

The spatial structure of demographic ageing in the Mediterranean : what trends between convergence and divergence?

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The spatial structure of demographic ageing in the Mediterranean

What trends between convergence and divergence?

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The demographic transition concerns all Mediterranean countries. The fertility and mortality decline cause a demographic ageing. The countries of the northern shore age for a long time. Now, the countries of the southern shore don't age very much. However, they will age in the future, but faster than the countries of the northern shore because their fertility decline faster too. Because of this fast fertility decline, the southern territories could catch up with the northern territories, and converge towards them. In this study, I analyse the convergence of the demographic ageing in the Mediterranean, with a subnational scale.To do this, I do demographic forecast to explore some possible futures.

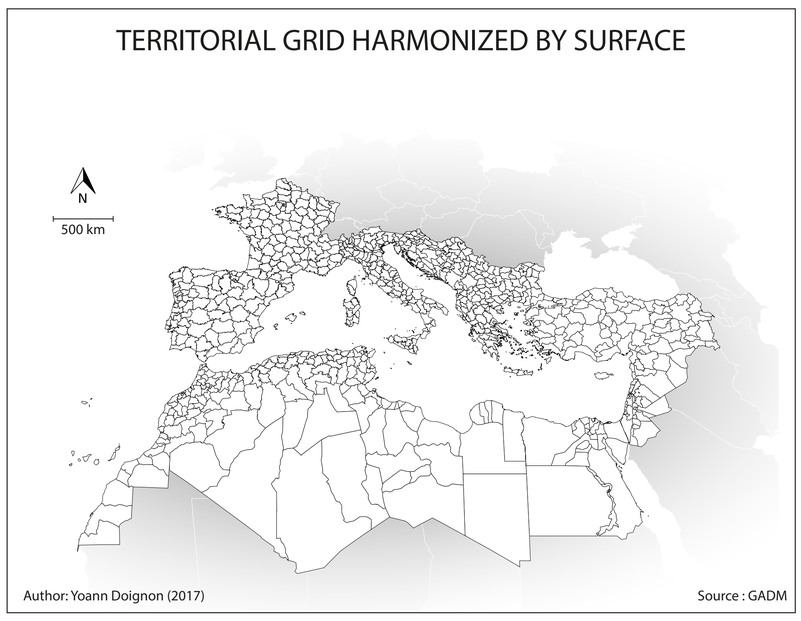
A specific methodology of spatial demography

	Abréviation	Signification	Adresse internet
Organisation internationale	DHS	Demographic and Health Surveys	http://dhsprogram.com/
	ONU	Organisation des Nations Unies	http://www.un.org/
	WPP 2015	World Population Prospects 2015	https://esa.un.org/unpd/wpp/
	EUROSTAT		http://ec.europa.eu/eurostat/fr/home
Albanie	INSTAT	Instituti I Statistikave	http://www.instat.gov.al/
Algérie	ONS	Office National des Statistiques	http://www.ons.dz/
Bosnie Herzégovine	RZSRS	Republika Srpska Institute of Statistics	http://www.rzs.rs.ba/
	FZS	Federal Office of Statistics	http://www.fzs.ba
	BHAS	Bosna i Hercegovina Agencija za Statistiku	http://www.bhas.ba/
Bulgarie	NSI	National Statistical Institute	http://www.nsi.bg/
Chypre	SSC	Statistical Service of Cyprus	http://www.mof.gov.cy
Croatie	CBS1	Croatian Bureau of Statistics (Croatie)	http://www.dzs.hr/
Egypte	CAPMAS	Central Agency for Public Mobilization and Statistics	http://www.capmas.gov.eg/
Espagne	INE	Instituto Nacional de Estadistica	http://www.ine.es/
France	INSEE	Institut National de la Statistique et des Etudes Economiques	http://www.insee.fr/
Grèce	HSS	Hellenic Statistical Authority	http://www.statistics.gr/
Israel	CBS2	Central Bureau of Statistics (Israël)	http://www.cbs.gov.il/
Italie	ISTAT	Istituto Nazionale di Statistica	http://www.istat.it/
Jordanie	DOS	Department of Statistics	http://web.dos.gov.jo/
	JFFHS	Jordan Population and Family Health Survey	
Kosovo	ASK	Agjencia e Statistikave Të Kosovës	http://ask.rks-gov.net/
Liban	MOPH	Ministry Of Public Health	http://www.moph.gov.lb/
	CAS	Central Administration of Statistics	http://www.cas.gov.lb/
Libye	BSC	Bureau of Statistics and Census Libya	http://www.bsc.ly/
Macédoine	SSO	State Statistical Office	http://www.stat.gov.mk/
Malte	NSO	National Statistics Office	https://nso.gov.mt/
Maroc	HCP	Haut Commissariat au Plan	http://www.hcp.ma/
Montenegro	MONSTAT	Statistical Office of Montenegro	http://www.monstat.org/
Palestine	PCBS	Palestinian Central Bureau of Statistics	http://www.pcbs.gov.ps/
Portugal	INE	Instituto Nacional de Estatistica	https://www.ine.pt/
Serbie	SORS1	Statistical Office of the Republic of Serbia	http://webrzs.stat.gov.rs/
Slovénie	SORS2	Statistical Office of the Republic of Slovenia	http://www.stat.si/
Syrie	CBS3	Central Bureau of Statistics (Syrie)	http://www.cbssyr.sy/
Tunisie	INS	Institut National de la Statistique	http://www.ins.tn/
		Ministère de la santé	http://www.santetunisie.rns.tn/
Turquie	TURKSTAT	Turkish Statistical Institute	http://www.turkstat.gov.tr/

