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**LOOKING FOR EUROPEAN DEMOGRAPHY, DESPERATELY? \***

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## LOOKING FOR EUROPEAN DEMOGRAPHY. DESPERATELY?

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According to the UN population projections (1998 revision, medium variant), the European population would have reached a maximum by the end of the 20<sup>th</sup> century and would continuously decline in the five following decades, at an ever-increasing rate. From 730 million people in 2000, it would have lost 100 millions by 2050, despite a rise in fertility (the total fertility rate would have gained .35 child per woman, from 1.42 in 1995-2000 to 1.77 in 2045-2050), a prolonged life expectancy at birth (from 73.3 to 80.1 years) and some immigration. Ageing would be the other major feature, with a decline in the proportion of children below 15 (from 17.6% in 2000 to 14.4% in 2050) and a rise in the proportion of elderly people aged 65 or more (from 14.7 to 27.6%).

Of course, these results are correct, i.e. population trends in numbers and age structure are consistent with the values taken by the components of the demographic movements: fertility, mortality and migration. The latter are just assumptions, which we will not contest. But in fact, there were no projections, through assumptions and calculations, made for Europe, only projections for each national population, then an aggregation that resulted in a European total. Aggregation of births, deaths or migrants can be seen as the result of European levels of fertility, mortality and migration applied to European population, but they were not reached this way. Consequently, we will not question these implicit global assumptions and wonder whether they are reasonably likely or not; instead, we will question the process of aggregation and wonder whether demographic levels in European countries are homogeneous enough for the sum of them to be considered meaningful. Our analysis of the diversity of demographic situations in Europe will reveal different configurations of family or health elements, with various policy implications.

Europe is a large puzzle of 47 countries that would be too difficult to understand if we had no simplification scheme, *ab initio*. We will assume that there are two Europe, a western one, the population number of which the European Union dominates, and an eastern one, which includes Russia as a major member. A widely shared view is that the demographic regime which prevails presently in western Europe (the "second demographic transition" model, maybe) should extend to the eastern part in the future, thus resulting in converging trends between the two regions. By 1995, there were 728 million people in Europe, of which slightly more than a half lived in the 15 countries of the European Union (372 million persons).

But the European Union itself is diverse. An opposition is generally made between the North and the South, with the idea of a possible diffusion from North to South of family patterns and health systems, likely to have a strong incidence on demography. Four countries dominate EU by their population numbers: Germany with more than 80 millions in 1995, France, Italy and the United Kingdom with nearly 60 millions each; we will concentrate most of our analyses on them, before we contrast EU to the rest of Europe, where Russia (nearly 150 million of persons) will be given a major role.

In the recent years (1990-1995), total fertility rate was 1.57 child per woman in Europe; life expectancy at birth was 72.6 years for both sexes. The European Union had a lower fertility

than the rest of Europe (1.50 against 1.64), but a higher life expectancy (76.5 against 68.7). Inside the European Union, there were marked differences in fertility, with low rates in Germany and Italy (more generally, in central and southern Europe) and relatively high rates in France and UK (and in northern Europe). Disparities in EU were high enough for Russia (and the average of the rest of Europe) to be inserted in the 1.28-1.78 bracket. On the contrary, life expectancies were very similar in the four western countries and the distance was large between them and Russia. (Table 1)

TABLE 1. FERTILITY AND MORTALITY INDICATORS IN EUROPEAN REGIONS AND SOME COUNTRIES

	European Union					Rest of Europe	
	Total	<i>France</i>	<i>Germany</i>	<i>Italy</i>	<i>UK</i>	Total	<i>Russia</i>
Total fertility rate (number of births per woman)	1.50	<i>1.72</i>	<i>1.30</i>	<i>1.28</i>	<i>1.78</i>	1.64	<i>1.55</i>
Life expectancy at birth (in years, for both sexes)	76.5	<i>77.1</i>	<i>76.0</i>	<i>77.2</i>	<i>76.2</i>	68.7	<i>66.5</i>
<i>Source: Population Division, Replacement Migration: Is it A Solution to Declining and Ageing Populations? United Nations 2000.</i>							

There is a global diversity in fertility levels, throughout Europe, with a limited gap between East and West. There is a clear divide in mortality, with much more favourable levels in the European Union than in the rest of Europe. From a slightly different perspective, the European Union is diverse on fertility, but fairly homogeneous on mortality.

#### A. DIVERSITIES IN EUROPE ON FERTILITY

##### 1. Diversity in the European Union on fertility

Low period fertility indices can partly be explained by tempo effects: fertility is low now, because people prefer to postpone the births they will have to later (better?) times. An increase in the age at birth is a signal for this movement, which also results in period rates being lower than cohort rates. The total number of children to women in birth cohorts can remain unaffected while postponement results in a lowering of contemporary fertility. A possible explanation for divergences in period fertility within the European Union could be linked to differentials in these tempo effects.

It is not really the case. Mean ages at birth are rather similar throughout western Europe. Still more importantly, the four more populated EU countries share the movement towards later childbearing; only Italy emerges with an amplified increase in mean age at birth. Cohort fertility rates, which result in period rates when combined with tempo variations, are nearly as diverse as period rates have already been showed to be. (Table 2)

Diversity in EU fertility is not just a postponement effect that would explain short-term movements and levels of period indices. It is a lasting phenomenon, written in cohort histories and likely to be maintained in the future. Reasonably enough, the UN population projections have taken some account of that reality.

TABLE 2. TEMPO AND QUANTUM COMPONENTS OF PERIOD FERTILITY RATES  
IN COUNTRIES OF THE EUROPEAN UNION

	France	Germany	Italy	UK
a) TFR (birth cohort 1963) (births per woman)	2.02	1.57	1.57	1.89
b) Mean age at birth (birth cohort 1963) (years)	28.0	27.5	28.4	28.0
c) Variation in mean age at birth (bc. 1958-1963) (years)	+0.6	+0.6	+1.0	+0.5
d) Expected period TFR [ $a*(1-c/5)$ ] (births per woman)	1.78	1.38	1.26	1.70
e) Actual TFR (period 1990-1995) (births per woman)	1.72	1.30	1.28	1.78
<i>Sources:</i> UN, cited in table 1; Conseil de l'Europe, <i>Évolution démographique récente en Europe, 1999.</i>				

Low fertility can also be linked to the movement away from marriage, which many western European countries have experienced for the recent decades. Of course, marriage is no longer a pre-condition for childbearing in most of these populations, but it remains true that married couples have a higher fertility than non-married people, even those who live in a “marriage-like” cohabitation.

This time, the decomposition is very efficient; not because of marriages, the proportion of which is low but not very different throughout the European Union, but because of the proportion of children borne from married parents, which is low where total fertility is relatively high and high where TFR is specially low. When children borne in wedlock are referred to ever-married women, the fertility index so calculated is much more uniform throughout EU countries than TFR itself. That index is lower than TFR in France and UK; it is higher than TFR in Germany and Italy. The range for TFR is .50 child (from 1.28 to 1.78); that for the marital fertility index is but .11 (from 1.41 to 1.52). (Table 3)

TABLE 3. MARRIAGE AND MARITAL FERTILITY COMPONENTS OF FERTILITY RATES IN COUNTRIES OF THE EUROPEAN UNION

	France	Germany	Italy	UK
a) Total fertility rate (period 1990-1995) (births per woman)	1.72	1.30	1.28	1.78
b) Proportion of ultimately married women (birth cohort 1963)	.75	.80	.83	.81
c) Proportion of children borne from married parents (period 1990-1995)	.66	.87	.93	.69
d) Estimated number of “legitimate” births to ultimately married women [ $a*c/b$ ]	1.52	1.41	1.43	1.52
<i>Sources:</i> UN, cited in table 1; Conseil de l'Europe, cited in table 2.				

The countries with the highest TFRs, France and UK, are those in which low nuptiality has been compensated for by the rise of fertility out of marriage. In the countries with very low period fertility, the decline in marriages has directly been consequential for fertility, because marriage remains the place for childbearing, without any substitutes for it. We must go on developing along these lines, to understand trends and diversities in the European Union.

a. *Declining marriages*

Marriage has declined throughout Western Europe. The Nordic countries, France or UK have experienced dramatic changes. In Sweden, the proportion of men and women who will

definitely not marry will reach some 40% in recent birth cohorts and women who marry will not do it before the average age of 27.5 years; in Finland, France or Norway, the proportion of never married will climb up to 30% and mean age at first marriage for women to 26.5 years. By contrast, the Mediterranean countries are facing mild transformations: the proportion of never married women has not yet reached 20% in Italy in the 1960s birth cohorts; still further from Sweden, Portugal has exhibited only very recently a decline in period marriage rates which has hardly affected birth cohorts.<sup>1</sup>

Between northern and southern Europe, the central part of the region (Austria, Germany or Switzerland) is in a median position. The global picture is that of a regular gradation, which evokes the idea of a geographical diffusion of a matrimonial model from North to South.

b. *Rising divorces*

Divorces have been more and more numerous throughout western Europe for the last three decades. The 1970s were also a period of changes in family laws which made easier the access to divorce almost everywhere, through more rapid and simplified procedures. But comparing the magnitude of juridical and statistical changes, or the tempo of reforms and numbers, suggests that the evolution of attitudes and behaviours came first and resulted in legislative action, rather than the other way round.

Like for marriage trends, levels of divorce rates gradually decline from northern to southern Europe. According to the most recent period rates, 40 to 50% of marriages would be concluded by a divorce in the Scandinavian countries and UK, 30 to 40% in the central and western parts of the region and less than 20% in the Mediterranean countries.

c. *The spreading of cohabitation*

Declining marriages and rising divorces do not mean that couples refuse to live together any longer. Everywhere in western Europe, informal living arrangements have developed, with men and women living “like husbands and wives” without being married.

The spreading was exceptionally rapid in Sweden, where the marriage-burst and the divorce-boom were so sudden. As many as 80% of women borne in the early 1950s had chosen cohabitation as their first form of living together before the age of 25. The proportion raised to 90% in the following cohorts, but there already remained little room for any further evolution. A few years have been enough for cohabitation to become not only predominant but almost exclusive and for marriage to be left a residual importance.

Trends were more gradual and slightly time-lagged in the rest of the Nordic countries. Then came the time for western countries like France, Germany or UK. Levels are coming closer and closer to the Swedish record: 90% of the women in Finland and 70 to 80% of those in the other countries have chosen cohabitation as their entry gate into conjugal life.

By contrast, the movement has hardly started in the Mediterranean countries. Some increase has occurred across cohorts, but as few as 10 to 20% of young women have chosen cohabitation for their first living together experience, in Italy, Portugal or Spain. Marriage remains heavily predominant in these countries. Maybe convergence towards higher levels is on its way, but there remains a long way to go.<sup>2</sup>

d. *Marriage, couple, children*

The proportion of couples who conceived a child out of wedlock and who married before the end of pregnancy, so as to legitimise their child, was high everywhere in western Europe by the 1960s: about 60%; but trends since then have been divergent. In northern Europe, France

or UK, the proportion has sharply declined: to 10% or less; on the contrary, in southern Europe, high levels have been maintained, alike the ones in the 1960s: for instance, in Italy unmarried couples turn to marriage six times out of ten when a pregnancy occurs. In the between, but very near of the Mediterranean countries, central Europe has experienced a limited decline in the nuptiality of pregnant unmarried women: in Germany (western *Länder*) and Austria, more than half of conceptions out of wedlock result in a marriage before the end of the pregnancy. The case of Germany is the more so remarkable as an increased proportion of children borne from unmarried parents are legitimised later: more than 40% against 30% by the end of the 1970s. The movement in France is in the reversed direction. Three quarters of children conceived out of marriage are integrated into marriage, before birth or after, in Germany. It is twice more than in France, while the two countries were at the same high level, twenty-five years ago.

On this point, there is a clear-cut distinction between the northwestern part of Europe and the central and Mediterranean countries. It is quite different from what has occurred in nuptiality trends, but very similar to the fertility divide. Central Europe and southern Europe had already experienced sharp fertility declines when nuptiality still maintained relatively high levels. In these countries, marriage remains the highly favoured frame for family building and a very limited space has been left for fertility out of its traditional legitimate form. No compensatory mechanism has been able to work between declining births from married parents and rising births from unmarried ones.

#### e. *Implications*

Differential fertility within the European Union does not only result in unequal rates of population growth and population ageing. It also has social implications linked to the very significance we have just analysed.

By 2050, population numbers in France and the United Kingdom will still be over their 2000 mark; Germany will have lost 9 million persons and Italy 16 millions. The proportion of elderly people aged 65 or more will reach 25% in France and UK, 28% in Germany and 35% in Italy, instead of 16% fifty years earlier (18% in Italy). The rapidly declining and ageing Italian population makes a large difference with the stabilised numbers and the slowly increasing proportions in France and UK.

But it could be still more important to note that children in Italy will probably be borne and raised in marriage, while those in France and UK will have experienced more informal and more unstable family links, through cohabitation, separation, reconstituted families and so on. One step further would lead us from “more informal” to “weaker”; but some sociologists suggest that things evolve the other way round, from “more informal” to “more personal” then “stronger”. Cohabiting fathers who care to recognise their children will be closer to them than married fathers who receive their paternal authority automatically from their marital status. We are unable to add arguments in one direction or another, but the issue is crucial for the future of our societies, which are based on an intergenerational contract. Parents contribute to the education of their children with the implicit hope that they will be rewarded later, when the generation of their children supports them in their older ages. It has been admitted up to now in Europe that the most effective way to get this exchange working is to rely mostly on private transfers from adults to their young children and to have public systems to transfer resources from the active to the inactive population or from the healthy to the unhealthy people.

Let us take two realistic case studies, which oversimplify the situation various EU countries will face in the future. Will children take in charge similarly their old-aged dependant fathers,

whether these ones raised them, together with their spouses, or paid a reasonably generous child support after their divorce? Will they be efficient caregivers for their elderly parents, whatever their present situation: still married to their only spouse, separated from him (her) or living with a second (third...) partner?

Answers to these questions are not only important for these individuals but for society as a whole. If marital status does matter, for better or worse, two countries like France and Italy will probably be much more different in 2050 than what population numbers tell us. Present disparities in their fertility trends and levels point to disparities in family systems, which should exclude aggregation and globalisation.

## 2. East-West European fertility differentials

Fertility levels in eastern Europe, exemplified by the Russian case, are not very different from those in the European Union. More precisely, period rates for 1990-1995 or cohort rates for women borne in 1963 are midway from the relatively high levels in France and UK and the extremely low levels in Germany and Italy (Table 4).

TABLE 4. TEMPO AND QUANTUM COMPONENTS OF PERIOD FERTILITY RATES  
IN RUSSIA AND COUNTRIES OF THE EUROPEAN UNION

	France	Germany	Italy	UK	<b>Russia</b>
a) TFR (birth cohort 1963) (births per woman)	2.02	1.57	1.57	1.89	<b>1.71</b>
b) Mean age at birth (birth cohort 1963) (years)	28.0	27.5	28.4	28.0	<b>24.7</b>
c) Variation in mean age at birth (bc. 1958-1963) (years)	+0.6	+0.6	+1.0	+0.5	<b>-0.6</b>
d) Expected period TFR [ $a*(1-c/5)$ ] (births per woman)	1.78	1.38	1.26	1.70	<b>1.92</b>
e) Actual TFR (period 1990-1995) (births per woman)	1.72	1.30	1.28	1.78	<b>1.55</b>
<i>Sources:</i> UN, cited in table 1; Conseil de l'Europe, cited in table 2.					

Discrepancies are elsewhere. First, mean age at childbirth is much lower in Russia: an enormous three-year gap with the western countries, which are pretty homogeneous on this point. Second, mean ages were still declining in Russia when they had reversed that trend for a long time in EU countries. Third, cohort rates, variations in mean age at childbirth and period rates apparently failed to be consistent in Russia, but the expected TFR should have been compared to earlier actual rates, because of earlier childbirth.<sup>3</sup>

Other discrepancies are linked to the marital and non-marital components of total fertility. The European Union is diverse on that point because of the unequal contribution of unmarried parents, substantial in France or UK and very limited in Germany or Italy; Russia stands in the middle but diverges substantially by the high proportion of ever-married persons (Table 5). That specificity is reinforced by the prevalence of young ages at marriage, which is consistent with early childbirth.

TABLE 5. MARRIAGE AND MARITAL FERTILITY COMPONENTS OF FERTILITY RATES  
IN COUNTRIES OF THE EUROPEAN UNION

	France	Germany	Italy	UK	<b>Russia</b>
a) Total fertility rate (period 1990-1995) (births per woman)	1.72	1.30	1.28	1.78	<b>1.55</b>

b)	Proportion of ultimately married women (birth cohort 1963)	.75	.80	.83	.81	<b>.91</b>
c)	Proportion of children borne from married parents (period 1990-1995)	.66	.87	.93	.69	<b>.83</b>
d)	Estimated number of “legitimate” births to ultimately married women [a*c/b]	1.52	1.41	1.43	1.52	<b>1.41</b>
<p>Sources: UN, <i>cited in table 1</i>;  Conseil de l’Europe, <i>cited in table 2</i>.  A. Avdeev, A. Monnier, La nuptialité russe: une complexité méconnue, <i>Population</i>, 4-5, 1999.</p>						

More generally, family building in Russia differs from the western models by the coexistence of three traits:

–marriage is frequent and takes place at young ages. This ancient specificity is shared by all the populations East of the St Petersburg-Trieste line, already drawn by J. Hajnal. The political and economic crisis of the 1990s has resulted in a sharp decline in marriage rates, but it could be a short-term reaction to acute uncertainties. Some people thought that early marriage was a way for young persons to get some facilities like an independent housing during the soviet period, but it is an over simplification which severely underestimates the importance of a deeply rooted practice of young marriage in Russia;

–divorce is frequent too. Half of marriages result in a divorce. By the mid-1960s, after a limited reform of the judicial procedure, numbers have rocketed to 30 divorces per 100 marriages, at a time when there were 10 to 15 in most western countries. A continuous rise since that period has put divorce frequency in Russia at one of the highest levels of the world, with Sweden and the United States;

–the combination of early and frequent marriage with high divorce rate is very unusual. In western Europe, the rise in divorce has paralleled the decline and delay of marriages. It is made possible in Russia by the existence of a dense family network, which interferes continuously with the daily life of couples and families. The cohabitation of different adult generations in the same household (young couples frequently live with parents or in laws) and the intergenerational support (child sitting, shared food, financial aid, etc.) are not only the result of economic difficulties but also the product of old traditions, brought from rural settings to urban modern places. Cohabitation in the same household helps solving the housing shortage but it also permits early marriage as a first step towards material independence; it is also one of the safety nets offered to former spouses after their divorce. Most importantly, it gives the young generation a stable frame for their socialisation after the separation of their parents.

Family network is probably the central part of the Russian family system, with important implications for the future, when the ageing of the society will increase the weight of the elderly and will put more pressure than ever on families. Private solidarity will find traditional channels more easily than in most western European countries. The heavy strain presently put on family networks by the transition to market economy must be watched with great concern.

## B. DIVERSITIES IN EUROPE ON MORTALITY

### 1. Diversity in the European Union on mortality

Contrary to what has been just shown concerning fertility, there is a remarkable homogeneity in mortality levels throughout the European Union. We have already exhibited life expectancies at birth in table 1, but even such a volatile index as infant mortality rate has a limited range of values: in the four more populated EU countries in 1997, it was as low as 4.7 p. 1000 in France and as high as 5.9 in UK, at the two extremes.

A classical decomposition of life expectancy by age and sex does not introduce major changes in that preliminary observation. Differentials between men and women are somewhat more contrasted than average life durations are: from 5.2 years in UK to 7.9 in France. The gap between the two extremes has increased since the eighties, because male over-mortality declined more rapidly in UK, but these discrepancies are long lasting and relatively moderate. EU countries are all characterised by an important male excess mortality. Similarly, differentials associated with age are limited: for instance the expectation of life at the age of 65 is higher in France than in the other three countries, but the difference never exceeds two years. On all these aspects, the homogeneity of EU countries cannot be questioned. All of them have a long survival; in technical terms, their survivorship curve declines so late that it looks like a rectangle. (Table 6)

TABLE 6. AGE AND SEX COMPONENTS OF LIFE EXPECTANCY AT BIRTH  
IN COUNTRIES OF THE EUROPEAN UNION (1995)

	France		Germany		Italy		UK	
	Men	Women	Men	Women	Men	Women	Men	Women
Life expectancy at birth (years)	73.2	79.7	73.9	81.8	74.6	81.0	74.3	79.5
Men-women differential	6.5		7.9		6.4		5.2	
Life expectancy at 65 (years)	14.7	18.4	16.1	20.6	15.5	19.4	14.8	18.3
Men-women differential	3.7		4.5		3.9		3.5	

*Source: Conseil de l'Europe, cited in table 2.*

A long survival has direct consequences on numbers and age structure in any population, but its impact on the other features of the society are at best indirect. For instance, the distinction between actives and non-actives is linked with age, and demographers often contrast people in working age with those out of that bracket, but the divide between active and inactive people is more pertinent for social policy. The most direct and socially pertinent associate with age and mortality is health. Mortality is just an indication of a more important issue: how healthy are the survivors? That is the reason for the increasing popularity of the decomposition of life expectancy in "good" and "bad" years, the latter ones being costly for individuals and the society.

