

Keynote address on Population and Development in Europe during the last decade: an academic's overview

Facing the 21st Century. New developments, continuing problems

Introduction

At the end of the last decade of the 20th century, demographic patterns in the UN ECE area, and the problems and opportunities that they present, have become if anything even more incoherent than they were around 1990. Some issues remain as they were then: continuing demographic marginalisation on the world scene, persistent low fertility, generally high and improving levels of survival, continuing immigration pressure, persistent demographic divergence (Coleman 2002). There have also been radical changes, some failures of hopes and expectations, and some substantial re-alignment of demographic perceptions, definitions and policies affecting population.

The demographic responses to the collapse of communist regimes at the beginning of the decade have been profound. International migration now dominates European population dynamics. The significance of population ageing, long understood by demographers, has finally burst onto political and public consciousness, provoking much alarm, despondency and media hype. The conceptual world of demography has also been transformed. The idea of the 'second demographic transition', relating the rise of individualistic behaviour to the radical retreat of marriage in the face of new 'living arrangements' has promoted research in new lines, facilitated by advances in the technical analysis of the life-course and in many other areas. In this paper only a selection of these interesting developments can be considered. There is, for example, little on mortality, and nothing on the new concepts developed recently to understand the cross-currents of urbanisation, and counter-urbanisation that are transforming Europe's social and geographical landscape (e.g. Champion et al. 2003).

Trends and concepts of the decade

The Second Demographic Transition

The concept of the 'Second demographic transition' is undoubtedly the theory of the decade, bidding fair to dominate demographic thinking at the beginning of the new century as the 'first' demographic transition dominated that of the last. This theory that launched a thousand research projects is described as 'the' mainstream concept among population scholars dealing with demographic change in European societies' (EAPS 2002 p. 3). Developed by van de Kaa (1987) and Lesthaeghe (1987) as recently as 1986, it is an ambitious model. It describes and explains the substantial and unprecedented progress of cohabitation, lone parenthood, childbearing outside marriage and low fertility observed in many countries since the 1960s and the parallel retreat from marriage and from traditional norms of sexual restraint. All these demographic trends have been consolidated during the 1990s (see Kiernan 2002, Heuveline et al 2003) and as the theory predicts, are increasing almost everywhere in the developed world, although still at different levels of prevalence (Fig 1-4, T 4).

Figure 1 Total First Marriage Rate, groups of European countries 1960 - 2001

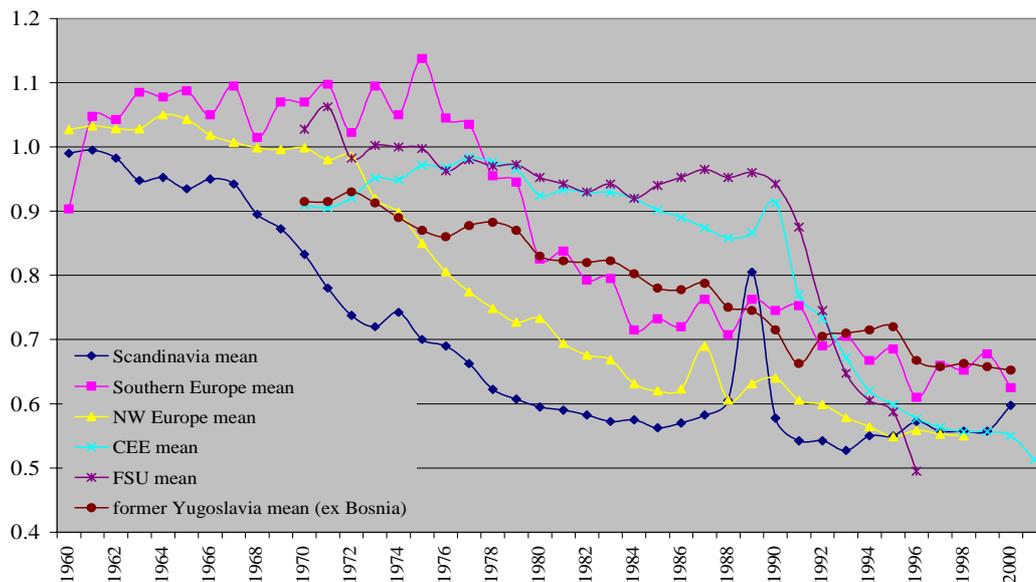
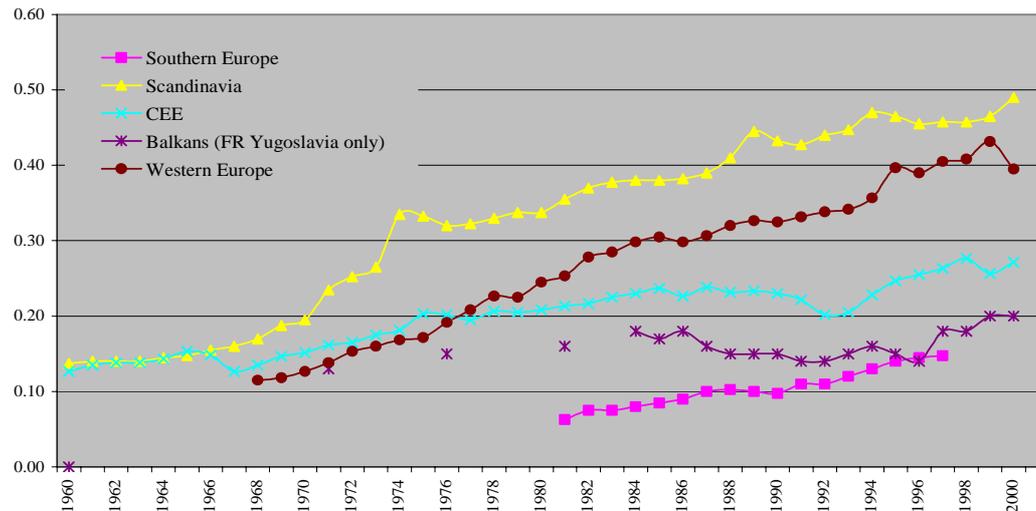


Figure 2

Total Divorce Rate trends, groups of European countries 1960 - 2000



Source: Council of Europe

Figure 3

Percent of persons cohabiting, selected countries, 1996.

Source: Eurobarometer data from Kiernan 2002 table 5.1

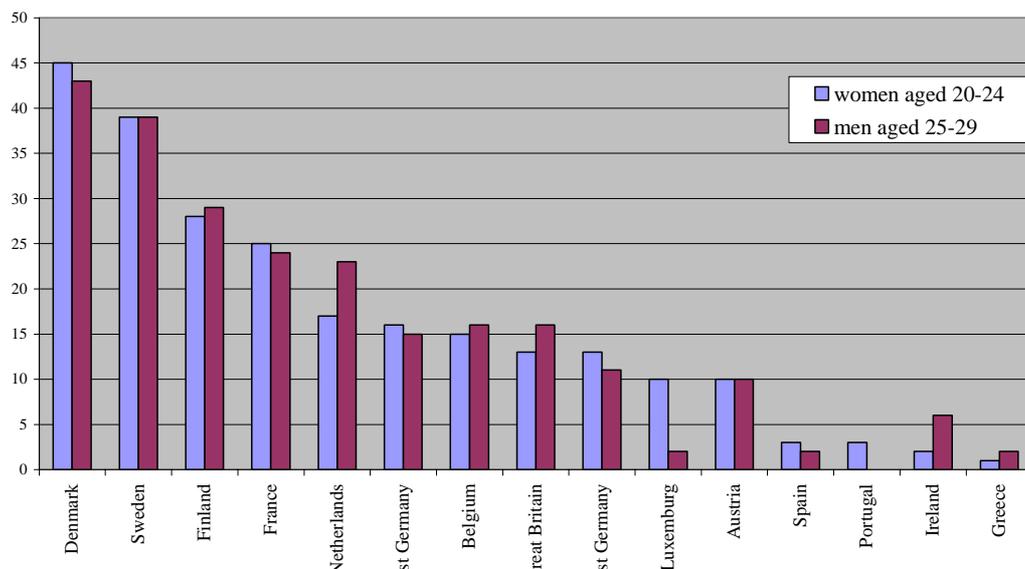
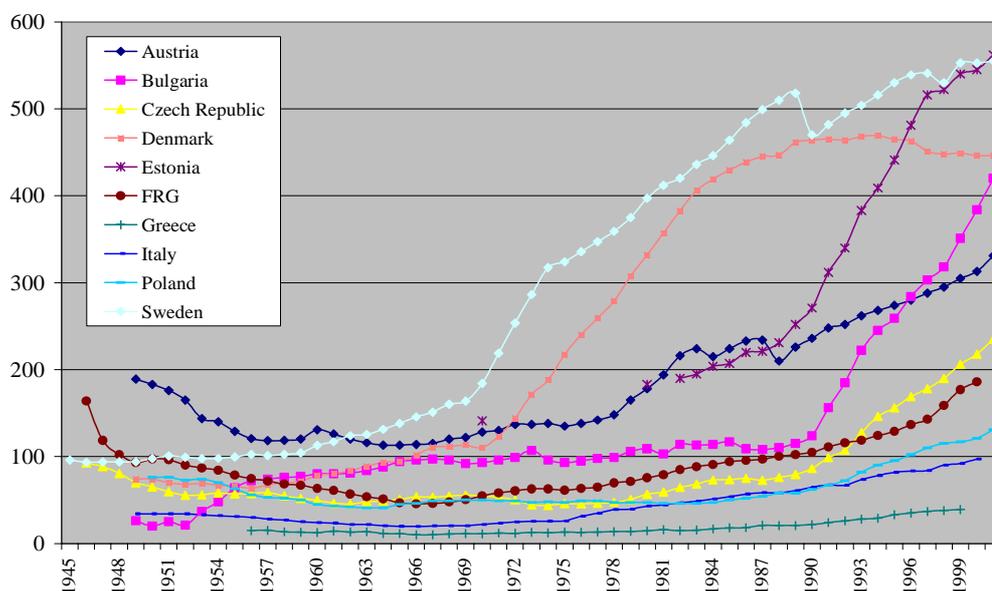


Figure 4

Births outside marriage per 1000 live births, selected countries 1945 -2001.

Source: Council of Europe, National Statistical Yearbooks



During the 1990s the concept developed actively (Lesthaeghe 1995); post-materialist demography has now evolved further into ‘post-modern’ demography (van de Kaa 2001). But in essence the theory proposes that the new freedom of sexual behaviour, the diversity of forms of sexual partnership, and the relaxation of traditional norms and constraints observed in many Western societies since the 1960s, are intimately related and share common causes. They are held to be irreversible and likely to become universal in developed societies. The underlying causes are a development of the socio-economic progress in literacy and income that made possible the first demographic transition, of which these events are a logical continuation. The new transition is made possible by parallel trends in further economic growth, intellectual emancipation through education and the concomitant ease of diffusion of ideas. Its underlying theory, derived from the work of Maslow (1954) and Inglehart (1990), posits an emancipation from traditional deferential modes of behaviour once material needs and anxieties are mostly satisfied though the achievement of prosperity and, in Europe at least, the personal security offered by the welfare states which that prosperity sustains.

On this view an educated and liberal-minded population, no longer constrained by material anxieties, is able to emancipate itself from traditional rules and strictures, unconstrained by deference to religious authority or parental sanction. More concerned with ‘self-realisation’ than with duty or obedience to authority whether parental, civic or divine, individuals choose modes of life suited to their convenience. Under these circumstances, the single state, cohabitation, lone motherhood and the avoidance of parenthood are more practical and feasible and become more socially acceptable. Conduct formerly frowned upon becomes tolerated or ‘normal’. The spread of these ‘post-material’ values in society, measured by questionnaire batteries, correlated with the spread of secular opinions, unconventional attitudes and toleration

of behaviour formerly regarded as deviant, immoral or criminal. These general empirical social trends have been analysed under various different ideological umbrellas, not all of them sympathetic (Murray 1990, Fukuyama 1999). The specific 'post-materialist' ideology underlying SDT theory has not been without its critics, some of whom find little difference between 'materialism / post-materialism' and the conservative / liberal poles of personality, and those who find little retest consistency or behavioural predictive value in the results (Degraaf and Evans 1996, Marshall 1997, Dennis and Erdos 1992). Others have disputed the complete novelty of the trends it describes, seeing more continuity with developments in the past (Cliquet 1991).

Numerous empirical studies in western countries support the theory. At national level there is indeed a syndrome of Second Demographic Transition behaviour. National populations with a high prevalence of (for example) divorce also tend to have lower levels of marriage, higher prevalence of cohabitation and of births outside marriage, and abortion ratios, although the statistical association is not always very strong (Figure 6). The prevalence or even the possibility of such behaviour is of course modulated by national government policies on family welfare and on legal provisions for divorce and abortion, which are far from uniform (Tomka 2003). Most important, those individuals who score higher on 'post-materialist' responses are more likely to be engaged in unconventional living arrangements such as cohabitation (Lesthaeghe and Moors 1996) and to 'do their own thing' in many other ways. Also, the incorporation of these questions into the European Values Survey and other enquiries have shown that the prevalence of these responses increased during the 1990s in many countries, in step, to put it no more strongly, with the spread of the relevant demographic behaviour. Not surprisingly, therefore, the trend towards 'post material' values and attitudes is presented by the votaries of the 'second demographic transition' as an historically inevitable universal development of irresistible force. Identification of 'leader countries' which others follow has proved difficult; there does not seem to be one single trajectory. Liberating forces need not lead to convergence, unless all agree to be liberated in the same direction.

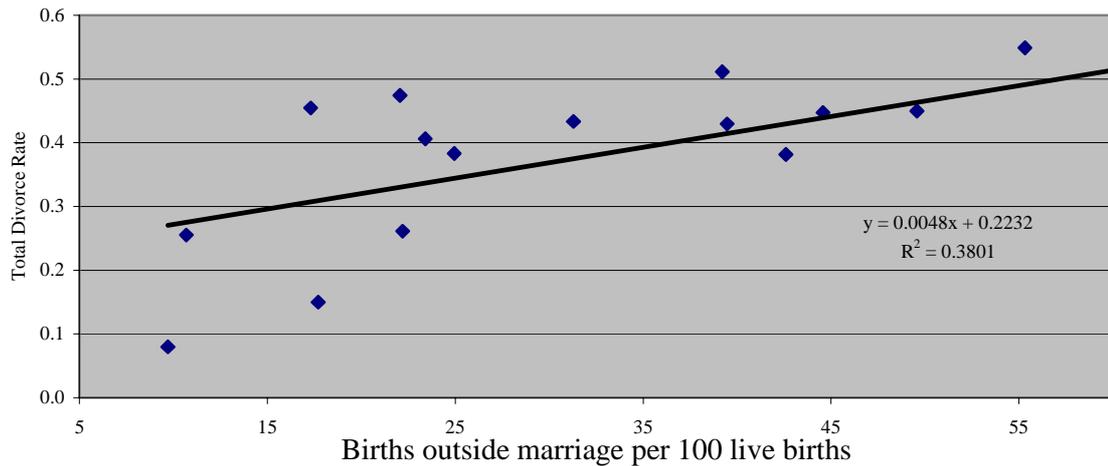
The second demographic transition and low fertility

However, although this model may be successful in accounting for differences in living arrangements and other preferences within and between European populations, is less satisfactory when confronted with low fertility. Low fertility (meaning fertility well below replacement level) is also claimed to be part of the SDT 'syndrome'. Indeed few things could be more bound up with concepts of traditional duty, or attended with so much cost and inconvenience, as bearing and caring for children. It would be reasonable, indeed logically necessary given the underlying theory, for populations that score highest on post-material ideational responses and which manifest strongly the other SDT attributes, to have the lowest fertility as well. That is quite strikingly not the case. Comparing national populations, the relationship between the patterns and trends of period fertility levels and other 'SDT' behaviour are the reverse of what might have been expected (Figure 8). Populations most enthusiastic for non-traditional living arrangements within the developed world (NW Europe and the Neo-Europes) tend to have the highest fertility, where the lowest might be expected. Populations with very low fertility are typically those where traditional attitudes towards sexual relationships and living arrangements persist. Thus all the countries of Southern Europe with the partial exception of Portugal, together

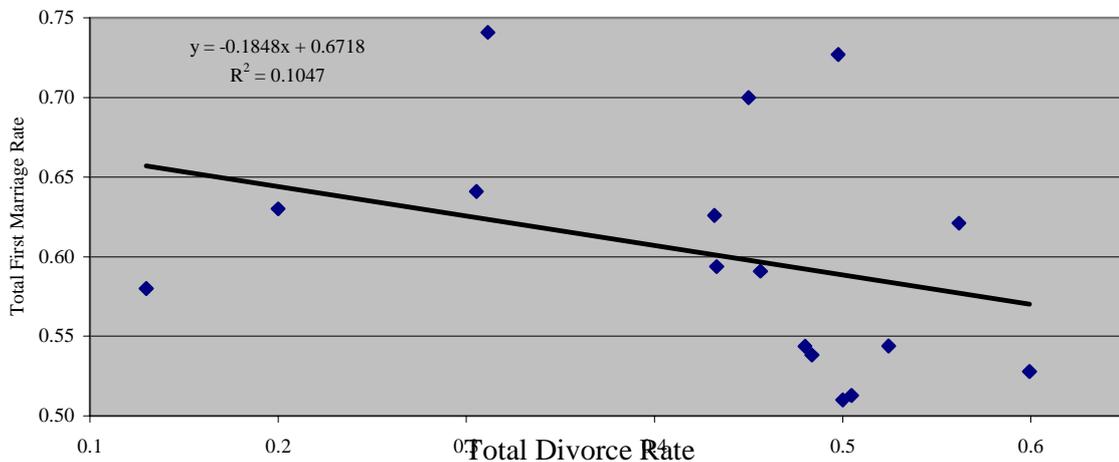
with Germany, Japan, Korea and other developed countries outside Europe, have low or very low levels of divorce, cohabitation and illegitimacy while at the same time they have the lowest fertility rates in the world: (Bettio and Villa 1996). That inconsistency will be taken further in a later section which considers fertility.

