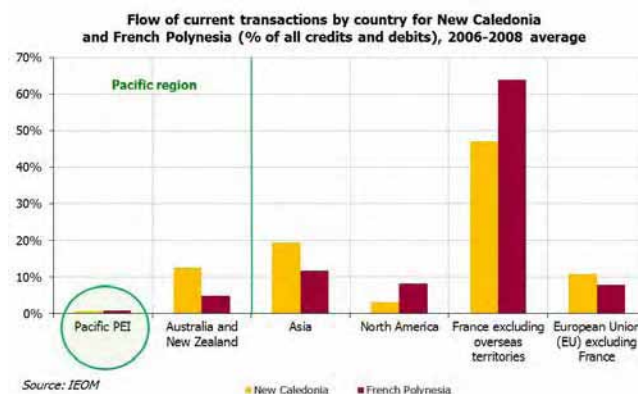


## Regional exchanges between New Caledonia and French Polynesia: limiting factors and support

*This note presents a summary of a study published in the notes of the Institut d'émission<sup>1</sup> which proposes modelling Caledonian and Polynesian bilateral exchanges, as well as those between other small Pacific island economies with the help of a gravity model (see box 2). The results obtained show the main determinants, and accordingly the factors limiting or supporting intra-regional exchanges.*

### RELATIVELY LIMITED REGIONAL EXCHANGES BETWEEN COUNTRIES AND THE TERRITORIES IN THEIR "REGION"

Exchanges between New Caledonia and French Polynesia and **other small Pacific island economies (PEI)** (see box 1 for definition) are very limited, whether in terms of goods, services or financial transactions. In terms of both revenue and expenses, the flow of current transactions between the two French regions and their small "neighbours" represent less than 1% of the total of this flow. Financial transactions with these economies, which mainly cover direct foreign aid (IDE)<sup>2</sup> and portfolio investments (IP)<sup>3</sup>, are practically non-existent. Furthermore, exchanges between New Caledonia and French Polynesia with Pacific PEI are mainly between themselves (and with Wallis and Futuna). Vanuatu and Fiji nevertheless stand out as the two French regions with which the two French regions have the most contact. Exchanges between French Polynesia and the two regional powers of **Australia and New Zealand** are also limited: around 5% of current Polynesian transactions and 7% of IDE. Likewise, those between New Caledonia and New Zealand are limited (to the order of 2% in terms of current transactions and less than 1% in terms of IDE). On the other hand, for New Caledonia, Australia is a key service provider (more than a third of Caledonian service imports), in the fields of construction and business services (within the framework of metallurgic projects), as well as tourist services (Australia is the leading tourist destination for Caledonia residents, ahead of mainland France).



**Exchanges of goods from other small island economies with their small "neighbours" are also quite limited, albeit more significant than those of the two French regions.** In 2006-2007 they thus represented around 6% of their total exchanges of goods<sup>4</sup>. *A fortiori*, exchanges of goods from these PEI and Australia and New Zealand are much more significant, with more than 40% in terms of imports and around 25% in terms of exports.

<sup>1</sup> "Regional exchanges between New Caledonia and French Polynesia: identification of limiting factors and support, using a gravity model".

<sup>2</sup> Operations carried out by investors in order to acquire, increase or liquidate lasting interest in a company and to hold (or liquidate) influence in its management, or have the capacity to do so.

<sup>3</sup> "Fixed" operations involving marketable securities between residents and non residents.

<sup>4</sup> Figure calculated on the basis of the exchange of goods from Fiji, the Solomon Islands, Samoa, Tonga and Vanuatu, for which data is available in the UN ComTrade database in 2006 and 2007, and may be considered "close" to the French regions.

### Tex box 1: What is the Pacific Region?

The Pacific region comprises around **14 small independent island economies (PEI)** (Fiji, the Solomon Islands, Kiribati, Nauru, Papua New Guinea, Samoa, Tonga, Tuvalu and Vanuatu, all members of the Commonwealth ; the Cook Islands and Niue have a free association agreement with New Zealand, with the Marshall Islands, Micronesia and Palau have a free association agreement with the United States – Compact of Free Association)<sup>5</sup> ; of some **8 territories related to a “mainland”** (Guam, the northern Mariana Islands and American Samoa linked to the United States; Norfolk linked to Australia; Tokelau linked to New Zealand; New Caledonia, French Polynesia and Wallis and Futuna linked to France); finally, **two regional powers** (Australia and New Zealand)<sup>6</sup> .

