolated from its regional environment

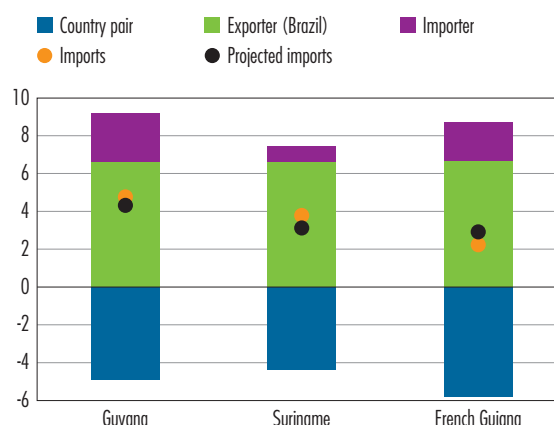
Chart 5 shows that imports from Brazil to French Guiana between 2004 and 2021 were five times lower than those to Suriname and Guyana.

This low level of trade is mainly due to the "country-pair" effect. Applying the equivalent average effect observed for neighbouring Suriname and Guyana to French Guiana, its import potential from Brazil should be 3.4 times higher than it is currently.

At the sectoral level, French Guiana's imports of timber from Brazil, which is notably used in construction, could be up to 67% greater if its country-pair effect was equivalent to the average of its neighbours. Imports of timber from Brazil over the 2004-21 period would amount to nearly 30% of total wood imports, rather than the 15% actually observed.

C5 Breakdown of total import potential from Brazil in 2021

(log scale in USD millions)



Sources: CEPII (BACI database), French Customs, INSEE; IEDOM-IEOM calculations.

Plant and agri-food products: largely untapped regional export potential of the French overseas territories

Mainland France accounts for nearly 90% of Réunion's imports of plant products, while 30% of Mauritius' imports in the same sector come from African markets. If Réunion's country-pair effects were the same as its Mauritian neighbour, its imports for this sector could be increased by 30% from South Africa, quadrupled from Madagascar and doubled overall from African markets as a whole. The same observation also applies to agri-food products.

Martinique could have imported USD 9 million worth of plant products from the Caribbean in 2021 if it had the same bilateral characteristics as Barbados. The Caribbean zone would then amount to 10.5% of Martinique's plant product imports, rather than the 1.5% actually observed.

The situation in the Pacific is more mixed. With regard to imports of plant products from the New Zealand market, the model suggests that New Caledonia and French Polynesia outperform Fiji. However, New Caledonia's imports of plant products from Australia could increase by more than 50% if it had the same country-pair effect as Fiji.

The limited impact of free trade agreements

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Literature on the impact of free trade agreements on SIDS is sparse. Didier (2022) shows that free trade agreements produce heterogeneous effects depending on the type of accord: while South-South agreements tend to generate trade, the effect of non-reciprocal agreements⁹ on intra-zone SIDS trade is insignificant.

In 2008, 14 CARIFORUM¹⁰ countries signed an agreement with the EU that notably reduced customs duties and gave full access to the entire European market, and therefore also to the DROMs.

This is incorporated into our estimation by adding an indicator variable with a value of 1 for exports from CARIFORUM countries to the EU from 2009 onwards and with a value of 0 for previous years. The results of the estimate show that imports to the *Départements français d'Amérique* (DFA – the French American Departments)¹¹ from the Caribbean countries decreased after the agreement's implementation. The signing of the trade agreement created a diversionary phenomenon, encouraging Caribbean countries to trade with continental Europe, to the detriment of regional economies. These results demonstrate that the low level of trade between French overseas territories and their neighbours is not only due to tariff barriers. It is also the result of a range of non-tariff barriers such as regulatory standards, a lack of market expertise, logistics chains integrated with mainland France and different native languages.

The trade potential of France's overseas territories remains largely untapped, particularly with regard to their regional neighbours. This can partly be put down to geographical, historical and structural constraints, but the results of the gravity model show that there is room for improvement.

Better integrating the French overseas territories into their regional environment, promoting diversification of partners and reducing non-tariff barriers could help strengthen their economic insertion and mitigate the effects of the high cost of living. This assessment points to the need for targeted policies to support regional foreign trade, which would take into account the specific characteristics of each territory.