Figure 5 Correlation of different SDT variables.

Illegitimacy Ratio and Total Divorce Rate, W. European countries 2000. Source: Council of Europe 2002



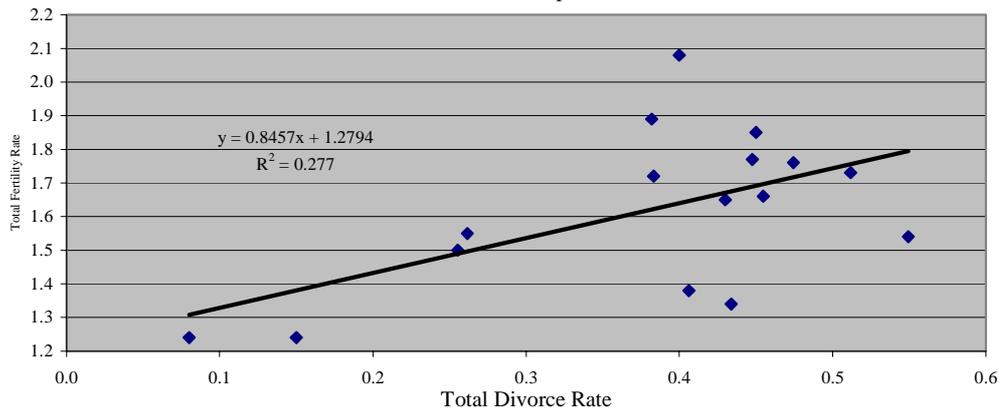
Total First Marriage Rate by Total Divorce Rate, w. European countries, 2000. Source: Council of Europe 2002



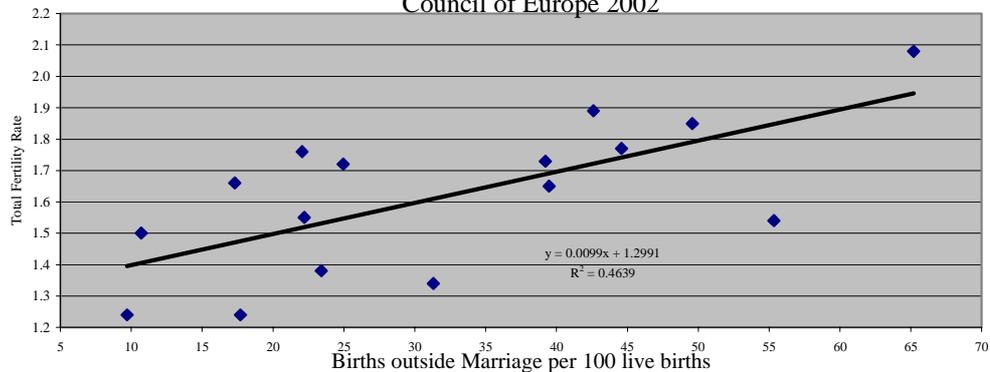
There are, however, other impediments to the unconditional acceptance of second demographic transition theory in its complete form. The ‘first’ demographic transition dealt with the central demographic concerns of birth and death rates and their consequences for population size, growth and ageing. Its reverberations are still with us. Its second incarnation is an altogether lesser affair. The SDT, as argued above, does not deal with the central demographic issue of birth rates. It has nothing to say about death rates or with migration or with any large-scale demographic processes. Instead it is more concerned with micro-sociological events: sexual behaviour and living arrangements. It may also be asked to what extent a ‘transition’ is expected to

be complete and irreversible. The first appears to be both. Even in the ‘progressive’ populations most enthusiastic for the SDT remain highly heterogeneous. Only in very few countries are more than half of all births outside marriage and no population has yet abandoned marriage. In most populations, most marriages are still ended by the death of one of the partners rather than divorce. By contrast, the first demographic transition is complete: family size is tightly clustered around an average of two, 90% of births survive to age 60, and barring migration the end of population growth has arrived.

Figure 6. Total Fertility Rate and Total Divorce Rate, W European Countries 2000. Source: Council of Europe 2002.



Total Fertility Rate and Illegitimacy Ratio, W European countries, 2000. Source: Council of Europe 2002

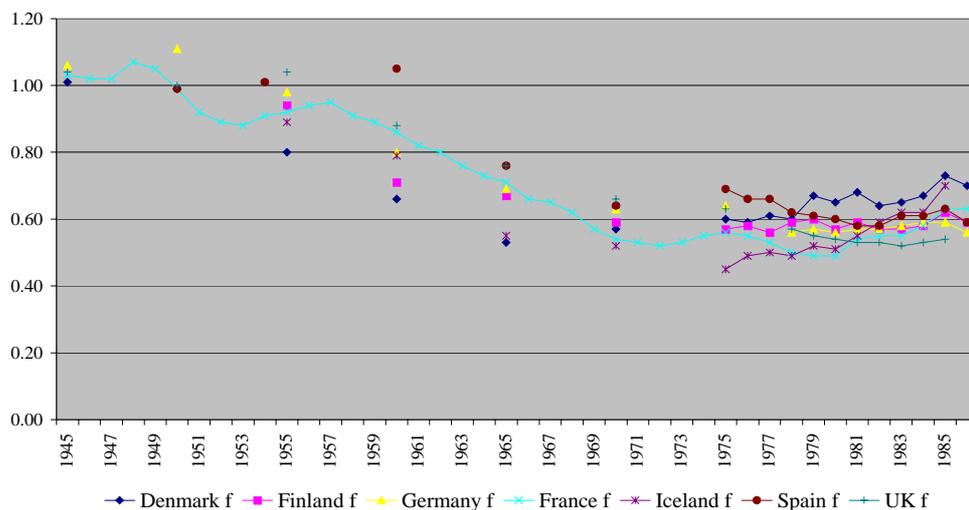


It is certainly true that SDT behaviour is generally increasing even in those populations that have proved most resistant to change, in Southern Europe and Asia. But so far it remains a regionally limited phenomenon, still concentrated in its more developed form North of the Alps though widespread in the English-speaking world overseas. For whatever reasons, the secular trend in second demographic transition behaviour was faltering, or even declining in a few populations by the end of the 1990s. Lack of increase in divorce may be simply an unsurprising consequence of the smaller and more selective part of the population that has married in recent decades. But the upward trend in total first marriage rates seen in some countries recently requires more explanation (Figure 7). Little work has been done, however, on analyzing the tempo and quantum effects of marriage rates and therefore not too much should be made of this observation. Application of the Bongaarts-Feeney methods to total first marriage rates (with the usual cautions) has shown that delay in marriage

accounts for the greater part of the apparent reduction in propensity to marry in the middle 1990s. For example in Bulgaria, Hungary and the Czech and Slovak Republics, adjustment returns the TFMR from about 0.6 to about 0.8 although the final value for Bulgaria returns to a low level (Philipov 2003 pp 108 – 109).

Figure 7.

Total First Marriage Rate, selected countries 1960-2001



Those third-world populations which have reduced vital rates in a spectacular manner, have so far shunned cohabitation and births outside marriage. Advocates of the SDT idea present this marked international diversity, for example in cohabitation and births outside marriage (Figures 5, 6) in somewhat Hegelian fashion, as evidence of populations inexorably proceeding to a common destination, only at different speeds. They may be right, but this ‘transition’ may stall half-complete, much as did the earlier Reformation which made little progress beyond the Alps. Some populations in the Western world have remained notably resistant to it, particularly Asian immigrants and most of all Muslims. Arranged marriage with spouses from the countries of origin is prevalent in many of those immigrant populations. This is, in part, because even co-religionists who have been brought up in the ‘enlightened’ and emancipated West are not considered to be suitable marriage partners lest they have imbibed some of the values under discussion here. In fact the younger generation of Muslims in Europe is showing signs of reverting to a more traditional Islam, demonstrated publicly through the wearing of headscarves and other outward signs of ethnic solidarity. That is not the way of the Second Demographic Transition.

Transitions must, presumably, be sustainable. The underlying theory of the SDT posits radical ideational change made possible by economic progress. Are the ideational insights, once attained, irreversible irrespective of the standards of material security which made their realisation possible on a large scale? Wealth emancipates populations from anxieties about material needs and, in Europe, supports the welfare states and social housing policies on which choices of living arrangements at least partly depend. Or a variety of those welfare programmes have already been checked or reversed in many western societies from Sweden to New Zealand. High levels of divorce and lone parenthood transfer some of the costs of the consumption of women

and the production of children to the general taxpayer, They may not be affordable in the long run. In the UK for example, divorce adds about 15% to the UK benefit bill. In the UK divorce creates three households for every two that existed before, and it is the quickest route out of owner-occupation into state subsidized 'social' housing (Holmans et al. 1987).

Can modern economies afford the long-term costs of the second demographic transition as well as the unavoidable and permanent drag on economic growth presented by population ageing? Furthermore, lone parenthood tends to inflict psychosocial as well as material handicaps upon children brought up in fragmented or unconventional households, compared with those in intact families – specifically in respect of school performance, discipline and subsequent parenting (Kiernan 1992, Ermisch and Francesconi 2001a and b, Osborne et al. 2003). This, however, may be a special feature peculiar to the circumstances of the UK and the US, where a higher proportion of children in non-marital households are brought up with only one parent than is the case in Europe. The age of entitlement may only temporarily have insulated people from the consequences of their reproductive actions and thereby only transiently permitted a wider spectrum of behaviour.

The empirically observable demographic trends charted above are, of course, indisputable. It is less clear, however, that they can all be swept up as evidence for the diffusion of ideas and attitudes specified by the SDT theory. A plurality of explanations may be more suitable, depending on circumstances. For example, is the continued high level of teenage childbearing, mostly to mothers without partners, observed since the 1970s in the UK and the US a component of the enlightened and self-realising behaviour envisaged by the SDT? Or is it instead, as both those government believe, a pathological manifestation, harmful to the interests of mothers and children, against which policy measures are appropriate? More generally, is the ideational change theory sufficient for a full explanation of the upward trends in divorce, cohabitation and the rest? Less ambitious, more conventional economic theories based on rational choice, not necessary contradictory to SDT theory, have also pointed out the drawbacks of conventional marital unions and the advantages of ambiguity when women are financially independent of men through their own work and as well, if not better, educated (Ermisch 1991, Ermisch and Francesconi 2000).

The Second Demographic Transition in Central and Eastern Europe

The recent trends in Central and Eastern Europe, and in the European republics of the former Soviet Union, provide another example where a plurality of explanations may be needed to account for diverse situations. A persuasive case is made out for the diffusion of new modes of behaviour – rising cohabitation, divorce and births outside marriage – in many of these populations during the 1980s, before the collapse of communism, as part of a process of modernisation. This argument is particularly convincing in relation to the more prosperous parts of the region (Sobotka et al. 2003, Lesthaeghe and Surkyn 2002). However this view may encounter more difficulties when confronted with some of the material realities of the less prosperous sectors of the former Communist countries. First, in general it is difficult to see how post-materialist sensibilities, normally regarded as requiring for their nurture a secure material situation, could flourish in the serious economic downturn and heightened employment and political insecurity of the post-communist period. Furthermore, in some senses the restricted choices available in communist times went hand in hand

with a high level of certainty and assurance about crucial life events – guaranteed education and employment, for example (Philipov 2003 p. 156). Accordingly it has been suggested that communist society, with its certainties, might have been a more fruitful environment for post-materialist views than was its aftermath (Kyveldis 2001).

Elsewhere, however, especially a more local level, apparently ‘classical’ SDT behaviour (e.g. high levels of births outside marriage) might be due not to individual empowerment but to quite different, and more socially pathological, developments, related to the prevalence of ‘anomie’ and disorganisation among the poorer elements of the population distressed and unsettled by recent changes.. The highly discontinuous rapid increase of births outside marriage in Bulgaria and Romania, after over two decades of negligible change, are particularly noteworthy (Figure 4). These populations were among the poorest of the CEE countries under communism, are still substantially rural and have so far failed to make effective economic or political transitions, remaining in a weak economic position (Åslund 2001). Yes despite this unpromising theoretical environment for SDT, their proportions of births outside marriage exceed those in more prosperous, more Westernised countries in Central Europe. Furthermore demographic changes of this type are apparent even in the most geographically isolated and socially marginalised populations in those countries - Turks and Gypsies – who are perhaps the least obvious candidates for progressive ideational change.

Finally, it is necessary to account for the considerable heterogeneity of the changes in SDT-like demographic processes during the communist period. For example, in Estonia even in the 1960s most of these innovations were becoming prominent: cohabitation ranked third in Europe; births outside marriage, early sexual experience were common in a society where female education was surpassing that of males, where female work participation rates were high (in the socialist fashion) and attitudes were becoming more individualistic. Nonetheless the fertility level did not decline but increased almost to replacement rate (Katus 2003).

Methodological innovations in the 1990s

Analysis of this increasingly diverse behaviour and its correlates has been greatly enhanced during the 1990s by methodological innovations. The most prominent is event history analysis, a set of formal techniques for integrating information about life events described as ‘the most important new paradigm in demography (Willekens 1999), shifting attention from macro to micro analysis and from structure to process. As Willekens points out, life events: leaving the parental home, sex, cohabitation, childbirth, employment, migration are milestones that dominate the concerns and actions of individuals. Using a statistical basis of proportional hazard techniques, event history analysis uses non-linear models to integrate and compare these events and histories, and relate them to individual circumstances. It permits more realistic analyses beyond the reach of even the most sophisticated classical macro-approaches using multi-state life tables (Courgeau 2002). As noted below, however, such concentration on individual-level processes risks losing sight of the traditional large scale concerns of demography which are just as important as ever. However, multi-state modelling (Goldstein 1995), scarcely known in the 1980s but which has become much more widely used in demography in the 1990s, has enabled individual level data and aggregate ‘ecological’ variables (which may have no equivalent at the individual

level) to be incorporated into the same statistical analyses (see e.g. Lievens 1998). These techniques have enabled the true pattern of demographic events to be determined, independently of other influences, sometimes revealing that the true picture is quite the reverse of that which might be supposed by inferring individual results from aggregated data.

At the end of the day, event-history analysis cannot of itself be the final demographic paradigm. Its function is to clarify sequences and relationships between life events. It only provides a means for analysing their causes in terms of sequences of events; it provides no mechanism for the analysis of ultimate causes or consequences of the events in terms of independent variables. That must surely be regarded as the higher aim of demography. In short, in the broad sense it is not a demographic theory. The marked enthusiasm for event-history analysis in some circles seems to have been at the expense of analysis of larger-scale analysis of, for example, the effects of population change on the environment or on individual behaviour. That risks confirming the accusations that demography as an 'object science' (Dykstra and van Wissen 1999) is a theory free subject, being more concerned with description and technical analysis, albeit now at a the highest possible level, than with explanation. Event history analysis presents the raw material for theory to work on; it provides no explanation of its own.

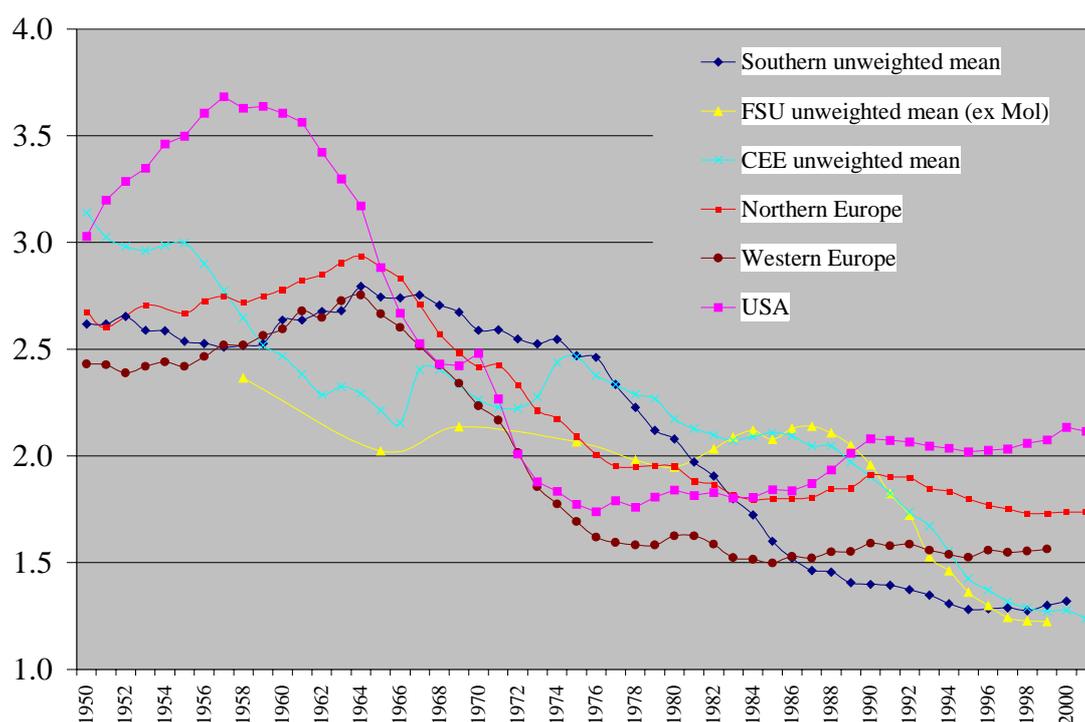
Brief mention should be made of some valuable new sources of data intended to analyse new demographic developments in the light of second demographic transition ideas, providing retrospective life-histories suitable for event-history techniques. These are the set of standardised international enquiries into partnership and reproductive behaviour promoted by the Family and Fertility Surveys of the UN ECE mounted in 24 countries in the early and mid 1990s (Cliquet 2002), now to be followed by a new round of 'Gender and Generation' surveys adopting a developed theoretical perspective.

The future of fertility and the end of growth

Sub-replacement period fertility became universal in Europe in the 1990s, with the possible exceptions of Iceland, Albania and Macedonia. It was first achieved in some western countries in the 1930s, a point often overlooked. But in the post-war period, after the 'baby boom', below replacement fertility was resumed in Western countries in the early 1970s and has now persisted for a generation. Greece, Portugal and Spain joined this group with extraordinary synchrony and speed a decade later, falling to low levels not surpassed until the post-communist crisis of Central and Eastern Europe and the former Soviet Union took period fertility to the lowest levels yet recorded. The conventional - but far from perfect- measure used here is the period Total Fertility Rate (TFR): the sum of the age-specific fertility rates in a given

calendar year. That measure indicates the average family size per woman, were those age-specific rates to persist over the real fertile lifespan from age 15-49, or, as the late Gérard Calot would have preferred to emphasise, the weighted propensity of recent cohorts of women to replace themselves in the population. The European countries fall naturally into a small number of groups through a consideration of their geography, culture, language and demographic behaviour (Grasland 1990, Pinnelli et al. 2002). In 2001 the mean TFR of the four Southern countries had fallen to 1.32, that of the 6 CEE countries 1.24, and that of the European Republics of the former Soviet Union (FSU) to 1.22 (Figure 8).

Figure 8 TFR trends, groups of developed countries



These fertility patterns not only differ in their overall average level but also in their components of childlessness and parity distribution – there are several routes to low and very low birth rates. In NW Europe below-average family size has been driven down partly by high levels of childlessness – 20% is normal and in Germany up to a quarter of women reach age fifty without children. France is an exception. At the same time quite a few women – up to 34% - in France and Northern Europe still go on to have third or even fourth children (Table 1), even though childbearing starts particularly late. In Southern Europe by contrast, childlessness until recently remained relatively uncommon but family size seldom exceeds two children. In Italy and Spain, however childlessness is increasing to nearly 20%, without the compensation of higher parity births so that fertility at all parities is low. In Eastern Europe most of the populations are in retreat from the former pattern of near-universal and early childbearing, with families completed by age 30 (UNPD 2003). In Russia especially, recent rates suggest that 90% of women will have a child but only 75% will have any others; according to Avdeev (2001), the Russian one-child family is here to stay.

Table 1 Distribution of women born around 1960 by children ever-born (percent)

	Children ever-born				total
	0	1	2	3 or more	
Russian Federation	8	30	44	18	100
Sweden	14	16	40	30	100
Italy	15	25	42	18	100
Germany	26	25	30	19	100
France	14	20	32	34	100
United States	15	19	32	34	100
Japan	3	44	40	13	100

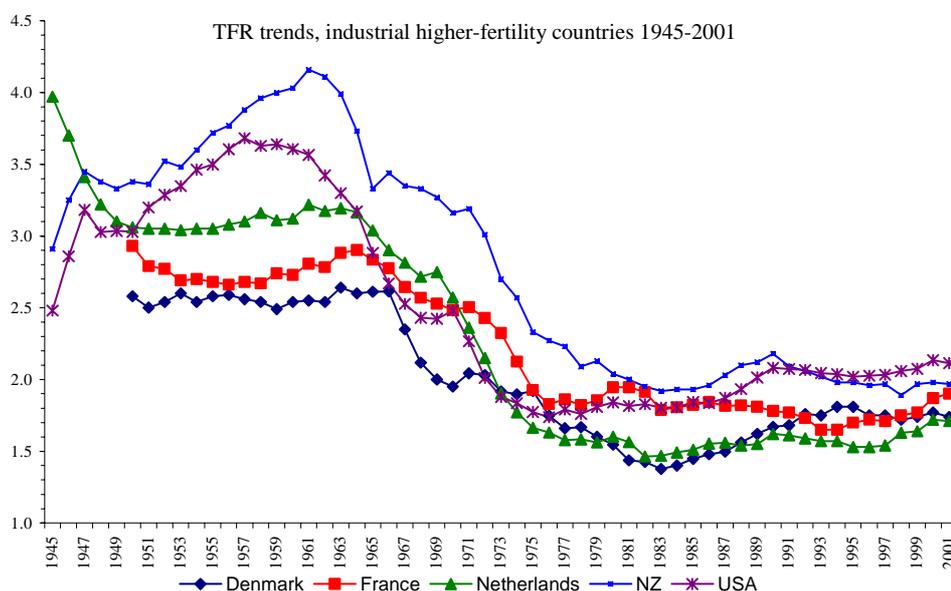
Source UNPD 2003 table 28 p 83 (mostly from Eurostat)

These ‘lowest- low’ levels, defined variously as period levels below 1.3 (Billari et al. 2003) or 1.5 (Caldwell et al. 2003) seem now to have reached their nadir. Average fertility in two of these ‘lowest-low’ fertility regions ceased to decline around 1996, although that in the 6 CEE countries is still drifting down a little, thanks to continued small falls in two of the Catholic countries of the region in which decline was late (Poland and Slovakia). In the national championships for the lowest fertility ever, Bulgaria in 1999 and Latvia in 1998 share first prize (both 1.09) unless the example of the former German Democratic Republic be admitted (0.77 in 1994).. Lowest-low fertility is even more widespread in smaller (but still very large) sub-national populations, below the national level. Large areas of Northern Italy and Spain, for example – exceeding in population size many of the countries of Western Europe - have had period TFRs less than 1.0 for most of the 1990s.

It is no longer true that Western countries have a declining birth rate

The Western part of the continent has reached an apparent fertility equilibrium. Birth rates generally ceased to decline over 20 years ago, at a somewhat higher level than elsewhere in Europe. Up to 2001 the TFR remained about 1.75 in Northern Europe, about 1.6 in Western Europe. At the least a superficial stability, and during the 1990s a slight tendency to increase, have been the typical trends (Figure 9).

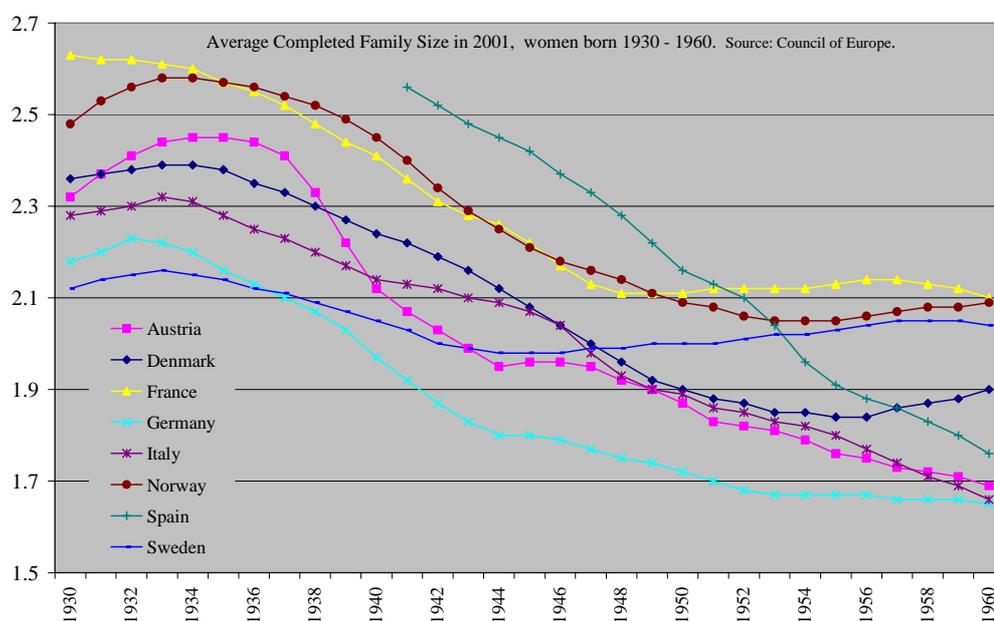
Figure 9.



Our conventional period measure of fertility, however, is vulnerable to shifts in the timing of births. As is well known, when births are delayed, the period measure will be deflated if the same number of births become distributed over a larger number of years. Completed family size can remain as it was, as long as births postponed earlier are produced later in life. Whether they will be is the big unanswered question. Delay in the production of the first birth has been strong and universal in Western Europe since the 1960s, and has become marked in the CEE and FSU countries since the mid-1990s. Recuperation is less certain.

The completed family sizes of women approaching the end of their childbearing career, at age 40, have also moved steadily downwards from their post-war peak. In the most extreme case, the last cohort of Germans to replace themselves in the population was born around 1933. However the picture today, dominated by women in their peak childbearing years ten to fifteen years ago, is somewhat different. In 13 out of 38 European countries for which data are available, women born around 1960 had produced at least 2 children on average by 2001, that is by the time they passed age 40. Five were in Western Europe; Iceland, Ireland, France, Norway and Sweden. Twelve years previously, in 1988, the picture was one of continual decline in all these countries except Sweden. Now a more diverse pattern of cohort fertility has emerged. In Denmark, Norway and France completed family size has remained at about 2, even increasing slightly over the decade. The low German average has stabilised at just under 1.7, about to be joined, and possibly undershot, by the averages of Spain, Italy and Austria where decline up to 2001 has continued apace to well below two children (Frejka and Calot 2001), (Figure 10).

Figure 10 Completed Family Size, selected countries, women born 1960.



These data on completed family size at 2001 reflect the social and economic environment of the 1980s and early 1990s, when these women were producing most of their children. The crucial question relates to the intentions, and the behaviour, of women now in the late 20s and early 30s whose families have yet to be completed. Continued delay in childbearing makes recovery to replacement rate increasingly

unlikely in the Southern populations, at least for cohorts now in their 30s which have so much to recuperate and so little time to do it (Frejka and Calot 2001, Lesthaeghe 2001). Recuperation to sub-replacement levels much closer to two is more plausible in Northern populations and especially in the Netherlands. The Dutch (with the Japanese) are the oldest mothers of first babies in the world, but (unlike the Japanese) they also have one of the highest levels of fertility over age 30.

1960 – a bad base for comparison

Before continuing it is desirable to put these data into longer-term perspective. In most analysis of period fertility and mean age at first birth, data series start in 1960 – partly because this is the first year of the very convenient time-series produced according to the Calot method by Eurostat (2002) and by the Council of Europe (2002) in their annual publications. But if one were starting to analyse Western demographic trends, one should not be starting from there. The 1960s were the peak of the post-war baby-boom, with the highest post-war TFRs since the 1920s and the lowest mean age at marriage and of first birth for centuries. In Western populations, mean age at marriage and childbirth was traditionally high, well into the 1930s. The transient baby-boom peak of period fertility was also much higher than the TFR in the 1950s and the 1930s in many countries. The 1930s mark the true end of the first demographic transition in that it saw fertility fall to replacement levels – and in many cases below replacement levels – for the first time since the beginning of the transition. This decline should not be attributed just to the depression years: it was a linear continuation of previous trends. Fertility fell to low levels even in those parts of Europe which were experiencing low unemployment, high levels of economic growth and new investment, such as the South-East region of England. Mortality rates were of course somewhat higher then; so that replacement fertility was a little higher than 2.1. Table 2 below shows TFR around 1930, 1950 and 2001 together with the net reproduction rate, a period indicator of the number of surviving daughters produced by each women and by extension of the implied rate of population replacement.

		1930s		1950		2000	
		TFR	NRR	TFR	NRR	TFR	NRR
1935	England and Wales	1.78	0.76	2.18	1.02	1.65	0.79
1935	Scotland	2.17	0.91			1.48	0.71
1932/4	Australia	2.15	0.96	3.06	1.48	1.70	0.82
1933	New Zealand	2.16	0.98	3.38	1.63	2.01	1.96
1931	Canada	3.19	1.32	3.46	1.74	1.48	0.71
1933	United States	2.14	0.94	3.03	1.60	2.14	1.05
1934	Sweden	1.67	0.75	2.32	1.04	1.54	0.75
1933	Germany	1.64	0.91	2.09	0.85	1.38	0.69
1935	France	2.06	0.87	2.93	1.26	1.89	0.91
1930/2	Italy	3.29	1.24	2.47	1.09	1.24	0.58
1926/7	Ukraine	5.09	1.68	2.81	1.29	1.10	0.88
1929/31	Japan	4.76	1.54	3.65	1.19	1.36	0.65

Note: NRR for '1950' is actually for period 1950-55 (from UN). Sources: Glass and Blacker 1938 Table V, Council of Europe 2002 Table 3.6 (NRR)

UN World Population Prospects 2002 Vol. 1, National Statistical Yearbooks.

Needless to say there are many important differences between the low fertility of the 1930s and that of the present day. Unlike today there was no long history of low period or cohort fertility, so the age-structure was still youthful and could generate many years of natural increase even without replacement fertility. Today, that positive momentum is nearly exhausted in many European countries, especially those in the East which did not experience a 'baby boom'.

Understanding low fertility

Trying to understand low fertility has preoccupied Western demographers for some time. It used to be assumed, for no very good reason, that fertility would stabilise at replacement level at the end of the first demographic transition. That has not happened, and recent conclaves of demographic Magi could find no reason why it should (Demeny 1997, UNPD 1997, UNPD 2002). So what is going to happen next? Have European populations come to rest at a new equilibrium and regime of fertility, no longer declining to zero, but stabilised as levels below, or very substantially below, the replacement level? Might it resume its decline, given that economic theories of fertility predict no lower limit in modern circumstances (Namboodiri and Wei 1997). Or can fertility recover, even to the replacement level? The social and economic implications of continued decline are obvious. The implications even of stabilisation at current levels are very substantial.

The first problem is to decide exactly what is going on. As we all know, current fertility rates are not quite what they seem. These single-number period indices condense information from the multiple processes underlying fertility: the timing of its onset, the intervals between births, the chances of going from one birth to the next or remaining childless, the final completed family size. Low fertility may have come of age in the 1990s but its study is in a state of rapid flux, with unprecedented developments in technical analysis in the last decade leading to somewhat divergent interpretations of the simple data presented above. How to interpret today's current low levels of births, and what they imply for the future, is by no means agreed.

The single figure measures naturally tell us nothing about the pace of childbearing or the distribution of births, or of childlessness, among the women in the populations being measured. It is well known that low period fertility has been accompanied and to a considerable but disputed degree is a consequence of substantial delays in the onset of childbearing in all European populations, as in almost all other parts of the world in recent decades. At the same time more women have remained childless and larger families, of three children or more, have become less numerous. The average family size of women who have completed their childbearing has fallen everywhere to 2 or in some cases substantially less. The rapid onset of delay in childbearing was most marked in Southern and especially in Eastern Europe and the FSU. There, childbearing traditionally started much earlier than in Western Europe. Hence the scope for delay, and for consequent deflation of period measures of fertility and marriage, has been much greater.

It is not yet clear where the process will end, and how far it is 'postponement' of births which may eventually be delivered, or a reduction in the quantum of children ever to be born. Delay in childbearing continues in most countries (Figure 7), although in some the pace is slowing down (France, Netherlands). So substantial has been the delay in Italy and Spain that they have overtaken most NW European

countries to become, together with Japan, the oldest mothers in the world. The scope for this effect in the CEE and FSU is also much greater than elsewhere. There, until the late 1980s, marriage and (near-universal) childbearing traditionally began much earlier than in Western Europe, so the scope for tempo effects as well as quantum changes is much greater (Kohler et al. 2002, and this conference).

Index wars

Much technical progress has been made in addressing this problem of measurement, greatly aided by the advances in computing power in the 1990s. The essential problem is to see how much of the decline in period measures such as the TFR is due to postponement of births and how much to a reduction in quantum. If much of the fall can be assigned to a delay in timing then the eventual consequences for population decline and again may be considerably less than the current figure suggests. There is little agreement as to how this can be done, and even indeed if it is meaningful to do so at all rather than using real cohort measures. It is impossible here to go into the minutiae of these index wars. Very briefly, one approach is to calculate current parity-progression ratios (the probability of progressing from a given number of births to the next one), on a period basis. Summing these ratios gives a parity-based estimate of TFR free of the tempo distortions that arise when age-specific rates are employed. But all that requires additional assumptions of various degrees of plausibility, and usually additional data on duration of time since the previous birth. Such data are seldom available (Ni Bhrolchain 1987, Feeney and Yu 1987, Murphy and Berrington 1993, Kohler, Billari and Ortega 2002).

An alternative approach, which makes fewer demands on data, is to adjust the period age-based TFR by measuring the delay in timing of births by birth-order as precisely as possible and to re-assign the delayed births to the calendar year, and age of women, in which they would have occurred had the delay not arisen (Bongaarts and Feeney 1998). This method of adjustment suggests that period measures in Western Europe understate the 'real' recent level of fertility by between 0.2 and 0.4 children. That still leaves most of them below the replacement rate, although to a less alarming degree than that indicated by the conventional, un-adjusted TFR. Similar calculations applied to Eastern European populations suggest that at least until the mid 1990s the great falls in period TFR in many of those countries (not Russia) represented very little change in final quantum, as tempo adjustment restored them to an average of nearly two children (Philipov and Kohler 2001). On the other hand, similar calculations applied to the republics of the former Soviet Union as well showed hardly any tempo effect up to 1995. There, it seems, births were being reduced across the board, implying a substantial reduction in completed family size or 'quantum' (Macura et al. 2002, Avdeev 2001).