This region is **essentially a maritime one**: the land surface of the 14 ACP countries is around 540,000 km<sup>2</sup> (o/w 80 % for Papua New Guinea alone), whereas their exclusive economic area<sup>7</sup> is around 20 million km<sup>2</sup>. It is also **scarcely populated**: there are a total of 35 million inhabitants, of which 21 million are from Australia, 4 million from New Zealand and 6.5 million in Papua New Guinea. The population of the PEI alone excluding Papua New Guinea is merely around 3 million inhabitants. It is also notable for its **extremely long distances**, making the concept of a “region” relative. The average intra-Pacific distance is around 3,300 km (as a comparison, the distance separating France from other EU countries is just 835 km). A fortiori, Pacific countries and territories are extremely remote from the great global economic centres: they are about 11,000 km from the US, 15,000 km from the EU and 7,500 km from Asia. Finally, this region is notable for its **strong heterogeneity** both in terms of political status, population and the level of economic development. Thus, the Pacific area comprises both Less Advanced Countries (including the Solomon Islands, Kiribati, Tuvalu and Vanuatu), mid income countries (including the Cook Islands, Palau,

Population and GDP of the main Pacific countries and territories

	Population (1 000 hab.)	% total PEI	GDP (M USD)	% total PEI	GDP/head (1 000 USD)
<b>Independent PEI</b>					
Fiji	844	9%	3 590	10%	4 253
Cook Islands	22	0%	207	1%	9 345
Marshall Islands	60	1%	158	0%	2 655
Solomon Islands	511	5%	645	2%	1 263
Kiribati	97	1%	137	0%	1 414
Micronesia (federation)	110	1%	258	1%	2 334
Nauru	9	0%	20	0%	2 196
Niue	2	0%	13	0%	7 575
Palau	20	0%	181	1%	8 911
Papua New Guinea	6 577	68%	8 239	23%	1 253
Samoa	179	2%	523	1%	2 926
Tonga	104	1%	278	1%	2 687
Tuvalu	10	0%	15	0%	1 564
Vanuatu	234	2%	590	2%	2 521
<b>PEI linked to a mainland country</b>					
Guam	176	2%	4 280	12%	24 380
Northern Mariana Islands	85	1%	875	2%	10 248
Norfolk	2	0%	na	na	na
<b>New Caledonia</b>	<b>247</b>	<b>3%</b>	<b>8 979</b>	<b>25%</b>	<b>36 395</b>
<b>French Polynesia</b>	<b>266</b>	<b>3%</b>	<b>5 644</b>	<b>16%</b>	<b>21 244</b>
American Samoa	66	1%	532	2%	8 048
Tokelau	1	0%	na	na	na
Wallis and Futuna	13	0%	177	1%	13 189
<b>Total PEI</b>	<b>9 634</b>		<b>35 341</b>		<b>3 668</b>
<b>Australia</b>	<b>21 432</b>		<b>1 015 217</b>		<b>47 370</b>
<b>New Zealand</b>	<b>4 269</b>		<b>129 940</b>		<b>30 439</b>
<b>Total Pacific</b>	<b>35 334</b>		<b>1 180 498</b>		<b>33 409</b>

