Oceania Trade Regionalism : Estimates from gravity equations

Laïsa RO'I

Associate Professor in Economics

University of New Caledonia

UNIVERSITÉ de la
NOUVELLE-CALÉDONIE
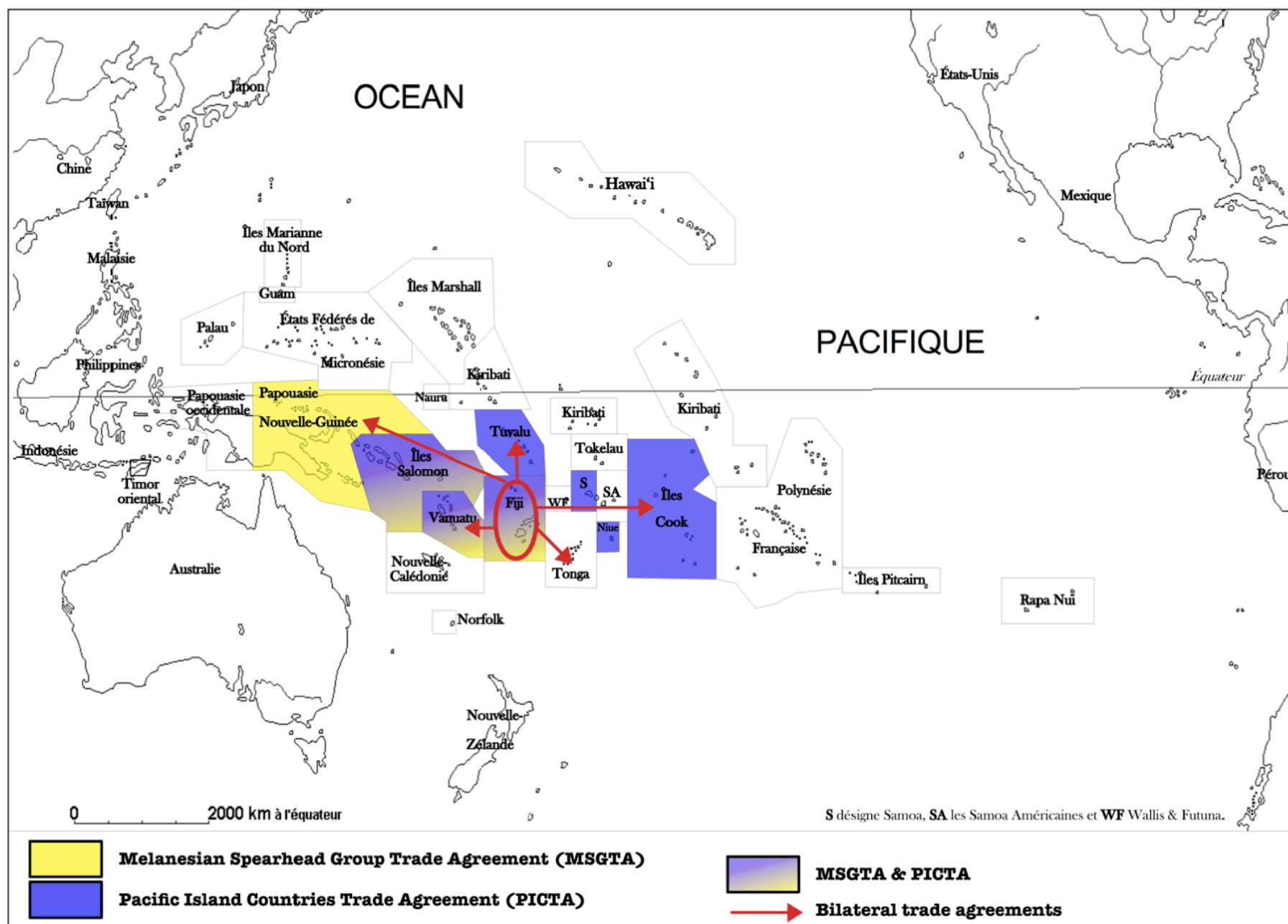
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OUTLINE

- Context : Focus on Regional Trade Agreements

- Assessment Methodology & Sources of Data

- RTA : Stepping stones or stumbling blocs ?

- Conclusion

Regional Trade Agreements among PICs

MSGTA (4 PICs)

PICTA (7 PICs)
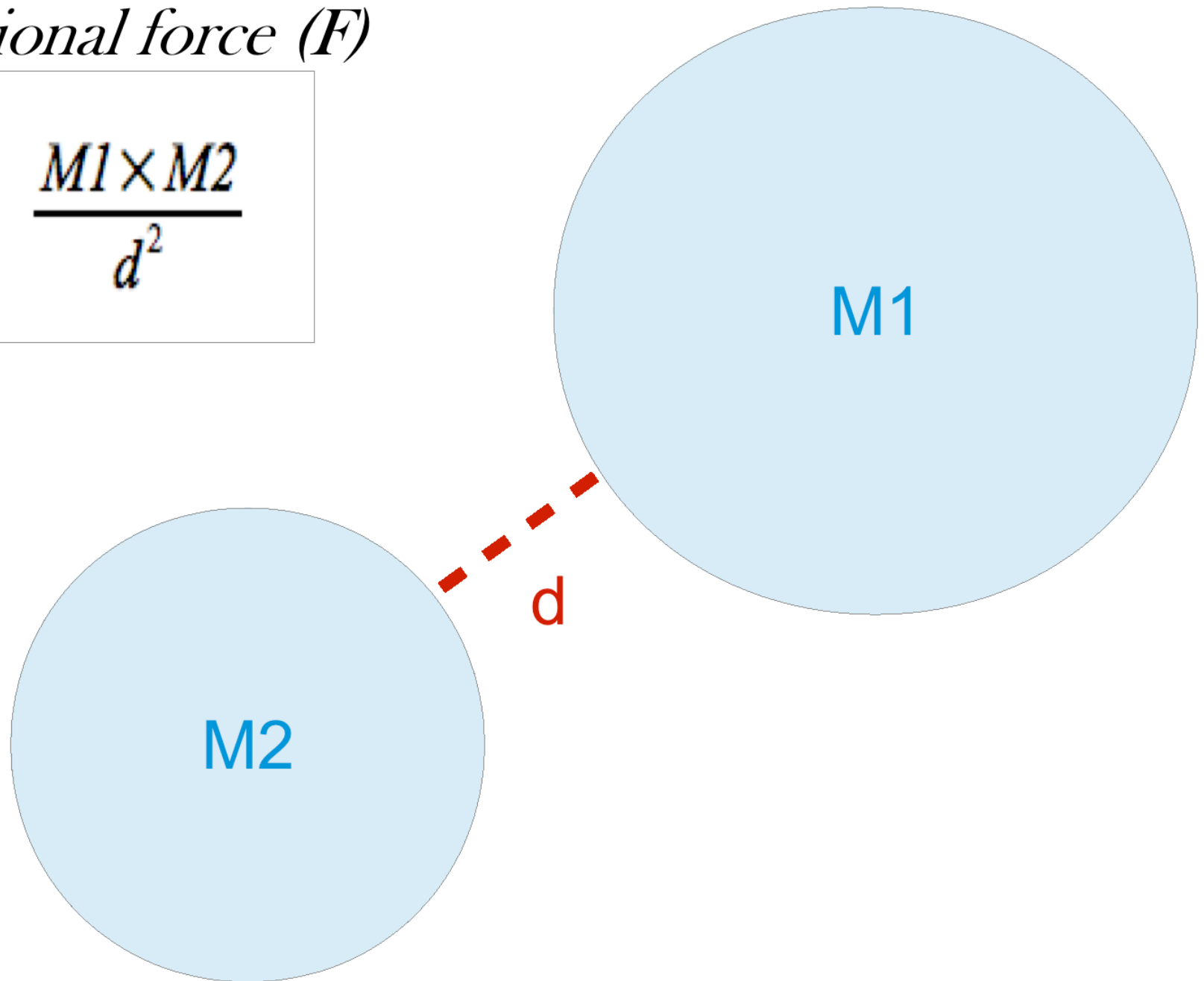
Bilateral trade agreements (FJ)