Varied sources of data

To study the demographic in Mediterranean, I have to do forecasts in infranational scale. I collect specific data about fertility, mortality and population structure by age and sex. I seek these data in varied sources (figure on the left). Sometimes, they are incomplete. I solve this problem with methods of indirect estimation. Then I do a territorial grid harmonized by surface (figure on the right).

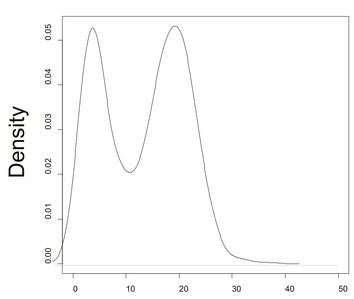
I do forecasts with closed populations, because the migration data are often defective in several countries. I choose to do 4 prospective scenarii with the UN forecasts (World Population Prospects 2015). The scenario 1 is the median scenario. The scenario 2 is the case in which a theoretical demographic transition (convergence of the TFR around 2.1). The scenario 3 is the case in which the demographic transition is very slow. The scenario 4 is a case in which TFR grow up in some countries (Egypt, Algeria, Tunisia, Morocco ...).

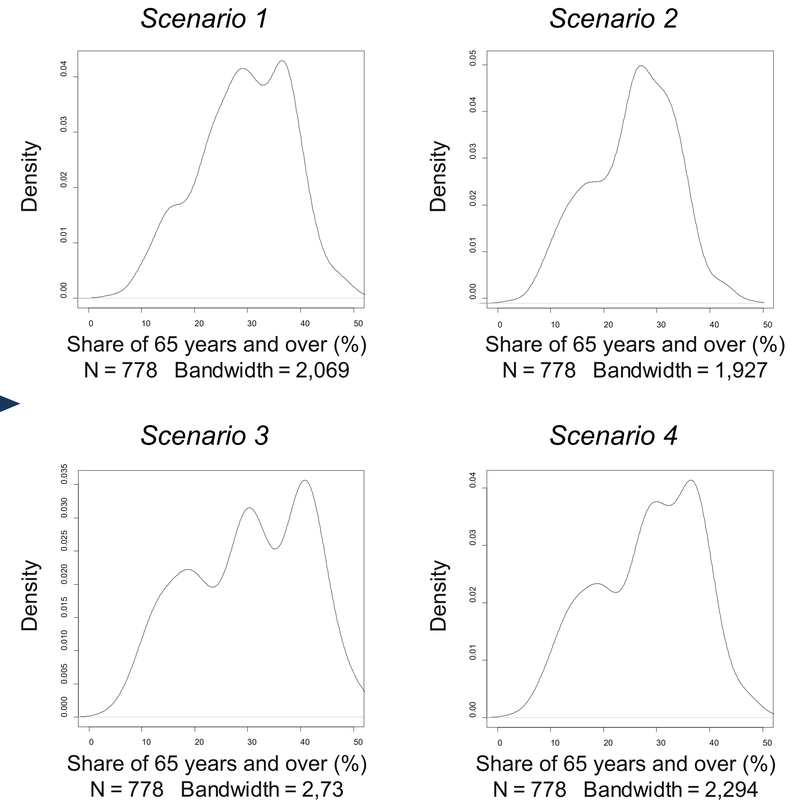


Standardisation of the territorial grid

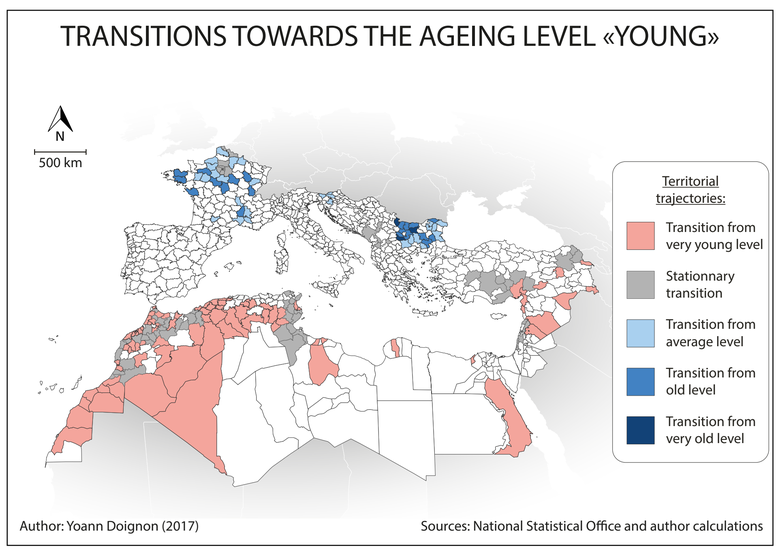