The decomposition according to health status gives some contradictory results. A large majority of life is free of any disability and the average number of these good years are distributed among the EU countries as life expectancies are: France and Italy are in a slightly better position than Germany and UK. But disparities between the first and the last countries are larger (4.0 years between France and Germany instead of 1.5 on  $e_0$ ); not only is life longer, but it is also better in France, with only 15.4 years with some disability against 17.9 in Germany. Unfortunately for the French people, their bad years are much worse than in

Germany, with 7.9 years of severe disability instead of 5.2. Taken at face value, this last indicator leads to the following conclusions: the most costly years of life are more numerous in France and Italy than in Germany and UK, as if longer life expectancies had been gained in bad physical conditions. Years of severe disability weigh so heavily on health budget that we could no longer consider all these countries as homogenous. What a pity these data look so unreliable; they would be so valuable for policy making! (Table 7)

TABLEAU 7. HEALTH COMPONENTS OF LIFE EXPECTANCY AT BIRTH  
IN COUNTRIES OF THE EUROPEAN UNION (1994)

	France	Germany	Italy	UK
Life expectancy at birth (years)	77.7	76.2	77.5	76.6
Disability free life expectancy (years)	62.3	58.3	60.5	59.9
Mean number of years in mild disability	7.5	12.7	11.2	12.7
Mean number of years in severe disability	7.9	5.2	5.8	4.0

*Source: J. M. Robine et al., Les espérances de santé dans l'Union Européenne. Analyse des données du Panel des Ménages de la Communauté Européenne, REVES paper n°320, Octobre 1998*

Let us conclude with a result obtained for the Netherlands. By the age of 65, people still have 6.5 disability-free years to live and 10 other years in disability. If the cancer were eliminated, they would gain disproportionately more bad years than good ones (respectively 1.6 and .6); if heart diseases were eliminated, they would maintain the balance between bad and good years (respectively 1.7 and 1.2); if arthritis and back complaints were eliminated, their total life expectancy would remain unchanged, but they would transform bad years in good ones (an estimate of .9).<sup>4</sup> Longer life can be a proxy for healthy life for demographers, but it should not be for politicians.

## 2. East-West diversity on mortality

The East-West divide on life expectancy is so clear-cut that it hardly deserves any comment. It is a relatively recent phenomenon, which started in the mid-1960s and which has continuously amplified since. Some improvement in the Russian situation after 1995 has been stopped in 1999 (an epidemics of flu?).

In thirty years, the male situation has progressively deteriorated, while the female one stagnated. It has resulted in an ever-growing excess mortality for men: the differential between men and women, which was already important in the sixties, is now over 13 years, twice as much as in France. (Table 8)

TABLE 8. AGE AND SEX COMPONENTS OF LIFE EXPECTANCY AT BIRTH  
IN RUSSIA AND COUNTRIES OF THE EUROPEAN UNION (1995)

	France		UK		Russia	
	Men	Women	Men	Women	Men	Women
Life expectancy at birth (years)	73.2	79.7	74.3	79.5	<b>58.3</b>	<b>71.7</b>
Men-women differential	6.5		5.2		<b>13.4</b>	
Life expectancy at 65 (years)	14.7	18.4	14.8	18.3	<b>10.8</b>	<b>14.9</b>
Men-women differential	3.7		3.5		<b>4.1</b>	

*Source: Conseil de l'Europe, cited in table 2.*

Most of the deterioration has concentrated on the adult ages, with a possible improvement at young ages and a slower than average worsening for the elderly. But the data quality can probably be questioned at these ages. Nevertheless, excess mortality after 65 is not much different from that in France and UK. The quality of survival at working ages has probably declined sharply for the last decades.

Causes of death point to two factors responsible for the gap between eastern and western countries: heart diseases and violence (Table 9). The former played a major role in decennial trends and differentials. A slow rise in frequency in Russia contrasted with a sustained decline in France and UK. The advantage of the French population has been gradually increased; UK, who hardly did better than Russia in 1970, has followed the French example. Costly techniques and health care for the elderly have been responsible for progress in western Europe, but could not be afforded in the East.