Recuperation

Delay in childbearing implies a degree of recuperation of fertility at older ages, if any of the delayed births are actually to be produced. While cohorts of younger women have (often) not completed their fertility, nonetheless the pace at which they are producing their families permits certain conclusions to be made. If the recuperation of fertility is to be sufficient to maintain a constant completed family size, then biologically and socially plausible patterns of family building must be implied in the uncompleted part of the fertile life span (Lesthaeghe 2001). Comparisons of the reduction of fertility before age 30, and its recuperation after age 30 in recent cohorts

of mothers compared with those born in 1950 allow the extent of recuperation to specified levels of completed family size, achieved by given ages, to be estimated (Lesthaeghe 2001). The Netherlands and France emerge well from this analysis, with increased birth rates among women in their early and late thirties almost sufficient to compensate for the sharply reduced birth rates of younger women, compared with the 1950s baseline. Others, however, notably Italy and Spain, show much weaker recuperation of fertility at older ages and their trajectories indicate a completed family size continuing will below replacement, a continuation at best, and more likely a decline, from the cohort rates at the moment. There, recovery to the fertility levels of 1950 in (for example) would require an accelerated pace of childbearing in the late 30s and 40s beyond anything known to have happened before (Frejka and Calot 2001).

Pessimistic projections of the future birth rate

At least there is some agreement that the 'real' level of fertility is rather higher than it seems in most countries and that period rates can be expected to rise somewhat. That outcome already incorporated in most population projections. There is less consensus on the more tricky problem of the explanation of the independent causes of low fertility, their likely duration and thus the likely future of fertility in Europe. It is fair to say that, in this debate, the pessimists (or perhaps realists) are in the majority for all the reasons noted above. There is a near-consensus that European birth rates will not return in the near future to replacement rate, or even anything like it in Southern Europe and in parts of the CEE and FSU (Lesthaeghe and Willems 1999, Avdeev 2001). National population projections assume continuation of low fertility with only moderate recovery through the process of recuperation; sometimes as in the case of Germany, too pessimistically even for the pessimists themselves. Some assume a continuation of current levels. Expert opinion is widely used for the targets adopted for national population projections. Other projections have used birth intentions from surveys or have taken national plans into consideration, with fertility theories coming a poor third (de Jong 2002, Figure 15). Most national agencies in Europe assume an increase in period fertility by 2020, but none to a TFR as high as 2.0 and only eleven as high or higher than 1.75 (de Jong 2002 Figure 18).

Can birth rates return to a higher level?

Perhaps it is more appropriate to ask why fertility should not fall further. As noted above, the tacit assumption that the transition would end at a convenient stabilisation at replacement level fertility for ever after, is now looking rather inappropriate (UN 2002). Instead attention has been directed to how low fertility can go; to zero, according to some interpretations of economic theory (Namboodiri. and Wei 1997, given the great direct and indirect net material costs of children in modern society.

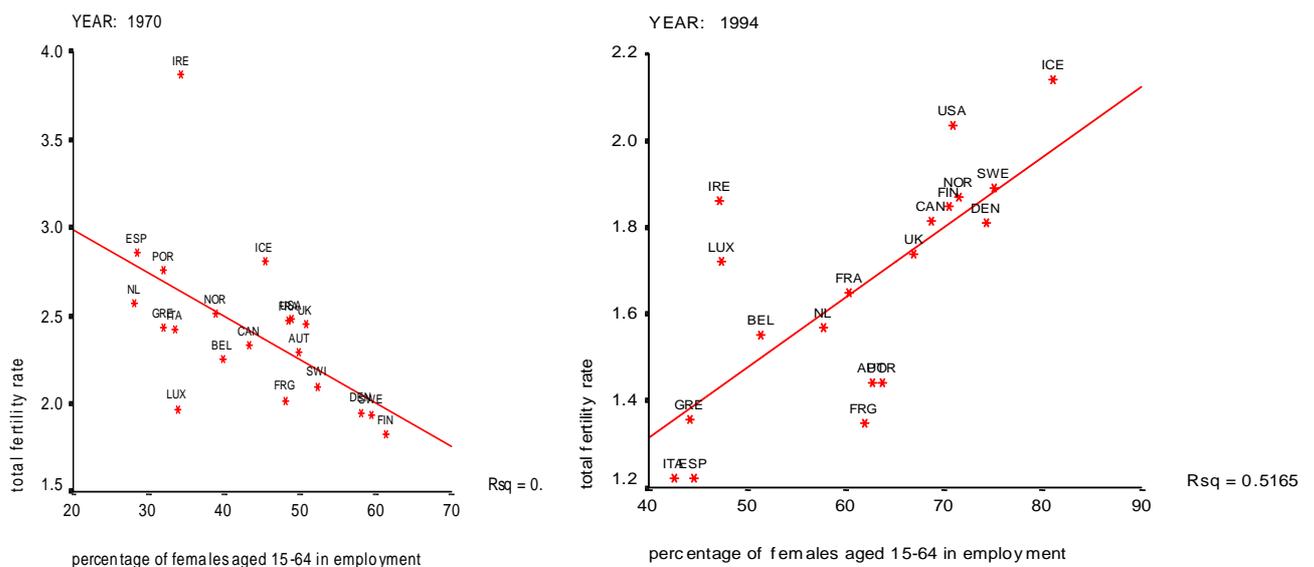
Some irreversible socio-economic trends, themselves desirable, seemed inevitably likely to continue to depress fertility. The classical Malthusian relationship suggested that increases in men's real wages and the economic growth which fuelled them would tend to increase marriage and birth rates in stable societies, and vice-versa when times were harder. The Becker model (1981) is a sophisticated re-working of Malthus. It posits, without explanation, a desire for child 'services', mostly of a psychological nature. In a stable situation these would be satisfied more easily (once basic needs were satisfied) by the better off. Other things being equal, economic upturns would have the same positive effects on fertility throughout society. This

theory can say nothing, however, about the number of children required to satisfy the desire for them.

New Home Economics models took into account the increasing importance of women's paid work in the post-war period and of their contributions to the household budget. That new development nullified or reversed the old Malthusian relationship based on men's income only, because women did not find that child care and paid work outside the home were easily compatible: Choosing one or the other involved a substantial opportunity cost: foregone income, or foregone children (Joshi 1990). As married women entered the workforce, fertility must necessarily decline *ceteris paribus*. Furthermore women's economic independence made marriage itself less attractive; it became rational to postpone such commitment or avoid it. Cohabitation became a more suitable compromise in societies that tolerate it (Ermisch 1996); in those that do not, birth rates fall even further. Relatively high women's workforce participation became established in northern parts of Europe and in North America by the 1970s, its effect fortified by equal pay legislation. Counter-cyclical relationships were then expected to prevail whereby the upturns of the business cycle, or longer term trends bringing women into work, would neutralise, or even reverse (Butz and Ward 1979), the formerly expected positive effect of economic growth cycles on birth rates.

Opinion is divided on how well the transition in the labour force and of the inputs to household budgets fits the European and North American fertility patterns from the 1970s: certainly not well enough for some critics (Murphy 1992, Robinson 1997). The upturn of the baby boom from the 1950s was fuelled by unprecedented economic growth in the Western world (Crafts and Mills 1995). In the absence, at that time, of

Figure 11 Women's workforce participation rate and TFR, 1970 and 1994. Sources of data: Council of Europe and Labour Force Surveys.



high levels of female workforce participation, it may be regarded as the last fling of the old direct Malthusian relationship between male wages and births. In those classical terms the subsequent end of the baby boom, after the mid-1960s, is quite

inexplicable. Real wage growth continued but high birth rates did not. New Home Economics models that take into account the rapid increases in women's workforce participation, and of equality of pay, of the 1970s and onwards fitted the new situation rather better (Ermisch 1979). Up to the 1980s the expected time-series and cross-sectional negative relationship between period fertility levels in the western world, and women's workforce participation rates, was well established (Figure 11). Modern emancipated societies where women joined the workforce and thus did what they wanted, then had the lowest birth rates.

However by the 1990s the position had changed radically; the cross sectional relationship was significantly and obviously reversed (Figure 16). Taking all the Western countries together, the only national populations with relatively high birth rates (TFR over 1.5) are those with relatively high levels of female workforce participation (Coleman 1999, Ahn and Mira 2002). Women's paid work had become at least partly compatible with childbearing and child-care in some of the Western countries, notably the United States and North-western Europe, although much less so in Germany, Austria and the South. Modern emancipated societies where women go out to work now have the *highest* birth rates. This contrast between countries is mirrored at the individual level: for example since the 1980s, in Norway and some other countries, women at work are just as likely as those keeping house to have a third child (Kravdal 1992). In Sweden's roller-coaster fertility trends, pro-cyclical fertility is observed, with levels of female earnings now positively related to levels of childbearing (Andersson 2000). It must be kept in mind, however, that a high proportion of women's work, especially in the peak childbearing years, is part-time, and opportunities for part-time work vary greatly between countries, being particularly restricted, for example, in Germany and Italy. The correlation with fertility is less strong when only full-time work, or hours of work, is considered.