Global analysis: an incomplete convergence

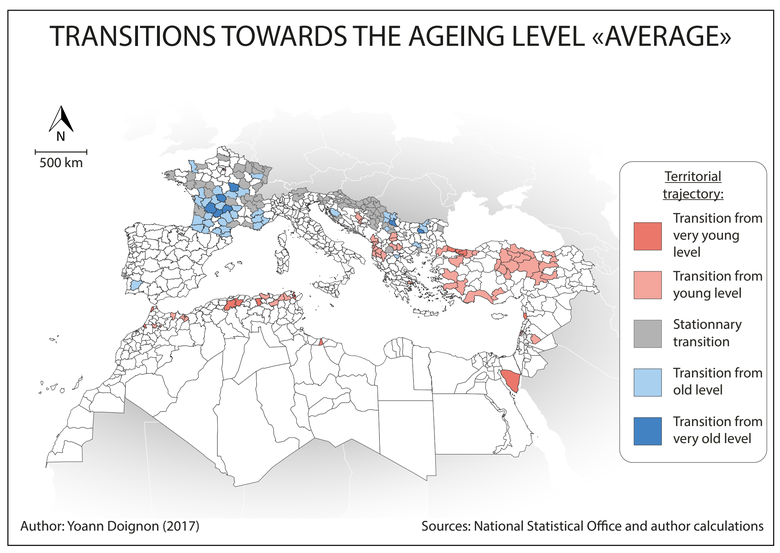
First, I do a global analysis. On the right, there are the statistic distributions of the « share of 65 years and over (%)» of all mediterranean territories, in 2015, and in 2065 for each prospective scenario.
In 2015, the distribution is clearly bimodal. On one hand, the young territories and on the other hand, the old countries.
In 2065, any scenario shows a complete convergence, even if the distribution of the scenarii 1 and 2 tend towards a gaussian distribution.

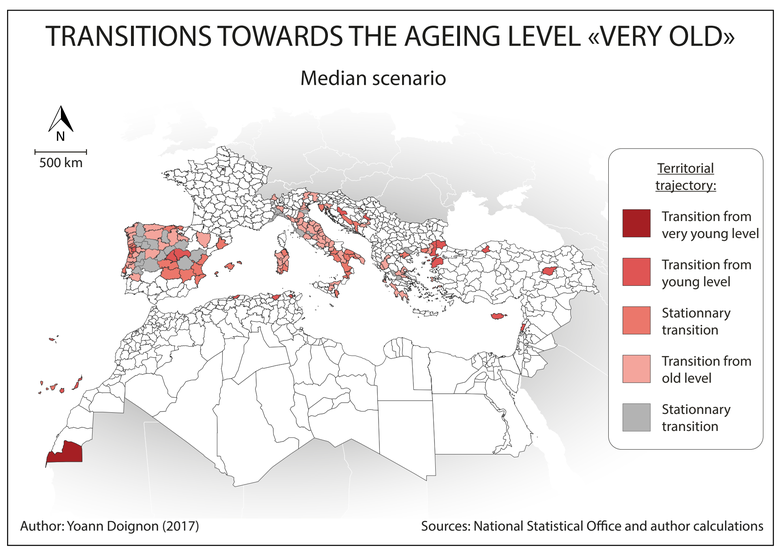




A geographic point of view: some local convergences







Then, I discretize the «share of 65 years and over (%)» in 5 categories : very young, young, average, old, very old. I analyse the trajectories between each categories between 2015 and 2065. I map the trajectories towards the ageing leevel «young», «average», and «very old. In this case, we can see some territories on the two shores with the same ageing level. Locally, we observe territorial convergence, despite a global incomplete convergence.

More about this work: