
Implications of population growth on the southern shore

1. The end of the population explosion

Based on a methodology more apt to accommodate regional realities, these new forecasts call into question the “explosive growth” image long attached to the Arab, Turkish and Iranian populations. Pockets of excessive population growth can still be found (Palestine, Yemen), but have little overall effect. Fertility transition is well under way and southern shore population trends are increasingly falling into line with those of northern Mediterranean countries. By 2025, the all-region total fertility rate will stand at 2.08 children per woman in the rapid fertility decline scenario and 2.25 in to the slow fertility decline scenario (table 1). Even with some of the world’s most pronatalist countries, the region will be a whisker away from replacement level (2.1), or even close to the UN’s projected fertility levels for Western Europe (1.76). Mediterranean region countries will make such rapid headway with their fertility transition, that values could fall below replacement level: 1.98 under the rapid decrease scenario (2.16, in the slow one). The year 2025, it must be stressed, is imminent in terms of generations - less than one - and individuals: a child born today will be only 25 years old in 2025, perhaps even still in higher education.

Why to contend ourselves to 25 years? Population forecasts, from a strict arithmetic or computing point of view are an easy task. Hence the temptation to carry them for longer time horizons, to the middle of the 21st century or even further. Yet, uncertainties of the exercise grow exponentially with time. Yemen, the fastest growing country of this region illustrates well this fact. Whereas in 2025, 67% of its population will be the outcome of new-born generations –thus the most hazardous part to predict in projecting population- in 2050, this shaky element will represent 90% of the total population. There’s no surprise to find how much the last revision made by the UN in 2000 has affected its future population size compared to the 1998’s forecast:

Yemen in 2050 (1998 UN forecast).... 56 801 000
 Yemen in 2050 (2000 UN forecast)....102 379 000

It is worthwhile mentioning that the UN forecast of this region of the world (the Arab countries and Iran, especially) has played a major role in boosting the total world population, revised from 8.9 to 9.3 billion between 1998 and 2000. The contribution of this region to the overall increment of the world population, 413 million, is 59 million or 14.3%, while its population share is only 6.6%.

**Table 1. - Overview: fertility and population (2000-2025)
Scenario 1**

Country	FERTILITY						POPULATION					
	2000	2005	2010	2015	2020	2025	2000	2005	2010	2015	2020	2025
Morocco	2.72	2.43	2.22	2.07	1.98	1.96	28548	30736	32668	34924	36856	38663
Algeria	2.66	2.22	2.11	2.11	2.10	2.10	30388	32577	34826	37249	39719	42012
Tunisia	2.06	1.74	1.71	1.68	1.67	1.65	9561	10066	10544	11031	11489	11870
Libya	2.87	2.27	2.10	2.10	2.10	2.10	5187	5703	6185	6643	7085	7509
Mauritani	3.36	2.81	2.36	2.10	2.10	2.10	2488	2652	2810	2964	3122	3285
MAU	2.64	2.26	2.11	2.04	2.00	2.00	76172	81734	87033	92811	98271	103339
Egypt	3.03	2.53	2.27	2.16	2.10	2.10	63467	68960	74160	79130	83813	88252
Sudan	3.55	3.10	2.70	2.36	2.10	2.10	30282	32913	35582	38128	40405	42513
Nile basin	3.20	2.71	2.41	2.23	2.10	2.10	93749	101873	109742	117258	124218	130765
Syria	3.60	3.03	2.65	2.41	2.23	2.12	15654	17377	19177	20996	22735	24285
Lebanon	1.94	1.69	1.69	1.69	1.69	1.69	3396	3556	3698	3829	3946	4040
Iraq	3.95	3.50	3.11	2.76	2.45	2.18	22062	24201	26467	28805	31097	33220
Jordan	3.91	3.56	3.26	2.98	2.72	2.49	4774	5422	6094	6762	7408	8028
Palestine	5.60	4.95	4.38	3.87	3.42	3.02	3074	3621	4202	4819	5462	6110
Israel	2.83	2.80	2.74	2.64	2.57	2.50	6060	6637	7304	7946	8547	9119
Northern Middle East	3.69	3.28	2.95	2.68	2.45	2.26	55020	60814	66942	73157	79195	84802
Yemen	5.71	4.94	4.33	3.98	3.66	3.38	17654	20339	23123	26095	29282	32603
Saudi Arabia	4.17	3.79	3.44	3.12	2.84	2.58	20346	22831	25558	28436	31281	33907
Oman							2538	2938	3371	3838	4326	4830
UAE							2606	2791	2931	3016	3067	3096
Kuwait	3.26	2.83	2.47	2.15	2.10	2.10	1914	2138	2372	2583	2751	2873
Bahrain							640	684	714	741	769	792
Qatar							564	600	626	647	663	673
Arabian Peninsula	4.60	4.07	3.63	3.30	3.05	2.84	46263	52321	58695	65356	72139	78774
Turkey	2.32	2.08	1.89	1.74	1.69	1.67	65868	70340	74334	77625	80378	82939
Iran	2.06	1.87	1.72	1.67	1.65	1.65	63467	67507	71716	75689	79184	82139
ALL	3.00	2.64	2.40	2.24	2.14	2.08	400539	434589	468462	501896	533385	562758
Mediterranean countries	2.75	2.38	2.18	2.06	2.00	1.98	231203	249573	267098	284192	300030	314799
Arab world	3.39	2.95	2.66	2.47	2.33	2.25	265144	290105	315108	340636	365276	388561

Scenario 2

Country	FERTILITY						POPULATION					
	2000	2005	2010	2015	2020	2025	2000	2005	2010	2015	2020	2025
Morocco	2.85	2.64	2.47	2.33	2.22	2.13	28613	30992	33416	35820	38108	40241
Algeria	2.98	2.58	2.31	2.17	2.10	2.10	30388	32973	35583	38190	40720	43063
Tunisia	2.06	1.92	1.85	1.83	1.82	1.80	9561	10104	10653	11208	11735	12186
Libya	3.22	2.85	2.52	2.24	2.10	2.10	5226	5856	6472	7009	7475	7919
Mauritania	3.66	3.35	3.07	2.80	2.56	2.35	2500	2701	2921	3155	3385	3601
MAU	2.85	2.57	2.36	2.22	2.13	2.09	76288	82626	89045	95382	101423	107010
Egypt	3.29	3.01	2.78	2.54	2.20	2.10	63775	70225	76842	83189	88733	93650
Sudan	3.80	3.55	3.31	3.09	2.89	2.70	30412	33452	36826	40354	43830	47137
Nile basin	3.45	3.18	2.95	2.72	2.43	2.30	94187	103677	113668	123543	132563	140787
Syria	3.60	3.41	3.25	3.11	2.97	2.84	15654	17506	19676	22049	24450	26729
Lebanon	2.01	1.85	1.78	1.77	1.76	1.76	3400	3576	3737	3881	4010	4117
Iraq	4.18	3.93	3.69	3.47	3.26	3.07	22141	24529	27241	30241	33414	36637
Jordan	4.03	3.79	3.56	3.35	3.15	2.96	4786	5467	6200	6955	7710	8470
Palestine	5.93	5.54	5.18	4.84	4.53	4.23	3090	3690	4368	5135	5993	6938
Israel	2.83	2.83	2.85	2.89	2.92	2.95	6060	6678	7399	8126	8850	9588
Northern Middle East	3.82	3.63	3.45	3.30	3.15	3.01	55131	61446	68621	76387	84427	92479
Yemen	6.05	5.52	5.06	4.68	4.34	4.04	17745	20702	23942	27508	31405	35606
Saudi Arabia	4.37	4.15	3.94	3.74	3.56	3.38	20404	23083	26174	29614	33227	36832
Oman							2547	2976	3468	4030	4630	5239
UAE							2615	2828	3015	3167	3283	3358
Kuwait	3.49	3.25	3.03	2.82	2.63	2.45	1920	2166	2440	2712	2944	3117
Bahrain							642	693	734	777	823	859
Qatar							567	607	644	679	709	730
Arabian Peninsula	5.17	4.86	4.55	4.26	3.99	3.73	46793	53645	61357	69880	79023	88536
Turkey	2.42	2.25	2.10	1.97	1.92	1.87	66005	70873	75449	79408	82984	86233
Iran	2.06	2.06	2.06	2.06	2.06	2.06	63467	67798	72868	78043	82803	87053
ALL	3.16	2.97	2.80	2.66	2.53	2.45	401518	439475	480068	521250	561221	599303
Mediterranean countries	2.92	2.69	2.51	2.36	2.22	2.16	231772	252473	273595	294015	313058	330664
Arab world	3.62	3.35	3.13	2.94	2.75	2.64	265986	294126	324352	355673	386584	416429

Table 2. - Population ageing on the southern shore of the Mediterranean

Country	Proportion aged 65 and above (%)			Population aged 65 and above (thousands)			Annual rate of increase (%)
	2000	2025	Increase	2000	2025	Factor	
Morocco	5.0	8.4	3.4	1427	3249	2.28	3.3
Algeria	4.6	7.3	2.7	1401	3082	2.20	3.2
Tunisia	6.1	10.0	3.9	580	1191	2.05	2.9
Libya	3.8	5.6	1.8	197	423	2.15	3.1
Mauritania	3.4	6.2	2.8	85	202	2.38	3.5
Egypt	4.1	8.6	4.5	2586	7559	2.92	4.3
Sudan	4.8	5.5	0.7	1443	2349	1.63	2.0
Syria	3.1	6.0	2.9	483	1456	3.01	4.4
Lebanon	7.4	11.3	3.9	250	457	1.83	2.4
Iraq	3.1	5.8	2.7	683	1910	2.80	4.1
Jordan	3.1	5.1	2.0	149	407	2.73	4.0
Palestine	3.3	3.9	0.6	100	239	2.39	3.5
Israel -Total	9.8	11.3	1.5	593	1026	1.73	2.2
Israel-Palestinians	3.1	5.4	2.3	29	96	3.31	4.8
Turkey	6.3	10.1	3.8	4126	8379	2.03	2.8
Yemen	2.5	3.2	0.7	435	1036	2.38	3.5
Saudi Arabia	3.0	7.3	4.3	619	2477	4.00	5.5
Gulf Principalities	2.5	10.4	7.9	206	1276	6.19	7.3
Iran	4.7	8.5	3.8	3001	6943	2.31	3.4
ALL	4.6	7.9	3.3	18393	43757	2.38	3.5

The southern shore is increasingly coming to resemble the northern shore. A marker for this is the demographic phenomenon which most concerns the north - ageing - which will gradually spread from shore to shore. The focus has been on the population explosion and its backlash has meant scant attention being paid to other effects of the demographic slowdown, especially ageing, regarded as a northern shore monopoly. But the at-present in 2000, very small elderly population - just 18.4 million region-wide - will increase 2.4-fold to 44 million in 2025, as the remainder of the adult and child population increases from 382 to 519 million, i.e., by less than 36% (table 2). While these 'non-old' population groups will grow at an average annual rate of 1.2%, the elderly population will soar at the rate of 3.5%. Ageing in the region (excluding the Jewish population in Israel) is fairly insignificant taken as a proportion of total population: on average 4.6% of people aged 65 and over, within a fairly narrow range band: from 2.5% (Yemen and the Gulf States) to 7.4% (Lebanon). By 2025, the region will have to deal with this new fact of life: about 8% people aged 65 and over, ranging from 3.2% (Yemen) to over 10% (Tunisia, Lebanon, Israel, Turkey and the Gulf States). But even social security systems are hard-pressed to keep pace with the rapidly-rising elderly population, the family will still in the medium term be the main provider of essential needs for older people through extended households, frequent get-togethers with children, cash and kind gifts¹. The benefits of fertility transition will not be called into question within the next two or three decades, therefore.

Arguably, a summary indicator like the proportion aged 65 and over in the population is not a sufficient marker for the concept of ageing. In the mid-20th century, it was reasonable to describe someone aged 65 and over as elderly. Thanks to rapid medical progress and healthier lifestyles, this is increasingly a misnomer now, and will even more so by 2025. Lagging by some generations, the south will have to contend with the same problems as the north - frailness, lack of residential care provision - while governments try to walk away from the problem by shifting the burden to the family. The progressive nuclearization of families resulting from westernized lifestyles is another point of growing similarity between the shores. But with ageing only in its early stages, pension funding will be less of an acute problem than in Europe, and unlikely to pose an early challenge to the expected benefits of age-structure deformation.

The most salient results of this forecast compared to the most recent UN forecast are summarized in table 3.

¹ This is the finding of a simulation conducted on the data from a national family survey in Morocco, Youssef Courbage, "Solidarité entre les générations à l'épreuve de la modernité", in CERED, *Population et développement durable au Maroc*, Rabat, 1998.

Table 3. - Population growth to 2025: two forecasts compared

Country	UN OVER/UNDER ESTIMATE											
	THIS FORECAST			UN 2000 FORECAST			In 2000		In 2025		Growth 2000-2025	
	2000	2025	Growth	2000	2025	Growth	Size	%	Size	%	Size	%
Morocco	28548	38663	10115	30130	42440	12310	1582	5,5	3777	9,8	2195	21,7
Algeria	30388	42012	11624	30291	42738	12447	-97	-0,3	726	1,7	823	7,1
Tunisia	9561	11870	2309	9459	12343	2884	-102	-1,1	473	4,0	575	24,9
Libya	5187	7509	2322	5290	7972	2682	103	2,0	463	6,2	360	15,5
Mauritania	2488	3285	797	2665	5351	2686	177	7,1	2066	62,9	1889	237,0
MAU	76172	103339	27167	77835	110844	33009	1663	2,2	5842	5,7	5842	21,5
Egypt	63467	88252	24785	67884	94777	26893	4417	7,0	6525	7,4	2108	8,5
Sudan	30282	42513	12231	31095	49566	18471	813	2,7	7053	16,6	6240	51,0
Nile basin	93749	130765	37016	98979	144343	45364	5230	5,6	13578	10,4	8348	22,6
Syria	15654	24285	8631	16189	27410	11221	535	3,4	3125	12,9	2590	30,0
Lebanon	3396	4040	644	3496	4581	1085	100	2,9	541	13,4	441	68,5
Iraq	22062	33220	11158	22946	40298	17352	884	4,0	7078	21,3	6194	55,5
Jordan	4774	8028	3254	4913	8666	3753	139	2,9	638	7,9	499	15,3
Palestine	3074	6110	3036	3191	7145	3954	117	3,8	1035	16,9	918	30,2
Israel	6060	9119	3059	6040	8486	2446	-20	-0,3	-633	-6,9	-613	-20,0
Northern Middle East	55020	84802	29782	56775	96586	39811	1755	3,2	11784	13,9	10029	33,7
Yemen	17654	32603	14949	18349	48206	29857	695	3,9	15603	47,9	14908	99,7
Saudi Arabia	20346	33907	13561	20346	40473	20127	0	0,0	6566	19,4	6566	48,4
Oman	2538	4830	2292	2538	5352	2814	0	0,0	522	10,8	522	22,8
UAE	2606	3096	490	2606	3284	678	0	0,0	188	6,1	188	38,4
Kuwait	1914	2873	959	1914	2974	1060	0	0,0	101	3,5	101	10,5
Bahrain	640	792	152	640	858	218	0	0,0	66	8,3	66	43,4
Qatar	565	673	108	565	779	214	0	0,0	106	15,8	106	98,1
Arabian Peninsula	46263	78774	32511	46958	101926	54968	695	1,5	23152	29,4	22457	69,1
Turkey	65868	82939	17071	66668	86611	19943	800	1,2	3672	4,4	2872	16,8
Iran	63467	82139	18672	70330	99343	29013	6863	10,8	17204	20,9	10341	55,4
ALL	400539	562758	162219	417545	639653	222108	17006	4,2	76895	13,7	59889	36,9
Mediterranean countries	231203	314799	83596	238638	334503	95865	7435	3,2	19704	6,3	12269	14,7
Arab world	265144	388561	123417	274507	445213	170706	9363	3,5	56652	14,6	47289	38,3

Because there is little to choose between the two scenarios for most countries, but the first is most likely (except perhaps for Palestine, maybe Egypt), that is used here. In 2000, the re-evaluated baseline populations (and short-term growth) give a total population of 400 million (rather than the UN's 417, a 4% in excess), 231 million (UN: 239 million) for the Mediterranean shore countries, and 265 (UN: 275 million) for the Arab countries (cf, notes to tables 1 and 3). By 2025, the gap between these two forecasts is extremely significant both region-wide at 563 rather than 640 million, as well as for the Mediterranean (315 instead of 335 million), and Arab (389 instead of 445 million) components. In 1998, UN's overestimation as compared to our forecasts was much smaller : 37 million (and 80 million in 1996). Why these puzzling ups and downs in UN forecasts? The main reason is their distrust about the abilities of these societies to sustain a steady fertility transition which might ultimately lead to fertility rates close or even below replacement levels. In this sense, the year 2000 UN forecasts are more conservative and hesitant than the previous biannual forecasts of 1998, which marked a breakthrough in the UN vision of fertility transition in the Arab countries, in Iran and in the southern shore of the Mediterranean (table 4).

Table 4: Comparison of UN 2000 fertility estimates, these estimates and US Bureau of the Census (for 2020-25)

Country	Population Division						This forecast						Average Over/ undersetimation	US Bureau of the Census
	95-00	00-05	05-10	10-15	15-20	20-25	95-00	00-05	05-10	10-15	15-20	20-25	By the UN 1995-2025 (%)	2020-2025
Morocco	3,40	3,03	2,70	2,29	2,10	2,10	2,91	2,58	2,32	2,14	2,02	1,97	11,4	2,13
Algeria	3,25	2,79	2,30	2,10	2,10	2,10	3,08	2,44	2,17	2,11	2,10	2,10	4,3	2,02
Tunisia	2,30	2,10	2,10	2,10	2,10	2,10	2,37	1,90	1,73	1,70	1,68	1,66	17,5	1,70
Libya	3,80	3,31	2,80	2,34	2,10	2,10	3,25	2,57	2,19	2,10	2,10	2,10	14,2	2,42
Mauritania	6,00	6,00	5,80	5,27	4,80	4,29	3,69	3,09	2,59	2,23	2,10	2,10	108,5	4,35
Egypt	3,40	2,88	2,40	2,10	2,10	2,10	3,33	2,78	2,40	2,22	2,13	2,10	-0,1	2,13
Sudan	4,90	4,47	4,00	3,61	3,20	2,75	3,82	3,33	2,90	2,53	2,23	2,10	36,3	2,93
Syria	4,00	3,65	3,30	2,96	2,60	2,27	3,90	3,32	2,84	2,53	2,32	2,18	10,4	2,30
Lebanon	2,29	2,18	2,10	1,96	1,90	1,90	2,14	1,82	1,69	1,69	1,69	1,69	15,4	1,73
Iraq	5,25	4,77	4,30	3,80	3,30	2,83	4,20	3,73	3,31	2,94	2,61	2,32	27,0	2,80
Jordan	4,69	4,31	3,90	3,55	3,20	2,80	4,11	3,74	3,41	3,12	2,85	2,61	12,9	2,03
Palestine	5,99	5,60	5,20	4,82	4,40	4,05	5,97	5,28	4,67	4,13	3,65	3,22	13,6	2,82
Israel	2,93	2,70	2,50	2,22	2,10	2,10	2,93	2,82	2,77	2,69	2,61	2,54	-11,3	2,04
Yemen	7,60	7,60	7,40	6,85	6,40	5,85	6,19	5,33	4,64	4,16	3,82	3,52	54,0	4,94
Saudi Arabia	6,15	5,54	5,00	4,51	4,10	3,61	4,39	3,98	3,62	3,28	2,98	2,71	37,7	4,91
<i>Gulf States</i>	<i>4,23</i>	<i>3,85</i>	<i>3,52</i>	<i>3,24</i>	<i>3,01</i>	<i>2,87</i>	<i>3,51</i>	<i>3,05</i>	<i>2,65</i>	<i>2,31</i>	<i>2,13</i>	<i>2,10</i>	33,1	<i>2,85</i>
Turkey	2,70	2,30	2,10	2,10	2,10	2,10	2,47	2,20	1,99	1,82	1,72	1,68	13,8	1,72
Iran	3,20	2,76	2,30	2,10	2,10	2,10	2,50	1,97	1,80	1,70	1,66	1,65	29,1	1,87

Present and projected fertility have been exaggerated in the UN 2000 forecasts almost everywhere. The two sets of forecasts are very close for Algeria and Egypt only. Reasonable "exaggeration", may be found in Morocco : +11,4% of the average fertility in 1995-2025, Tunisia : +17.5%, Libya : +14.2%, Syria : 10.4%, Lebanon : +15.4%, Jordan : +12.9%,

Palestine : +13.6% and Turkey : +13.8%. However fertility levels, present and projected, which are at odds with recently observed fertility levels and trends are the majority namely in Mauritania : +108.9%, Sudan : +36.3%, Iraq : +27%, Yemen: +54%, Saudi Arabia : +37.7%, the Gulf States: +33.1% and Iran : +29.1%. The only case where UN fertility estimates are lower is Israel :-11.3%. This forecast assumption, derived from those of the Central Bureau of Statistics, are that replacement level would not be attained for the country as a whole in 2025 (and neither for the Jews, nor for the Palestinians).

One of the reasons of the divergence in these two sets of forecast is, except for Lebanon, the reluctance of the UN to accept that Arab, Turkish or Iranian fertility might go down below replacement –level, while we think that this will be the case for a number of countries such as Morocco, Tunisia, Lebanon, Turkey and Iran. Interestingly, the US Bureau of the Census, contrary to the UN, ratifies this assumption for Tunisia, Algeria, Lebanon, Turkey and Iran².

A comparison of the anticipated growths for 2000-2025 produced by these two forecasts is particularly illuminating: a region-wide increase of 162 million instead of 222 million – the difference 60 million, is the population of Egypt! -; for the Mediterranean, 84 million rather than 96 million; for the Arab countries, 123 million instead of 171 million. In other words, this new forecast revises the regional growth picture sharply downwards - a difference of 60 million compared to UN over 2000-2025 and 37% lower all-region growth, 15% less for the Mediterranean countries and 38% less for the Arab countries.

Even so, the assumptions are highly cautious. But below-replacement declines could quite easily have been incorporated more generously and at higher paces. Many groups of women who have been through - increasingly widespread - secondary education have below-replacement period fertility rates, which we have stabilised instead of letting them decline. Countries like Morocco, Algeria, Tunisia, Lebanon, Turkey, and Iran are now the bellwethers of a change in attitudes set to spread region-wide.

The present revision is predicated on substantively increased - especially female - enrolment ratios. It posits³ an increase in educational provision and grade attainment in line with recent trends. It is a conservative assumption. Parents now find school attendance as normal as vaccination, so imperative that back-tracking is out of the question. Parents are ready to make almost any sacrifice to educate their children - sometimes privately - even in adverse macro-economic circumstances of widespread graduate unemployment⁴. So great is the pressure on governments that universal education for boys and girls now tops the agenda in countries where it is not yet the rule, like Morocco, for example. Signally, for this country, the World Bank has imposed both a structural adjustment programme (which could have eroded public spending on education) and a social priorities programme intended to universalize education provision within ten years. Female educational levels can be expected to rise significantly further, therefore, especially among reproductive-age women, leading to perhaps even more rapid fertility decline. Any resurgence in that fertility (nationally, or

² The same for the World Bank, see Ed Bos, *Options de politique démographique : application des options de Bongaarts à l'Algérie, au Maroc et à la Tunisie*, Document de travail, Banque Mondiale, Washington, 1996.(Ed Bos, *Population policy options: application of the Bongaarts options to Algeria, Morocco and Tunisia*, Working paper, World Bank, Washington, 1996).

³ Where the full methodology was applied, by women's education level.

⁴ Direction de la Statistique, Cered, *Enquête Nationale sur la Famille 1995. Structure, réseaux et principales dimensions des niveaux de vie de la famille*, Rabat, 1996.

among a particular group of women) could only be exceptional because the fertility decline process is uncoupled from its primary cause⁵. Even when educated women do not enter the labour force, fertility may continue to decline as in Algeria, which combines low fertility with one of the region's lowest female labour force participation rates.

2. Implications

What are the implications of these new forecasts for the southern Mediterranean? They may be both political and economic, but there is no general agreement on this. It could be argued that population growth will be impervious to political developments and economic growth-neutral, that regional economies will automatically adapt to their future population sizes, whether the population growth in the next 25 years 2000-2025, be 222 million people (UN) or 162 million (this forecast). On the other hand, it is more reasonable to assume that differential population growths, population sizes and structures will have significant political and economic impacts. This is plain to see for jobs. Population growth will also affect quality of life through its pressures on the environment, water resources and even the climate.

a) Future growth: more convergences than divergences

Population processes will differ from country to country. Algeria's demographic past, for example, was unlike that of Tunisia and Morocco; because of its later-onset transition, that will be in evidence on its population in the years to come. Hence, its population size in 2025 will be larger than Morocco's one. There is now a consensus, that Palestinians in the autonomous and occupied territories, and those citizens of Israel, who have shunned transition notwithstanding its objective benefits, could continue to pursue a "militant" population policy, resulting in more rapid population growth than elsewhere. However, in these countries, rapid fertility decline is the most likely scenario for the coming decades. Rising female and urban educational levels, the slowdown in rent-seeking economies as a result of falling oil and gas prices and rising populations, are all factors, "general trends", tending to reduce desired family sizes. But globalizing attitudes are a contributing factor almost impervious to all these socio-economic and cultural factors. The image of the modern family conveyed by region's abundant media no longer portrays children as the source of all happiness.

Differential intra-regional population processes on the southern shore have now and then given rise to tensions. Countries with growth rates outstripped by those of their neighbours could see a potential threat. Nor was there any need for sophisticated impact studies, because

"where the effects of demography on conflicts are concerned, it is clear that the perception is more important than the reality; the way in which trends are perceived is more meaningful than the actual trends themselves"⁶

In future, such cases will be purely exceptional.

⁵ The "ratchet effect", Yves Montenay, *Démographie politique des pays arabes d'Afrique*, Université de Paris_Sorbonne, 1994.

⁶ Michael Poole, "The demography of violence", in J. Darby (ed.), *Northern Ireland _ The Background to the Conflict*, Belfast, AppleTree Press, 1983.

Algeria's population growth has slowed down since 1986 to the point where it can no longer be seen as a threat by its neighbours, although it may have some 4 million more people than Morocco in 2025. At the other end of the scale in the Union of the Arab Maghreb, there is no doubt that the new demographic reality of Libya, and the fact that in 2025 it will have 7.5 million people instead of 13 million will be likely to reassure Tunisia such that less troubled, more tranquil neighbourly collaboration can resume. The export of Islamic fundamentalism is key in the strife between Sudan and Egypt, but even more so is the threat to the Nile waters which the former poses to the latter. Obviously, water requirements are proportionate to population size. The UN projects Sudan's growth outpacing that of Egypt, from 45,8% in 2000 until it exceeds half its population in 2025 (52%). This forecast is more balanced, however, no noticeable deterioration of the balance of population between the two neighbours is observed. Sudan's population ratio to Egypt will level-off at 48%. Surprisingly, the geopolitical impact of Egypt's late demographic transition could well improve its relations with its southern neighbour.

Egypt and Turkey, with almost similar population sizes, are the joint demographic leaders of the southern shore of the Mediterranean, while equally-populous but more oil-rich Iran is marginalized on two counts: by its geographical position and its Shiite Islam beliefs. Turkey's outsider status (a non-Arab, Muslim country) is made up by a much more dynamic economy and its opening towards ethnically Turkish Central Asia. Now that the question of enlarging the permanent members of the United Nations Security Council to other countries is open, with a fairer geographical balance, the southern Mediterranean will naturally want to be in the running. The country in pole position will need to combine a number of assets, including population size. At a pinch, Germany could conceivably be allowed into the great nations' club, despite its comparatively small population size (100 million for the sake of argument), on the strength of its other assets. That does not apply to the southern countries, where the demographic argument is more decisive. Egypt, certain to top the symbolic 100 million bar by the 2030 decade, or even before in the likely event of return migration, will be better placed than Turkey, whose population growth will not give it more than 98 million people by the turn of the next century. Also surprisingly, Turkey's early entry into a post-transitional stage could marginalize it on the regional political scene. This explains the warning sounded by former Prime Minister Necmettin Erbakan of the Islamist Refah Party:

“Our population which is nearing 65 million is not enough ... population is the power by which we shall establish right in the world. These would-be westerners (proponents of family planning) are trying to reduce our population. We must have at least four children”⁷.

Its late-onset transition will add some 9 million people - about 55% of the population more - to Syria's total from 2000 to 2025, whereas neighbouring Turkey, will only grow by 26%. While this population gap is unlikely to be a source of conflict *per se*, it could loom behind issues over the division of water resources, from the Euphrates in particular. Syria's special relationship with low-population, low-labour supply Lebanon allows it to temporarily export a significant part of its own labour surplus which the home market cannot absorb. There are approximately between half a million and a million Syrian workers in Lebanon, depending on the source of estimation. But more than that - and this is where the Israeli-Arab question is central - Syrian population growth cannot be left out of Israeli strategic equations. In Israel's first 52 years of existence the Jewish population (717 000 in 1948) increased

⁷ Yeni Yüzul, 27 février 1995.

sevenfold, while Syria's population grew rapidly, but at a lower multiple of 4.5. By 2025, Syria will have added 55%, but Israel's Jewish population much less than previously : 43%, in spite of sustained fertility and Jewish immigration. This slower rate of Jewish growth will take place within an all-Middle East higher-growth scenario, especially among Palestinians, be it those of Israel (87% increase, highly concentrated in a single region of the country, Galilee), the still largely-occupied Palestine proper (99%), or Jordan (68%).

Further south, the growth differentials between Yemen (85%) and Saudi Arabia (67%) - which includes apart of the large number of foreigners, a large minority of Yemeni-origin population namely in the disputed Assir region - mark the demographic fault lines in the Arabian Peninsula.

b) Labour force accessions: a decade's unstoppable growth ending in a sharp decline:

Fertility decline will not cut across the Mediterranean countries' continued growth potential at the turn of the 21st century and beyond, due to demographic inertia or momentum; population growth is determined by the combination of its intrinsic dynamics - fertility - and the size of the childbearing age population, which will remain high in the future.

This is illustrated by table 5, which ranks countries in ascending order by growth rate up to 2020-2025. Even the most advanced countries – except Lebanon - will maintain significant growth rates of over 5 per 1000 up to 2020-2025 : Turkey, Tunisia, Iran and Morocco. Mauritania and Sudan's low rates reflect a continuing high death rate. The laggards - Palestine and Yemen - with growth rates of 22 per 1000 could still double or even triple their populations after 2025. While such high rates could conceivably undermine social and economic development, this is less clear-cut for growth rates in the region of 10-15 per 1000, which is the case for most of the countries studied. Obviously, they mean a significant level of demographic investment, but could prove more economically energizing than a stationary population. One key to the success of the Far East economies is to have combined a moderate current population growth with a past high rate of natural increase⁸. Commentators now readily refer to a “demographic window of opportunity” or a “demographic gift”, because in the coming decades, the southern shore of the Mediterranean will acquire the same demographic profile as successful Asia. The demographic gift will be that a larger share of the population will be economically active (between 15 and 64 years of age), thereby increasing the labour force, capital accumulation and per capita GDP⁹.

⁸ Robin Barlow, “Population growth and economic growth: Some more correlations”, *Population and Development Review*, Vol. 20, 1, March 1994.

⁹ Jeffery Williamson and Tarik Yousef, “Demographic transitions and economic performances in the Middle East and North Africa”, *Conference on Population Challenges in the Middle East and North Africa: Towards the Twenty First Century*, Economic Research Forum, Cairo, November 1998.

Table 5. - Rate of natural increase (per 1000) in 2020-2025

Country	Rates
Lebanon	4,7
Turkey	6,2
Tunisia	6,5
Iran	7,3
Morocco	9,6
Gulf Principalities	9,8
Mauritania	10,1
Sudan	10,2
Egypt	10,3
Algeria	11,2
Libya	11,6
Israel	12,5
Syria	13,2
Iraq	13,2
Saudi Arabia	15,2
Jordan	16,1
Yemen	21,5
Palestine	22,4

These population forecasts are portrayed in terms of labour force entrants in table 6. In the medium-term, i.e. within the next 10 years, slackening population growth will have little effect on the increase in labour force entrants. Today, the region-wide annual gross total of new labour force entrants (both sexes) is 8.2 million. This will climb to nearly 10 million by 2005-2010, i.e., a 21%-plus increase in 10 years. Less retirement exits (estimated at a fifth of 65-69 year-olds), net accessions¹⁰ will rise by 7 to 8.2 million individuals, but less quickly (18%) than gross labour market entrants due to gradual shifts in the age structure which is already showing an encouraging trend for employment. This will pile on the pressure in the 10 next years, of that there is no doubt. The situation will ease after 2005-2010, up to 2020-25, when both the gross and net number of labour force entrants will decrease substantially: from 9.9 to 8.8 million (-12%) for the former, and from 8.2 million to 6.0 (-26%) for the latter.

¹⁰ Caution is required as the indicator used to measure the impact of future population increase on labour supply is often misleading because most estimates refer only to *accessions* (a fifth of the 15-19 age bracket) without deducting *exits*. Including the latter (a fifth of the 65-69 age bracket) closes up the turning point of the job seekers' curve, thus giving a more realistic picture of the annual number of new jobs needed.

Table 6. - Labour force accessions and exits (thousands) from 2000 to 2025

Country	2000- 2005	2005- 2010	2010- 2015	2015- 2020	2020- 2025
MOROCCO					
Accessions	643	643	607	569	581
Exits	122	115	137	146	221
Balance	521	528	470	423	360
ALGERIA					
Accessions	743	754	691	606	575
Exits	110	118	123	150	209
Balance	633	636	568	456	366
TUNISIA					
Accessions	211	215	195	163	148
Exits	47	48	48	54	76
Balance	164	167	147	109	72
LIBYA					
Accessions	127	116	100	123	121
Exits	14	24	19	24	24
Balance	113	92	81	99	97
MAURITANIA					
Accessions	60	62	70	50	50
Exits	8	8	9	12	15
Balance	52	54	61	38	35
EGYPT					
Accessions	1523	1472	1301	1414	1395
Exits	245	243	324	426	502
Balance	1278	1229	977	988	893
SUDAN					
Accessions	757	799	698	688	730
Exits	125	105	108	142	143
Balance	632	694	590	546	587
SYRIA					
Accessions	420	445	425	389	392
Exits	38	56	57	88	95
Balance	382	389	368	301	297
LEBANON					
Accessions	68	64	61	56	51
Exits	19	23	20	22	29
Balance	49	41	41	34	22
IRAQ					
Accessions	500	586	592	505	541
Exits	59	72	88	109	134

Balance	441	514	504	396	407
14					
JORDAN					
Accessions	112	115	123	130	144
Exits	13	16	21	21	25
Balance	99	99	102	109	119
PALESTINE					
Accessions	64	80	96	108	119
Exits	8	8	9	12	15
Balance	56	72	87	96	104
ISRAEL -TOTAL					
Accessions	106	117	124	134	139
Exits	35	38	36	51	64
Balance	71	79	88	83	75
ISRAEL -PALESTINIANS					
Accessions	19	21	26	29	33
Exits	2	3	4	4	6
Balance	17	18	22	25	27
TURKEY					
Accessions	1458	1323	1148	1300	1305
Exits	355	370	412	422	545
Balance	1103	953	736	878	760
YEMEN					
Accessions	372	453	527	587	610
Exits	39	46	52	61	71
Balance	333	407	475	526	539
SAUDI ARABIA					
Accessions	444	511	580	479	548
Exits	54	69	91	128	180
Balance	390	442	489	351	368
GULF PRINCIPALITIES					
Accessions	171	207	213	172	177
Exits	20	30	44	68	94
Balance	151	177	169	104	83
IRAN					
Accessions	1784	1662	1190	1139	1112
Exits	246	231	251	328	459
Balance	1538	1431	939	811	653
TOTAL					
Accessions	9563	9624	8741	8612	8738
Exits	1557	1620	1849	2264	2901
Balance	8006	8004	6892	6348	5837

Fertility transition has started to affect significantly labour force accessions, for the most advanced countries (Morocco, Algeria Tunisia, Turkey...). The number of entrants in the labour market is levelling off or slightly decreasing, whereas the number of exits is soaring. Once that process gets under way, it is so rapid that it could create problems of shortages of the labour force. In Algeria, for example, which epitomises some way or another the labour crisis problem in the region, between 2000-2005 and 2020-2025, net labour force accessions will nearly halve from 633 to 366 000. In Tunisia and Lebanon and even in Iran, labour market shortages might be even more serious, with net accessions diminishing by more than a half in just 25 years. In Morocco, in Egypt and in Turkey will experience reversal of trends but of smaller magnitude. In Syria, the labour market will likewise be tight up to 2005-2010, then ease off, but to a lesser extent than in Egypt. Meanwhile, Lebanon's labour force entrants will have more than halved from 49 to 22 000 over the forecast horizon.

In two or three countries, no such trend is expected. For Palestinians, Palestinians in Israel and in Jordan, there will be an inexorable rise over the period: from 64 000 at present in 2000-2005, annual new labour force entrants will double to 119 000 into 2020-2025 in Palestine (net entrants will also double)¹¹. This reveals the full strategic importance of the Israeli labour market being opened or closed to Palestinians. There will be similar, and perhaps competing, steady growth for the labour force entrants of the Palestinians citizens in Israel. In Yemen, too, annual new labour force entrants will rise over the period from 372 000 to 610 000 by 2020-202, and, net entrants from 333 to 539 000. For this poor country, the - disputed - oil reserves on the Saudi border and the possibility of resuming emigration towards its wealthy northern neighbour, halted and reversed after the Gulf War (1990-1991), assume overarching importance, thrown into sharp focus by its prospective economically active population¹².

What of female labour force participation? This variable, which could affect the rate of transition, remains very much an unknown quantity. It is significant that the most recent International Labour Office forecasts of female labour force participation rates date back more to 1988, so hard is it to frame forecasts for such a volatile phenomenon. Information on female labour force attachment is very patchy. The ludicrously small female labour force participation reported by census returns is contradicted by the observed facts. This is a sociological and cultural reality: in a census, the head of household, usually a man, often fails to report his wife's contribution. Unless she is daily to be found in a public workplace outside the home, she is regarded as an economically inactive homemaker. The scale of such underestimation is low in towns, except in the craft industry which is often home-based. But in the countryside, productive and home-making activities are so intertwined that there is significant underestimation. Time budget surveys, like those in Morocco and Egypt, can be used to correct this distorted picture of women home-makers, which simply reinforces certain deeply-entrenched stereotypes in the region.

The overall female participation rate gives a misleading picture of female participation because it does not differentiate young from older generations. The 25-29 age group participation rate is a better marker for recent trends¹³ (table 7).

¹¹ Here, meaning the currently annexed, occupied or autonomous territories of the West Bank, East Jerusalem and Gaza.

¹² Recent data show that Yemeni immigration to Saudi Arabia has resumed, although at a lower scale. In 1998, the Saudi Chamber of Commerce released the figure of 424 000 Yemenis residing in the Kingdom.

¹³ Agriculture would have to have been excluded to give an accurate picture of the female participation rate in the more modern sectors of the economy, but such data is rarely available. It is notable in this connection that two highly agricultural countries - Mauritania and Sudan - have quite high female participation rates.

Table 7 . - Female participation rate (%), 25-29 years of age - 1995-2025

Country	1995	2000	2010	2020	2025
Morocco	27.9	31.4	40.4	44.5	46.0
Algeria	10.9	12.2	15.7	20.2	23.1
Tunisia	33.8	35.5	38.8	41.0	41.7
Libya	12.8	14.4	18.5	23.8	27.2
Mauritania	30.4	34.2	44.0	46.1	48.3
Egypt	19.0	21.4	27.6	35.4	40.5
Sudan	29.1	32.8	42.1	43.2	45.0
Syria	21.4	24.1	31.0	39.8	45.5
Lebanon	39.4	40.2	41.4	42.2	42.6
Iraq	30.2	34.0	35.5	36.7	37.1
Jordan	20.6	23.2	29.8	38.3	43.8
Israel -Total	54.7	55.4	56.4	57.1	57.4
Turkey	47.6	49.5	54.7	59.3	60.8
Yemen	11.8	13.2	17.0	21.9	25.0
Saudi Arabia	14.7	16.5	21.3	27.4	31.3
Kuwait	44.0	49.5	49.7	49.9	50.0
UAR	32.3	36.4	36.8	37.1	37.3
Oman	15.1	17.0	21.9	28.2	32.2
Qatar	31.0	34.9	35.2	35.4	35.4
Iran	25.7	28.9	37.2	47.9	54.7
ALL	27.6	30.2	34.8	38.8	41.2

Source : United Nations, *World Demographic Estimates and Forecasts, 1950-2025*, New York, 1988.

The first thing to say is that the linkage between economic growth and female labour force participation is an ambivalent one. The all-region participation rate (all sectors) for young women aged 25-29 is forecast to rise by approximately 50% over the next 30 years; but is wealth or poverty the driving force? Sustained economic growth would boost young women's employment. But a harsher economic climate could encourage women into the job market to alleviate falling family purchasing power. The UN projects widely-varying female labour force participation rates around a regional average of 4 in 10 economically active women by 2025. These will be widest in Turkey (61%), and even Iran (55%) and Israel (57%, with significant differences between Jewish and Arab women), and less so in Morocco (46%), Tunisia (42%), Egypt (41%) and Syria (45%). Bringing up the rear will be Saudi Arabia (31%), Yemen (25%) and especially Algeria (23%) with the lowest female participation in the economy in the Arab and Mediterranean world.

c) Dead-ends and open roads for getting young people into the labour market

Pressures on Palestine and Yemen will be very high, less acute elsewhere, and tapering off after the first decade of the 21st century, up to when the number of young job-seekers will rise inexorably region-wide. Will it be able to cope? Recent thinking offers little cheer if the Council of Europe Conference on demographic imbalances in the Mediterranean (Palma, October 1996) is anything to go by:

“Social tensions are likely to rise with the growing socio-economic crisis and obstacles in the path of effective political change. Paradoxically, the current regimes are paving the way for a reactionary fundamentalism ... (What is needed) is for a bigger share of industrialized countries’ GNP to be allocated to development assistance, and new sources of income found to fund it ... (otherwise) Europe-bound migration is set to be a lasting phenomenon”¹⁴.

“The probabilities of a labour deficit are insignificant for most receiving countries ... the productivity gains more than make up for the contraction in the working population”¹⁵.

“This means that by the (demographic-economic) model forecast date, free trade may not be an alternative to migration ... and like the opening up of markets, direct foreign investment may initially act to encourage emigration”¹⁶.

“Without a mass influx of foreign capital, initially as direct investment, establishing the free trade area could have negative effects overall. In fact, the main interest for the southern Mediterranean countries in establishing a free trade area would be to turn the area into a bigger magnet for direct foreign investment. (As it is) the southern and eastern Mediterranean currently attract one of the lowest levels of foreign investment in the world”¹⁷.

“If the ruling elites of the southern and eastern Mediterranean countries fail to take on board the urgent need for better income distribution and to move from a rent-seeking economy to a sophisticated industrial economy, destabilizing migration will go on, and the envisaged partnership is likely not to pay off”¹⁸.

“Far from generating progress in the economies which most need it, private direct investment is in search of higher and safer profits in prosperous countries. No sea change is to be looked for in the immediate future”¹⁹.

¹⁴ Nader Fergany, “Dynamics of demography and development in the Mediterranean basin : implications to the potential of migration to Europe”, *Mediterranean Conference on Population, Migration and Development*, Palma de Mallorca, October 1996

¹⁵ Serge Feld, “Immigration, demographic trends and the labour market”, *ibid.*

¹⁶ Georges Tapinos, “Development, cooperation and international migrations: the European Union and the Maghreb”, *ibid.*

¹⁷ Habib el Malki, “The economic implications and challenges of Euro-Mediterranean partnership”, *ibid.*

¹⁸ Georges Corm, “ A historical review of economic development in the Mediterranean region : past and present”, *ibid.*

¹⁹ Mohammed El_Imam, “New Strategies for Development Cooperation”, *ibid.*

Experts in the North and South alike have doubts about young people's labour market integration, some expressed overtly, others in coded terms. Spectacular - and sometimes far-fetched - remedies have been recommended. Southern elites must be proactive, renounce their conspicuous wealth and relinquish the South's predominant model of the rent-seeking economy which keeps the reins of political power in their hands. The Northern countries are exhorted to pour more aid and investment into countries whose unprofitability and major political risks makes them an unattractive proposition. The push-button solution of free trade may make things worse rather than better. Finally, Europe does not need any more immigrants.

If they cannot break into the local labour market, how will they fare abroad? One view is that labour migration, currently limited by measures taken in the receiving countries (Europe and the Arabian Peninsula), will be given a fresh impetus by the population explosion in the South. Most will be illegal under the guise family reunification facilitated by the present sex-age structure imbalance of immigrant communities in Europe. But while the push factors to reactivate migration are there, the pull factors are not yet there. Until very recently, it was usually considered that the working population of Europe's formal economy does not need any more immigrants, its female labour pool is enough. Productivity gains are marginalizing whole swathes of indigenous labour, as well as first- and later-generation immigrants, all prey to high unemployment. Only declining economic sectors might still resort to foreign labour to stay in business. The end of migration, was therefore considered as an inevitability.

However since the last decade, there is no more a general consensus on this view, with Northern experts themselves uncertain on the matter²⁰. There is more and more discussions on the usefulness of replacement migration, as a solution to declining and ageing population, namely in Europe²¹. An article published in the first position in one of the issues of the authoritative *Population and Development Review*²², shows the irreversible decline of the labour force in some European countries, first and foremost Germany, where labour force is expected to shrink from 40 to 28 million between 2000 and 2030, without new waves of immigrants, then Italy, from 23 to 16 and Spain, from 17 to 13. France and Britain being somehow more preserved, with a decline of "only" 2-3 million in each country. Hence, a new chance for reactivating migration from the southern shore of the Mediterranean to its northern one.

And yet that is not the problem. Under no circumstances can emigration, however low or high, be an alternative to home markets. Consider the replacement migration forecasts for the main receiving countries, those of the 15 countries of the European Union. According to the UN Population Division, the total number of migrants required in 2000-2025, should be 15.3 million, just to maintain a constant population and 34.5 million, just to maintain a constant working-age population²³ (table 8). These figures are plausible. More sustained European economic growth, deformation of the age structure, the mass arrival of baby-boomers at

²⁰ Bernd Hof, "Rapports structurels entre l'immigration, l'évolution démographique et le marché du travail en Europe", *ibid.* See also, Ricardo Faini, "Is Europe Under Siege? Migration prospects and migration policies in an integrated Europe", University of Brescia, 1996 (Unpublished manuscript).

²¹ Population Division, *Replacement migration*, United Nations, New York, 2000.

²² Peter Mac Donald and Rebecca Kippen, « Labor supply prospects in 16 developed countries, 2000-2050 » *Population and Development Review*, Vol.27, N°1, March 2001.

²³ The third scenario, which maintains a constant ratio between the 15-64 years of age and those 65 years and over, gives absurd results : 214 million immigrant required in 2000-2025, for a total population of the European Union of 375 million in 2000.

retirement age, are now tempting Europe to leave its doors ajar to larger numbers of emigrants to shore up the population pyramids undermined by ageing. The surplus labour would not be easily absorbed by industry and the hi-tech tertiary sector as productivity gains free employers from the need to take on extra staff. Lagging sectors, on the other hand, would be more prone to recruit unskilled Arabs from the Maghreb and increasingly from the Middle East, Turks and Iranians, but could also turn to other sources of labour (China, Sri-Lanka,...). New windows of opportunity could open in low productivity sectors to address the problems of ageing amongst others: ancillary medical professions, close-to-home services,... But this additional labour might not be enlisted until around 2010, just when these countries begin reaping the benefit of their fertility decline and have less need to export workers. Be that as it may, southern Mediterranean migrant labour could find itself in competition with Asian or East European labour on economic, or “civilizational” grounds. Traditional Europe-bound emigration may only be of marginal importance, therefore.

**Table 8 : Impact of replacement migration 2000-2025 in the UE on the population growth
Of the southern Mediterranean region
(thousands)**

	Variant	
	Constant total population	Constant age group
Total number of Migrants required	15290	34502
From the region		
15%	2294	5175
35%	5352	12076
Expected Growth	162219	162219
Proportion of Migrants to Population growth	1,4 3,3	3,2 7,4

Of course not all immigrants to the European Union will come from the Southern shore of the Mediterranean. Recent data show that they are a minority among immigrants in the EU, their share varying from a minimum of 15% (Germany) to 35% (France)²⁴. Incidentally these proportions show that the movements from the Southern to the Northern shore of the Mediterranean, sometimes considered as an invasion, has been overtly exaggerated. Since these two countries had and will still hold in the future the largest weight as far as immigration is concerned, we will consider these two proportions of 15 and 35% as the

²⁴ For Germany, data are taken from, Council of Europe, *Recent demographic development in Europe*, 2000, Strasbourg, 2000, Table D-6 « International migration », which provides net migration from 1995 to 1999, by citizenship. For the calculation of the proportion of immigrants originating from the Southern shore of the Mediterranean (Maghreb and Middle East), we have excluded those immigrants originating from another UE country, therefore considered as internal immigrants. For France, data taken from Table 6, Xavier Thierry, « Les entrées d'étrangers en France : évolutions statistiques et bilan de l'opération de régularisation exceptionnelle de 1997 », *Population*, Paris, N°3, 2000. The Netherlands is in the middle of the interval : around 25% of its net immigrants come from the Southern shore of the Mediterranean.

minimal and maximal proportions of foreign immigrants originating from the Southern shore of the Mediterranean.

Taking the UN scenario of replacement migration to the EU as plausible, namely 15.3 million immigrants at the lowest and 34.5 at the highest, and assuming a reasonable share of migrants from the Southern shore, the likely number of emigrants to the UE would vary from 2.3 million (15290 million multiplied by 15%) to 12.1 (34502*30%). Since the natural increase of the Southern shore of the Mediterranean will reach 162.2 million in 25 years, these immigration figures appear astonishingly modest in alleviating population growth in the region : a contribution varying from 1.4 to 7.4% in diminishing the natural increase.

The Arab oil-producing countries were more receptive to the labour-rich countries of the Middle East than those of the Maghreb for reasons of geographical and cultural proximity. Since the Gulf War, they have heightened the post-1986 oil price drop trend by slowing down Arab migration. This stems from partly from “national preference”, i.e., the - theoretical - replacement of foreign labour by national labour and - more practically - a preference for more submissive Asian labour which is less likely to put down roots. Saudi Arabia could receive some 750 000 immigrants only from 2000 to 2025, Kuwait and all the other wealthy Emirates - United Arab Emirates, Bahrain, Qatar and Oman – 670 000²⁵. This immigration, purely hypothetical in the current context of uncertainties about oil prices, economic recession and budget deficits, “national” preferences, or preferences for Asian labour, will avail immigration from the Arab countries (Egypt, Syria, Yemen,...) little if at all.

If international migration is a wrong track, the local market will be left to accommodate population growth and absorb the job-seekers. What is the track record of economies hard-pressed by strong population pressure? A population explosion has always been linked to an “unemployment explosion”. Point-in-time assessments of the future labour market balance - the product of total new jobs needed based on population growth and participation rate assumptions, and jobs actually created based on economic growth and labour productivity rate assumptions - are generally a lost cause from the word go, with unemployment fated to rise. Unemployment in Morocco, for example, rose from 8.8% to 10.7% between 1971 and 1982, less than might have been projected from econometric models factoring in the collapse of phosphate prices, an economic slowdown, structural adjustment, a growing national debt and rising interest payments. When, in 1984, labour supply and demand was projected on the basis of the 1982 census, (male) unemployment - then 10.7% - was fated to rise steadily. And rise it unquestionably did - 14.4%²⁶ in 1995 - but not by anywhere near the calamitous extent predicted by the labour force forecasts. An unemployment explosion was averted because society deployed its resources and adapted to the constraints of an economic recession. The family, amongst other things, helped cushion the shock by generating family employment²⁷, with fairly low-level investment, where the private formal sector and the State, denied its traditional job provider role by structural adjustment policies, had failed. Obviously, average labour productivity declined. But the creation of low-productivity jobs in an economic recession is essential, however debatable its strictly economic rationale, since it helps alleviate the failings of the modern sector and preserve the social fabric.

²⁵ United Nations, *World Population Prospects, The 2000 Revision, op. cit.*

²⁶ Direction de la Statistique, *Enquête nationale sur la population et l'emploi 1995. Activité et chômage en 1995. Premiers résultats*, Rabat, 1996.

²⁷ On family job creation, see, Mohamed Doudich, “Emploi, chômage et stratégies familiales au Maroc”, *Population*, 6, 1998.

But will the region's economies and societies be fated only to parcel out existing work, to generate "peripheral jobs"? A limit is quickly reached at which the marginal productivity of the additional workers is so low that under-employment is indistinguishable from unemployment, with zero production²⁸.

The economic prospects opened up by regional population dynamics mean that young job-seekers will not only face the choice of unemployment or under-employment. Demographic changes are setting processes in motion capable of energizing economic developments.

In most of the Arab countries and Iran - and to a lesser extent Turkey - economic growth has often had no linkage to growth in the economically active population. Increased wealth often owed nothing to growth in the labour supply, but had an exogenous source. Rising or falling raw materials, oil or natural gas prices more than the increase in the employed population and their labour productivity determined the changing fortunes of gross domestic product, and also of the prosperity (or poverty) of countries like Algeria, Libya, Saudi Arabia, the United Arab Emirates, Iraq (if it resumes crude oil pumping) or Iran. Prosperity in all the other countries was also oil price-dependent, but only indirectly in that their economies are linked to those of the first group of countries. Another exogenous constraint - rainfall - has been and sometimes remains decisive, as for Morocco or Syria, and its unpredictability lies behind their GDP fluctuations. Emigrant remittances of the order of 2.5 (Morocco) to 5.0 billion dollars (Egypt) are key components of the strength of the economic fundamentals of sending countries in the region, and depend in turn on the prosperity of the receiving countries. Invisible income from foreign tourist flows (and dues from Suez Canal traffic) contribute significantly to Egypt's, and to a lesser extent Lebanon and Jordan's, GDP.

In this context of outward-looking economic growth, some restraint in population growth, which has only a negative impact on per capita GDP is welcome²⁹. Algeria is a case in point, which is applicable elsewhere: here, GDP had grown at the very rapid average annual rate of 6.5% before the oil price drop of 1986. Even a population growth of 3.1% a year still left a substantial margin of per capita growth, such that average living standards rose. Barring a spectacular increase in real oil prices, which economists³⁰ rule out, sustained long-term economic growth is unlikely to materialize in the future. So, a slackening of the population growth rate down to under 1.6% in 1995, set to decrease to 1.1% by 2020-25, will push up average living standards, albeit modestly. In fact, a 2% or even less increase in GDP would be

²⁸ In the words of one of the most eminent specialists in the linkages between population increase and economic development, Geoffrey McNicoll: "Any economy offers a wide range of open_entry, low productivity occupations, for the most part entailing self_employment but with a minimal requirement for working capital. Handicraft production, micro_scale trading and arbitrage, and personal services of all sorts are the main areas of this activity, highly visible in most poor countries. *Such occupations are not indefinitely extensible...*" (Emphasis added). *Population and Development Review*, vol.10, June 1984 p. 208.

²⁹ « ...It is almost certainly right to assert that the world is too complex to permit one to find simple correlations between high fertility or rapid population growth on the one hand and poor economic performance on the other. But that truth does not erase the more subtle finding that high fertility, large numbers of dependant children in a family, and low capacity to invest in human capital can all pose serious challenges to poor households and poor countries », William Mac Greevy, Book review of Nicholas Ebarstadt, « Prosperous paupers and other population problems », *Population and Development Review*, Vol.27, N°1, March 2001.

³⁰ Including Nicolas Sarkis, who sees an oil price rise to US\$ 28 per barrel as essential for the Arab countries, but far from assured, "Les enjeux du pétrole arabe: grandes chances et grands risques pour les pays arabes", *Colloque international sur la sécurité arabe: défis actuels et perspectives d'avenir*, Casablanca, January 1996.

enough to maintain Algerian living standards which would have taken a severe knock had it maintained its past high population growth rates.

But the 'sound' deformations of the southern shore population age structures will also accommodate an expansion of the economic sphere.

Mass education has often been a financial bottomless pit, with mixed economic paybacks. Algeria, which has at times spent up to a third of its budget and a tenth of its GDP on education, is a case in point. But despite spending such huge amounts, there is still nothing resembling universal education here or in other southern shore countries. Female enrolment in particular is still lagging behind male rates. Strong population growth, the survivors of increasingly large cohorts reaching the age of 6 or 7, at annual growth rates of up to 4% or more, partly accounts for the still unfinished story of education in this region. Public spending on education as a percentage of GNP and the national budget is shown in table 9. Despite spending near or above the range of the northern shore developed countries (France, 5.8%, Italy 5.2%, Spain 4.7%, Greece 3.0%), the southern shore countries are lagging severely behind as regards the coverage and average duration (not to speak of the quality) of education. Demography has played its part in this imbalance between the size of education funding and the poor returns achieved.

Table 9. - Public spending on education as a share (%) of GNP and total budget

Country	Year	Share of GNP (%)	Share of budget (%)
Morocco	1994	5.4	22.6
Algeria	1994	5.6	17.6
Tunisia	1993	6.3	14.2
Libya	1985	7.1	19.8
Mauritania		nd	nd
Egypt	1992	5	11
Sudan	1980	4.8	9.1
Syria	1991	4.2	14.2
Lebanon	1994	2	12.5
Iraq	1985	4	nd
Jordan	1994	3.8	10.5
Palestine		nd	nd
Israel	1992	6	11.1
Turkey	1991	2.4	10.5
Yemen	1994	nd	20.8
Saudi Arabia	1992	6.3	17
Gulf Principalities	1993	5.6	11
Iran	1994	5.9	18.1

Source :UNESCO, *Statistical Yearbook, 1996*, Paris, 1996.

Fertility decline now offers a more upbeat picture for the future, for it will ease the pressure on the state's efforts in a field where performances have not necessarily happened. Births are now set to fall or level off in most countries.

But this broad picture will not be uniform - enrolment rates in the transition laggards will still suffer from population pressures. Palestine, for example, will have 57% more school-age children (5 to 14 years of age) between 2000 and 2025. Likewise Yemen, whose school-age population will rise by a 45%. This will be on top of the need to universalize female primary education (already the case for males), where the enrolment rate is currently just 39%. These two cases apart, the demographically-driven demand for primary education has stopped or very soon will stop growing, as it will within some 7 years for secondary education, and within 15 years for higher education. So, the extra cost of education will no longer be due to pressure from excess population sizes, but from quality demands: eradication of illiteracy, more years of complete schooling, better quality education and gateways from general to technical education (always more costly). Labour productivity will be the winner in this shift from quantity to quality.

The slowdown in demographic investment compared to economic investment will enable the state to turn its attention towards more directly production-related, job-creating sectors. The private sector will also win out from the population decline. The deformations in the population age structure before ageing becomes significant will increase the adult to young people, and hence production-to-consumption, ratio. The falling birth rate will produce a relative expansion in the age groups with a higher propensity to save which, all other things being equal, will increase the national savings rate.

One important although less directly visible socio-economic benefit of demographic transition is its impact on narrowing the income distribution gap (or its alternative, per capita

consumption or spending). In Asia and Latin America³¹, the demography of the different social status groups influenced income distribution and widened inequalities before the gaps closed. Not only did a smaller share of national income go to the poorest workers, it also had to support a larger number of consumers. So, differential demographic behaviour has in the past been a factor of living standard disparities. Conversely, as the Asian 'dragons' show, the reduction of rich/poor fertility gaps was a predicator of narrowing wealth gaps and implicitly a significant lever for their economic takeoff. In the Mediterranean region, in Morocco³², the differential population dynamics of the social classes - average household sizes increased from 6.0 to 7.1 for poor families, and contracted from 4.6 to 3.9 for prosperous ones - acted to widen inequalities: deflated average per capita expenditure rose by just 52% between 1960 and 1985 for the 40% of households at the bottom of the social scale, compared to 159% for the 20% of the most well-heeled families. Further down the line, fertility decline will lead to a reduction in the size of working class families and close the gap between average family sizes across all social classes, which will lead to a narrowing of demographically-generated wealth gaps. More generally, reduced wealth disparities and a fairer distribution of knowledge could give fresh impetus to the rising middle classes, currently buffeted by political and economic circumstances, and favour pluralism.

d) South-south common market and job creation

A potential south-south market could be stimulated by population growth in the region and its sub-regions, which are achieving significant sizes. But its future remains very much a hostage to political unrest, which is also a drain on financial resources. The Union of Arab Maghreb has not lived up to expectations. And yet before the recent freeze on its activities, intra-Maghreb trade had increased between Morocco and Algeria under an open border and trade policy which could have had significant - although hard to quantify - job-creation effects had the experiment been prolonged. Attempts to relaunch a process of unification are now afoot, and would certainly pick up speed were the international mediation between Morocco and the Polisario Front to have a positive outcome. The longer term outlook bodes well. Also, Algeria's followed by Libya's declining population growth should reassure their neighbours, who might have feared more aggressive dynamics. After the long blank period of Kemalism and post-Kemalism, Turkey is rediscovering the virtues of a regional common market, lost to it after the dismantling of the Ottoman Empire. It maintained profitable trade relations with its neighbours, before mounting tensions related to Middle Eastern geopolitics and the Kurdish question led to worsening relations with Syria and Iran. Simply observing how far south-south non-oil trade has been undermined, however, is enough to suggest that other opportunities for recovery are to be found. Such a common market - which has yet to be devised and created (the Maghreb, Arab world, or both plus Turkey and Iran,...) - will win out most from this demographic development and its growth potentials for several decades to come. The consequences of population and labour force entrant growth would thus be partly offset by the enlarged economic catchment area of each country in the region, which could then investment without fear of being stifled by its current narrow markets.

³¹ Pravin Visaria, "Poverty and living standards in Asia", *Population and Development Review*, 1, 1980 and Thomas Merrick, "Population, development and planning in Brazil", *Population and Development Review*, 3, 1976.

³² "Quelques incidences de la population sur la consommation et la répartition de la dépense", in Cered, *Variables socio_démographiques au Maroc. Les interdépendances*, Rabat, 1989.

OVERVIEW AND CONCLUSION

These forecasts, constructed by a methodology designed to accommodate the new realities, give a more accurate picture of population development over the next decades. Overall aggregate population growth between 2000 and 2025 is revised downwards compared to the most commonly-used forecasts - those of the United Nations drawn up in 2000. The difference is significant - 60 million people fewer, equivalent to the population of Egypt. With some lag, but a shortening transition time, the demographic profile of the southern shore of the Mediterranean will increasingly resemble that of the northern shore in at least two ways: (i) fertility, which on highly conservative assumptions will be no more than 2.1 children per woman by 2025, when in Europe it will probably be around 1.80, a fairly negligible differential all told; (ii) ageing, which will treble the population aged 65 and over.

In the years ahead, the similarities between these southern countries will outweigh the differences. Converging fertility levels is the most likely scenario in the region, except in countries where the course of transition has been and may continue to be blocked for political reasons - essentially Palestine and Yemen. Elsewhere, rising female enrolments, falling rent-seeking economy revenues - direct for oil-producing countries, indirect for countries benefiting from the redistribution of such revenues - are the main predicating trends for reducing family sizes. On top of that are the global homogenizing forces at work on behaviours in the region conveyed by media forecasts of a specific image of the modern woman and smaller family. These are finding an increasing public response.

Nevertheless, the legacy of the past in the form of demographic inertia entrenched in current demographic structures will produce differential between-country growth rates. It is hard to say how far population growth differentials between certain border countries may be the cause of or heighten political tensions. These hotspots include Egypt-Sudan, Turkey-Syria, Yemen-Arabia, and, of course, Israel-Palestinians and Israel-Syria. Also, competition could emerge between the 3 great demographic giants - Egypt, Turkey and Iran - over representation in international fora (permanent seat on the UN Security Council).

Slackening population growth does not as yet signify a decrease in the number of labour force entrants. The next years will be tight in this respect because the number of labour force entrants - excluding unemployed - may still rise. Also, feminization of the actual or potential labour force will continue fairly independently of economic conditions - boom or bust, women's participation rate is likely to increase. Only after this date will the region begin to reap the benefits of fertility transition. So sharp will the drop in new labour force entrants be that it could cause exactly the opposite type of labour market tensions.

In the short run, however, most economists believe that the southern Mediterranean cannot absorb the labour supply generated by its population growth. Many experts expect to see the somewhat slower current rate of northwards migration quicken in response to the pressure of young people in the south. Arguably, however, the resurgence of emigration is overstated given the labour markets in the North or the region's oil-producing countries; and even were it suddenly to do so, it would account only for a drop in the ocean of the expected natural increase of the southern countries.

The local market, therefore, will be the main pathway into employment for these young people. Daunting challenges lie ahead, especially if economic growth remains low. The family economy, although not an ideal solution, will create jobs which, although less productive than those in the formal sector, will at least have the merit of holding the social fabric together. However, emerging demographic trends are likely to stimulate saving and encourage productive investment (infrastructure, industrial companies,..) over demographic investment (education, health,...) which will tend to keep pace with the slackening population growth rate. The deformations of the age structure, with more adult producers than under-15 consumers, make the case for these restructurings, as the somewhat earlier experience of the emerging Asian economies, which benefited from slowing population growth before ageing became a significant issue, shows. The money pit which public education represented in southern shore countries, with cohorts at times rising by 4% year over year, is an illustration of this. Finally, the reduction of inequalities inherent in the reduction of demographic gaps between the different social classes, is indirectly part of the groundwork for economic recovery.

Reducing population growth, therefore, is a more hopeful scenario for the southern Mediterranean countries than possible emigration. But only if they can turn this opportunity and their population pressure to account by getting this area of close to half a billion people organized into a working economic area.

Furthermore, apart from the measurable aspects, it has to be said that fertility transition also reflects a new outward- rather than inward-looking attitude, where work outside the home takes precedence over childcare. This new outlook releases especially female hidden and long-suppressed energies ready to be channelled into productive activities.