TABLE 9. CAUSE OF DEATH COMPONENTS OF STANDARDISED MORTALITY RATES (P. 100 000)  
IN RUSSIA AND COUNTRIES OF THE EUROPEAN UNION

	France (1992)		UK (1992)		Russia (1993)	
	Men	Women	Men	Women	Men	Women
Infectious diseases	28	11	5	4	<b>33</b>	<b>7</b>
Cancer	360	158	324	210	<b>361</b>	<b>160</b>
Diseases of circulatory system	332	209	554	350	<b>1 292</b>	<b>839</b>
Diseases of respiratory system	86	40	144	82	<b>168</b>	<b>86</b>
Diseases of digestive system	56	31	35	29	<b>63</b>	<b>29</b>
Other diseases	100	74	106	88	<b>83</b>	<b>55</b>
Injury, poisoning, violence	114	51	46	20	<b>400</b>	<b>95</b>
<b>TOTAL</b>	<b>1 075</b>	<b>575</b>	<b>1 214</b>	<b>782</b>	<b>2 401</b>	<b>1 235</b>

*Source: V. Shkolnikov, F. Meslé, J. Vallin, La crise sanitaire en Russie, Population, juillet-octobre 1995.*

Violent deaths are directly linked to alcoholism. Ups and downs in their numbers coincide with the anti-alcoholic campaigns. Together with alcohol, the worsening of economic conditions and the deterioration of the political system are responsible for these trends. Divergences with EU countries on this point exhibit consequences of more general differences in ways of living.

There are so deep structural differences between eastern and western Europe in mortality that a real convergence cannot be expected in the short or even the medium-term. Once more, the aggregation of populations with so different health conditions and, probably, health determinants and systems, looks like a statistical artefact. Ageing, which will be equally important in the eastern and the western parts of Europe, can hardly be considered as a single issue, when so different answers are likely to be given by societies.

## CONCLUSION

The European population will probably decline in the next five decades by 100 millions out of 730. The group of people aged 65 or more will grow in numbers and, still more, in proportions, up to 27.6% in 2050. A slowly rising fertility (from 1.4 to 1.8 children per woman) and a continuously prolonged life expectancy, up to 80 years, will fuel these movements. But does that population exist or is it just a statistical aggregate?

There is much diversity in the European family. Intergenerational links, which will have a crucial role in ageing societies, have become more and more personal in the Nordic countries, France and UK, while they stayed deeply anchored in marriage in the Mediterranean countries or embedded in dense networks in eastern Europe, specially in Russia. Not only does that variety result in different fertility levels but it also has differentiated implications for socio-economic issues. Private solidarity is stronger, when one moves from personal-type to marriage-type, then network-type families and the need for social solidarity will be the more intense when the private ones are the more problematic. If this diversity were to be maintained along the next fifty years, the tackling of the ageing problem would probably imply differentiated answers throughout Europe.

On health matters, diversity leaves room to an East-West divide. While most European countries have experienced a substantial increase in life expectancy since the 1970s, the eastern countries have stagnated, due to the collapse of their health system and economic regime. There is some uncertainty in the quality of life gained during that phase of costly struggle against cancer and heart diseases. The statistical indices should take more consideration of these aspects, so that politicians be in a better position if a choice is to be made between more years of survival and better years of life. It is doubtful whether countries in so different a stage of their health transition would give similar consideration to this topic.

All European countries in the future will share ageing, but the diversity in the components of demographic change throughout Europe precludes any hastily generalisation. Policy implications of that diversity will mean national or regional adaptations to long-lasting socio-economic systems.

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#### ENDNOTES

<sup>1</sup> ODE, Évolution récente de la nuptialité féminine en Europe occidentale, *L'Observatoire Démographique Européen vous informe*, n° 7, janvier 1998.

<sup>2</sup> M. Macura, Y. Mochizuki Sternberg, J. Lara Garcia, Europe's fertility and partnership : selected developments during the last ten years, *paper to the FFS Flagship Conference*, Brussels, May 2000.

<sup>3</sup> Actual TFR in the period four years earlier (1986-1991) is 2.02.

<sup>4</sup> W. J. Nusselder *et alii*, The elimination of selected chronic diseases in a population : The compression and expansion of mortality, *The American Journal of Public Health*, 1996, 2.