OCEAN **PACIFIQUE**

États-Unis

Chine

Japon

Taïwan

Mexique

Malaisie

Îles Marianne du Nord

Guam

Îles Marshall

Hawai'i

Palau

États Fédérés de

Philippines

Micronésie

Kiribati

Équateur

Papouasie occidentale

Papouasie Nouvelle-Guinée

Nauru

Kiribati

Kiribati

Pérou

Indonésie

Tuvalu

Kiribati

Timor oriental

Îles Salomon

Tokelau

Polynésie

Vanuatu

Fiji

S

SA

Îles Cook

WF

Niue

Française

Nouvelle-Calédonie

Tonga

Australie

Îles Pitcairn

Norfolk

Rapa Nui

Nouvelle-Zélande

| 0 | 2000 km à l'équateur |

S désigne Samoa, **SA** les Samoa Américaines et **WF** Wallis & Futuna.

Melanesian Spearhead Group Trade Agreement (MSGTA)

Pacific Island Countries Trade Agreement (PICTA)

MSGTA & PICTA

Bilateral trade agreements

Assessment Methodology & Data sources

Gravity estimates

Based on a Panel database

Gravitational force (F)

$$F = G \frac{M1 \times M2}{d^2}$$

M1

M2

d

Intensity of flows (F)

$$F = G \frac{M1 \times M2}{d^2}$$

F : trade (or capital or migration) flows
from location 1 to location 2

G : multilateral trade resistance

M1, M2 : economic sizes
> GDP, population

d : factors of bilateral trade resistance
<u>centrifugal factors</u>
geographic distance, remoteness

<u>centripetal factors</u>
> institutional / cultural proximity
> trade, monetary or political agreements

Data sources

- Trade mirror data from PRISM, NSOs, ADB & IMF DOTS

- > 15 000 bilateral (origin-destination) trade observations

  - Unbalanced panel starting in 1980

  - 25 PICs and their 25 main trading partners

RTA : stepping stones or stumbling blocks?

Estimation results

Gravity estimates

- Structural gravity model (Anderson & van Wincoop 2003)

- Log linear specification with multilateral trade resistance accounted for by country-year fixed effects (Baldwin & Taglioni 2006)

- Robustness checks

  - Alternative fixed effects specifications

  - Alternative dataset with PICs only

  - Multiplicative functional form (Santos Silva & Tenreyro 2010) & Poisson pseudo maximum likelihood (PPML) estimation method (Larch, Wanner, Yotov & Zylkin 2017)

Key drivers of PICs trade

- Sending country's size
  inconclusive

- Receiving country's size
  the smaller you are, the more you import

- Geographic distance
  reduces trade

- Trade agreements with the rest of the world
  inconclusive

- Colonial history
  Direct (colonial relation)
  Indirect (common ascendency)

- Trade agreements among PICs
  Trade creation among members
  Exports to non members

- Trade agreements with ANZ
  Trade creation (ANZ-PICs)
  Trade diversion (at the expense of non members)

Further research

What may drive the results ?	Data / tools needed
Value chain impacts ? Re-export ?	Bilateral trade data at the industry / product level
Fiji ?	Monthly / Quarterly bilateral trade data between Fiji and its partners (PICs & RotW)
Complementarity with capital/aid flows ?	Bilateral capital/aid data over the long run
Spatial dependence / spatial heterogeneity ?	Spatial interaction model and the spatial lag version of this model (LeSage & Pace 2008)