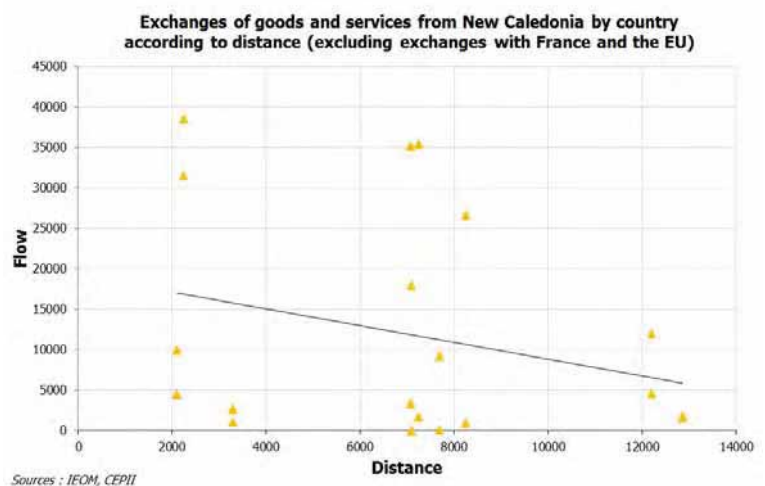
NB : the most recent year available was chosen (generally 2008).  
Source: World Bank

Fiji, Tonga) and developed countries or territories (in particular Australia, New Zealand, Guam, New Caledonia, French Polynesia).

## THE AMBIGUOUS INFLUENCE OF TRADITIONAL "GRAVITATIONAL" VARIABLES ON INTRA-PACIFIC EXCHANGES

### Absolute distance, relative distance: ambivalent effects

According to our estimates, **absolute distance generally complicates exchanges between the two French regions, like those of other PEI**. Thus, whatever the type of trade (goods, services and IDE for New Caledonia and French Polynesia), the sensitivity of their exchanges to absolute distance is relatively high compared with the results usually shown in literature (close to or higher than -1.5 which constitutes the upper range according to Siroën, 2008<sup>8</sup>). This relatively high level is probably partly due to under estimating the real distance of Pacific PEI by the physical distance variable. This variable appears to be an imperfect “proxy” for the transport costs borne by these economies, relatively speaking outside the main international circuits, comprised partly of archipelagos (causing cargo issues) and not always having sufficient infrastructure<sup>9</sup>. Nevertheless, as was indicated by Trotignon (2009)<sup>10</sup> and confirmed by our estimates, **the distance of the Pacific from the main global economic centres can at the same time support intra-zone exchanges**. Thus French Polynesia and American Samoa, for example, have more bilateral interaction, taking into account



<sup>5</sup> These 14 countries are also linked to the European Union by the Cotonou agreements (African Caribbean Pacific or ACP agreements).

<sup>6</sup> In the study, some countries or territories were initially omitted due to a lack of data. This is particularly true of Hawaii.

<sup>7</sup> This is the maritime area over which these countries exercise their sovereignty.

<sup>8</sup> “Gravity models in the empirical analysis of international trade”, *Master 2 course at Université Paris-Dauphine*.

<sup>9</sup> Poirine (2007, “Distance, insularity and competitiveness in small overseas economies”. *AFD Working Document*, November). Disdier and Head (2008, “The puzzling persistence of the distance effect on bilateral trade”, *The Review of Economics and Statistics*, vol. 90 (1)).

<sup>10</sup> “Does regional integration favour greater multilateral exchanges? A gravity model using panel data”, *Revue Française d’Economie*, XXIII, 3.

the distance separating them from the rest of the world (relative distance), than Austria and Portugal, whose geographic distance is fairly similar.

#### Distance weighted by GDP

Partner countries	New Caledonia	relationship / Pacific	French Polynesia	relationship / Pacific
Pacific	2 241	1	6 255	1
Asia	7 565	3	10 493	2
North America	12 262	5	8 462	1,4
European Union	16 464	7	15 909	3

Sources : CEPII, World Bank, IEOM calculations

**Exchanges of goods from French Polynesia, geographically isolated even for the Pacific region, are nevertheless less sensitive to distance than those from New Caledonia and other Pacific PEI.** In fact, the distance which separates French Polynesia from its “neighbours” is not significantly less than that which separates it from certain other regions in the world (North America, Asia).

**Exchanges of services from the two French regions would be the most negatively impacted by distance.** For this type of intangible interaction, distance is not measured *stricto sensu* in terms of transport costs, but encompasses different “transfer costs”: cultural costs, geographic proximity favouring cultural proximity, for example via a common language; the cost of information, distance being a source of asymmetric information, “hiding” certain opportunities (which is particularly important in the Pacific region where access to IT and communications technology remains insufficient); the cost of long transport times in the tourism sector.

### Size and level of economic development: limitations on exchanges with Pacific PEI, support for those with Australia and New Zealand

The small island economies of the Pacific, which combine at the same time, with just a few exceptions (Fiji, Guam, for example), small size and a limited level of economic development, are, according to these criteria, little inclined to be commercial partners or key financiers of New Caledonia and French Polynesia. On the other hand, **there is a high potential for exchanges with Australia and New Zealand from this viewpoint, in particular in terms of IDE.** The geographic location of IDE flows is thus highly sensitive to the level of GDP per head of partner countries, in particular guaranteeing the quality of institutions (policies, business law), infrastructures and manpower, which is a key factor in this type of mid-long term investment.

#### Estimated coefficients - New Caledonia and French Polynesia (2006-2008)

Explanatory variables	Goods	Services	IDE
Distance (absolute)	-1,4	-2,1	-1,4
Population (partner country)	1,1	0,8	0,5
GDP/head (partner country)	1,3	1,9	1,8
Mainland	3,5	5,4	4,9
PTOM	1,0	2,2	2,7
COM	1,1	2,3	N/A
Common language	N/A	3,5	4,0

Source: IEOM

#### Tex box 2: Data used and estimate method

Data relating to **economic (bilateral) exchanges for New Caledonia and French Polynesia** derives from the balance of payments established each year by the IEOM. They have been subject to various different account methods and generally cover the 2006-2008 period. Data relating to the **exchange of goods from other small island economies in the Pacific** come from the UN ComTrade database (for the 1999-2008 period) and have, for econometric estimates, been subject to a correction of mirror statements. The **distance** variables used come from the CEPII Distance base. Finally, **GDP** and **population** data was taken from the World Development Indicators of the World Bank. When necessary they have been supplemented by local data (accessible via the Pacific Regional Information System).

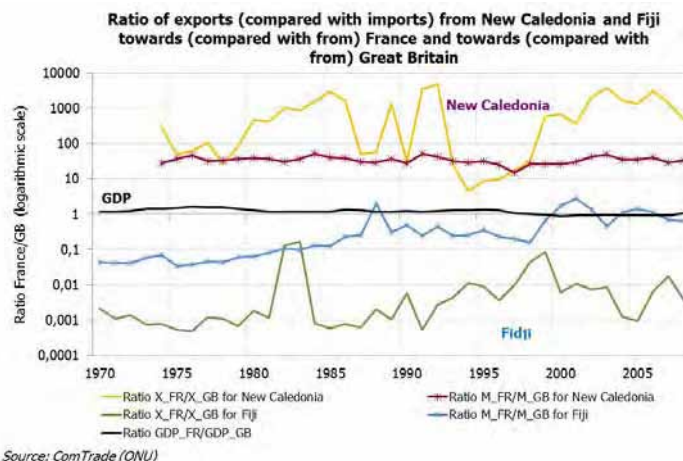
The bilateral exchanges of the two French regions, like those of the other PEI, have been modelled with the help of a **gravity model**, which is the international economic reference point when it comes to explaining this type of flow. It has the advantage of being empirically robust, theoretically well grounded and relatively “universal” (i.e. adaptable to different types of exchanges). According to this model, bilateral exchanges are positively linked to the size of each partner, as understood by GDP, and negatively affected by the level of “transfer costs”, measured by distance. This basic version of the model is generally augmented by other variables (relative distance, mainland indicators, common language, trading blocs, etc.).