⁹ Under trade agreements, developed countries may grant non-reciprocal trade preferences to developing countries to help them boost their exports and promote economic development: countries benefiting from these agreements gain access to developed markets with reduced customs duties, without being obliged to lower their own import barriers.

¹⁰ The Caribbean Forum (CARIFORUM) is a subgroup of the Organisation of African, Caribbean and Pacific States made up of countries located in the Caribbean.

¹¹ Guadeloupe, French Guiana and Martinique.

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Appendix 1

List of small island developing states in overseas basins

Small island developing states (SIDS) comprise around 50 countries that are exposed to specific social, economic and environmental risks. They were acknowledged as a distinct group of developing countries by the United Nations at the Conference on Environment and Development held in Rio de Janeiro in 1992.

Indian Ocean basin

- Comoros
- Maldives
- Mauritius
- Seychelles

Atlantic basin

- Antigua and Barbuda
- Barbados
- Belize
- Cuba
- Dominica
- Dominican Republic
- Grenada
- Guyana
- Haiti
- Jamaica
- Saint Kitts and Nevis
- Saint Lucia
- Saint Vincent and the Grenadines
- Suriname
- The Bahamas
- Trinidad and Tobago

Pacific basin

- Cook Islands
- Fiji
- Kiribati
- Marshall Islands
- Micronesia (Federated States of)
- Nauru
- Niue
- Palau
- Papua New Guinea
- Samoa
- Solomon Islands
- Timor-Leste
- Tonga
- Tuvalu
- Vanuatu

Appendix 2

Empirical approach

The gravity model, proposed by Tinbergen (1962), draws a parallel between Newton's law of gravitation and international trade flows: trade between two countries grows as the size of the economies concerned increases and the distance between them declines.

In the early 2000s, several studies, such as those by Eaton and Kortum (2002) and Anderson and van Wincoop (2003), provided the gravity model's microeconomic foundations. Anderson and van Wincoop (2003) proposed a more structural approach by incorporating multilateral resistance terms that capture the impact of third countries on bilateral trade between two countries: the establishment of trade barriers with a third country thus facilitates trade between countries i and j . The model was then extended to panel data by Baier and Bergstrand (2007).

In line with the most recent literature, we estimate the following model:

$$X_{ijt} = \exp(\beta FTA_{ijt} + \chi_{it} + \varphi_{jt} + \lambda_{ij}) + e_{ijt}$$

X_{ijt} represents exports from country i to country j during year t . As in Baier, Yotov and Zylkin (2019), this variable encompasses both intranational trade (X_{iit}) and international trade. Intranational sales must be included, as the national domestic economy is the reference level for international trade.

FTA_{ijt} is a dummy variable that takes the value 1 if countries i and j participate in the same free trade agreement during year t , and the value 0 otherwise. β is the coefficient that allows the measurement of the impact on trade of the participation of country i and country j in a free trade agreement.

χ_{it} and φ_{jt} are, respectively, the exporter-year and importer-year fixed effects, which provide information on the capacity of country i to export and of country j to import to/from the rest of the world during year t . These fixed effects allow us to capture the size effects of the two partner countries as measured by their GDP in the intuitive model and all factors specific to the exporting/importing country.

Lastly, λ_{ij} measures the fixed "country-pair" effect. As in Anderson and Yotov (2016), these fixed effects are symmetric. λ_{ij} allows us to take into account the level of trade barriers (fixed over time) between two partner countries and summarise all the factors that affect trade costs between i and j , such as distance, a shared common language, or a colonial heritage. The addition of this "country-pair" fixed effect also allows for the inclusion of unobservable components of trade costs which, without this fixed effect, would be included in the error term e_{ijt} and would thus bias the estimates.

The estimates are made using the Poisson pseudo-maximum likelihood (PPML) method. Santos Silva and Tenreyro (2006, 2011) show that it generates unbiased estimators of model parameters in the presence of heteroskedasticity.

This method allows zero-trade flows between two countries to be taken into account in the estimation, unlike the log-linearised estimation of the gravity equation using ordinary least squares (OLS). Furthermore, as demonstrated by Fally (2015), it produces results consistent with the structural gravity model and is compatible with the addition of fixed effects.

Equation (1) is first estimated at the aggregate level (all sectors combined) and then sector by sector, in order to provide a more detailed analysis (the 21 sections of the Harmonized System classification).¹

¹ <https://www.wcoomd.org/en/topics/nomenclature/>

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