## LOW PARTICIPATION IN REGIONAL AGREEMENTS BEARING ON INTRA-ZONE EXCHANGES BY FRENCH REGIONS

The relative weakness of trade between the two French regions with the countries and territories of their region and *a contrario* the significance of their exchanges with the EU (even excluding France) shows, above and beyond the influence of standard gravitational variables (distance, GDP), the key role played by “cooperation agreements”. Thus, **the “gravity standard” alone would justify the exchanges of goods between New Caledonia and French Polynesia and the French mainland alone around 30 times less than the flows actually observed, and over 200 times less in terms of exchanges of services<sup>11</sup>.** Thanks to their status as a French region and PTOM (Overseas Countries and Territories<sup>12</sup>), New Caledonia and French Polynesia are in fact more integrated with the European Union than with the countries in their region<sup>13</sup>. They thus show signs of relatively sustained tariff and non tariff protection vis a vis other countries in the zone, and are largely excluded from the main regional

commercial agreements in force (South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA) with Australia and New Zealand, Pacific Island Countries Trade Agreement (PICTA) in application with the main other small island economies, and the Melanesian Spearhead Group (MSG) for New Caledonia, see box 3).

*A contrario*, a significant effect of the SPARTECA and MSG agreements on the exchange of goods from small Pacific island economies can be seen, whereas their links with their former "mainland" (European) appear to have been eroded. Thus, the effect of being a former colony of a European country (in the case of Fiji, Kiribati, the Solomon Islands, Tonga, Tuvalu and Vanuatu) cannot be isolated (other than the effect of a shared language), probably due to the erosion of colonial links after independence, accelerated by geographic remoteness. As an illustration, the "colonial premium" (compared with the United Kingdom) has almost disappeared in terms of imports from Fiji (which reached a factor of 30 in the mid 1970s, close to the current level estimated for New Caledonia vis a vis mainland France).



Estimated coefficients - exchanges of goods (1999-2008)

Explanatory variables	French		
	New Caledonia	Polynesia	Pacific PEI
Distance (absolute)	-2,0	-1,4	-2,1
Population (partner country)	1,2	1,0	1,0
GDP/head (partner country)	1,1	1,2	0,9
(Former/ current) Mainland	4,9	3,9	N/A
PTOM / ACP	2,3	1,3	1,4
COM	2,6	1,2	-
Common language	0,9	N/A	1,4
SPARTECA	-	-	1,3
MSG	-	-	0,7

Sources: UN, IEOM calculations

### Tex box 3: A renewal of the regional integration process in the Pacific since the beginning of the 2000s

Several initiatives have recently given a further impetus to regional cooperation in the Pacific: the PACER framework agreement (Pacific Agreement on Closer Economic Relations) signed in 2001 between the main small island economies as well as Australia and New Zealand and, under its auspices, the PICTA agreement signed in 2002 between 12 small island economies, which provides for the progressive liberalisation of the trade in goods. As of 2009 negotiations have also been under way to expand the PICTA agreement to Australia and New Zealand ("PACER plus"). These initiatives represent a break with the approach adopted so far, associating a large number of Pacific countries (compared with more targeted initiatives in the past such as the MSG agreement for example), and favouring free trade (compared with non reciprocal preferential agreements previously favoured, such as the SPARTECA agreement for example).

Regional cooperation in the Pacific zone is also encouraged by the European Union (EU) via Economic Partnership Agreements (EPA) under negotiation since 2002 (which should succeed the Lomé regime). These agreements generally seek to encourage free trade between the European Union and ACP countries, grouped together within regional blocs. However, several elements put the brakes on these negotiations and in 2009, just one temporary EPA with Papua New Guinea and Fiji has been concluded.

New Caledonia and French Polynesia, which are largely excluded from these initiatives, are nevertheless showing greater interest in their regional environment. Furthermore, within the framework of the growing autonomy of the two territories, local governments are now authorised to directly negotiate regional agreements. The two regions thus became associate members of the Pacific Islands Forum in 2006, and entered into negotiations for potential membership of PICTA in 2005.

<sup>11</sup> It should be noted that this "colonial premium" is doubled by a PTOM premium (see *infra*) and a COM premium.

<sup>12</sup> This statute defines the association agreement linking them with the European Union (regime similar to but more advantageous than the ACP agreements).

<sup>13</sup> This close relationship has different aspects, in particular institutional (powers devolved to or shared with the mainland State, shared regulatory framework), cultural (same language), financial (the importance of public "payments" in particular), commercial (extremely preferential trading regime with the European Union) and monetary (belonging to the same monetary zone).