Economic models of fertility have yet to provide a specification of the nature of demand for children, or of 'child services' or 'child quality', to explain why modern parents should want any at all. Perhaps no wonder that Robinson (1997) summarised a review of the economic theories of fertility by commenting: 'the economic model seems bogged down in a simplistic demand-oriented framework, with the unnecessary and confusing 'quality of children' notion clouding everyone's thinking' (p 70-71). The limited success of economic models of fertility has given indirect support to theories of a more cultural or ideational nature about the chief influences on fertility in prosperous countries. It has also focussed attention on the effects of family policies and 'institutional' effects more broadly; all the other intended and unintended consequences of government action (Gauthier 1998, DiPrete et al., in press). In theory at any rate, economic theories of fertility are not without room for ideational factors and ideational theories leave space for economic effects, not the least in the creating the right conditions for wider freedom of choice. At least it is clear that the social, cultural, political and policy environments in NW Europe and in the US seem in their different ways to be much more 'family-friendly' than that of Southern Europe, Eastern Europe and the Asian industrial countries. Teasing out which is the most important of these factors has proved to be very difficult, a point considered further below.

Both economic and ideational concepts are deployed in individual-level analyses of fertility behaviour through life-course analyses and more traditional multivariate

approaches. Inevitably these reveal a higher level of indeterminacy than aggregate-level approaches. There is a strong element of randomness and unpredictability about individual family building, thanks to the uncertainties to which individuals are prone, the negotiations between couples (Voas 2003), and the chances of accidental pregnancy or of failure to conceive a wanted child. Individuals are not much better than demographers at predicting family size. Surprisingly high proportions of births in modern societies – perhaps a quarter- are still reported to be unwanted in respect of timing, and some are regretted altogether. On average the errors roughly balance out, usually on the side of deficit, the more so when births are delayed. A higher-level element of indeterminacy may also be important: simply following fashion in childbearing might lead to random switches from relatively high to relatively low birth rates unrelated to and unexplained by the conventional rational choices and ‘risk factors’ normally associated with family formation (Kohler 2001).

Gender equity

The success of cultural and ideational models in accounting for some recent demographic behaviour was noted above, together with reservations about the degree to which these ‘Second Demographic Transition’ ideas might be applicable to the explanation of low fertility. Even though some analysts have been at pains to emphasise that economic models and ideational models of fertility need not be contradictory, in practice the notions and data of the one are not easy to incorporate in the other and the literature remains somewhat antithetical.

Just as ‘New Home Economics’ models have helped to put women back into the economics of fertility, the notion of ‘gender equity’, which has become prominent during the 1990s (McDonald 2000) may do the same from a more cultural viewpoint. Equality between the sexes is part of the progressive package of modern ideational change. The central position of women in both economic and ideational models may help reconcile their apparently conflicting interpretations, in societies where men are becoming more like women, and women more like men.

The symmetry of sexual equality in the public and in the private realms is thought to be crucial. Asymmetry between them, in modern societies, leads to very low fertility. In most Western countries, opportunities for women in employment, education and public life (so -called ‘economic gender equity’) have advanced considerably, promoted, to varying degrees, by legislative change and equal opportunities policies. However, if these trends are not matched by equivalent changes in that society’s ideas about equality in the private realm, on domestic tasks, the care of young and old family members and in sharing other responsibilities, then fertility may be severely constrained. Women trying to work in both realms become overloaded with too many tasks. While cultural and legislative changes have permitted, at least to some degree, greater freedom of movement to women in the public realm, division of labour in the home is still much more traditional in the societies of Southern and Eastern Europe, and in the developed countries of Asia. That is, women do all the work.

The attractions of the labour market, the welfare arrangements for young and elderly dependants, if any, the familial pressure faced by women to produce a child and care for elderly parents may all pull in different directions. Low levels of fertility combined with low levels of childlessness, notably in Southern European countries, thus arise from a tension between unequal levels of gender equity in different social

institutions of society. New opportunities similar to men's in education and work are in practice curtailed by obligations to children, to husbands and to the older generation inherited from an older regime of 'familistic' values. In those circumstances women will satisfy the obligation to produce a family to the minimal extent, for the most part avoiding childlessness but restricting subsequent children severely (McDonald, 1997). At the same time, workforce participation rates will remain lower than they might be while husbands' participation in housework and childcare remain minimal (Kiernan 1996). The same 'familistic' culture, which at the micro-scale expects families (i.e. women) to care for their own family members young and old, has larger scale connotations. In such societies political pressure for the high levels of public family support and old-age care, taken for granted in North-West Europe, has been weak until recently (Gauthier 1996 and 2003). 'Familist' culture surviving into the modern world means in practice more work for women, less help from public resources.

In Italy and Spain and Greece, three-generation families, although comprising a minority of households, are still more prevalent than in Northern Europe. Furthermore adult children there, as in developed Asian countries, appear much more content to remain living with their parents than in Northern Europe. Despite being at home and working, adult children can enjoy conditions of considerable personal and economic freedom, be well looked after by devoted mothers, and avoid the inconvenience of moving out to live in separate households (Castiglioni & Dalla Zuanna, 1994, Palomba 2001). Their situation in Southern Europe parallels that of the 'parasite singles' of Japan. Many factors contribute to this: a preference by mothers, however exploited, to keep their children close, interminable degree courses, a difficult housing market and youth unemployment in a highly protected labour market. All this delays marriage, within which almost all childbearing is still located. Major policy changes to support working women if chronic low fertility is to be avoided in those areas. Insofar as those would appear to require major shifts in traditional culture, they may be a long time coming.

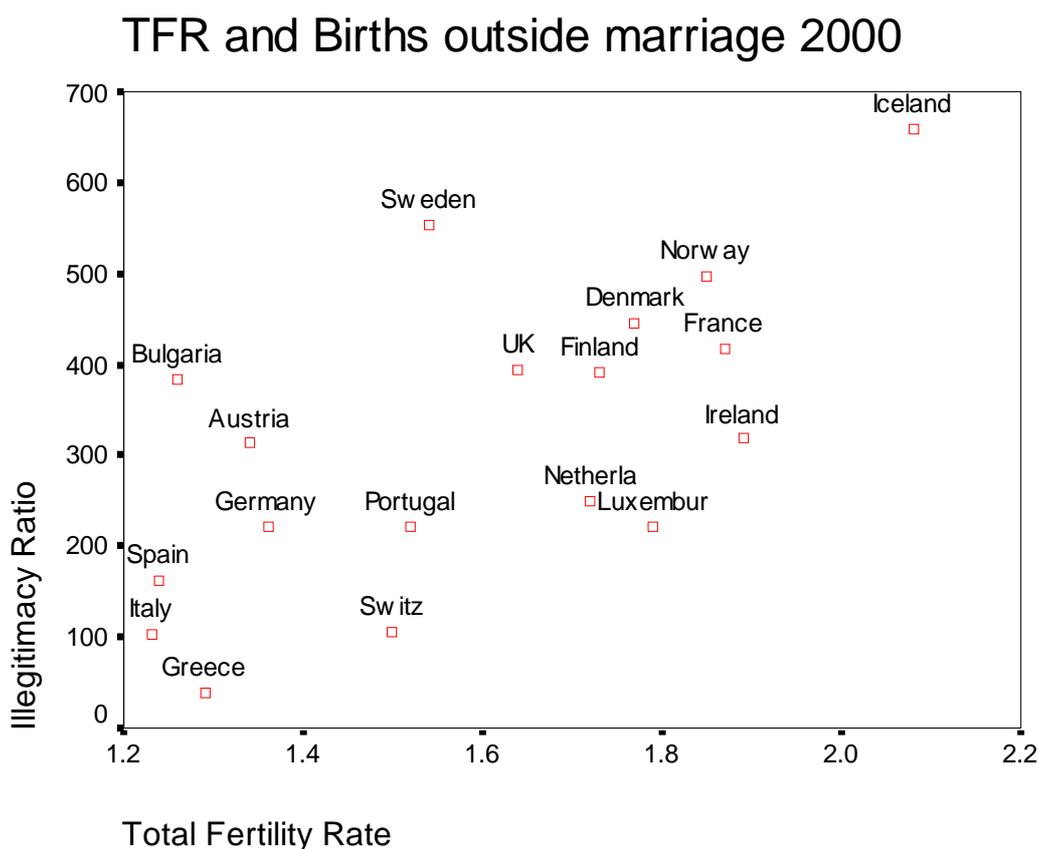
Women do it their way?

The rise of female autonomy, with women overtaking men at school and college, potentially earning the same or more, erodes the value of marriage for women (Ermisch 1986). On purely rational choice grounds, the compromise of cohabitation or living apart together may seem preferable. Better-off women, if they want a child, may be able to dispense with a partner altogether. Are some women only prepared to have children if they can have at least some of their babies in a looser, less constrained relationship? As noted above, relatively high birth rates are only found in those societies which tolerate a relatively high proportion of births outside marriage (Figure 12). Most but not all occur within cohabiting unions. In such countries many women, it seems, want to have children more than they want a firm commitment to a partner (Kravdal 1997). These are, not surprisingly, mostly those countries with well-developed welfare systems and where non-traditional attitudes to marriage, divorce, and cohabitation prevail. Does it follow from this that higher fertility in Southern Europe and the Asian industrial countries must await cultural changes facilitating cohabitation and the emancipation of 'illegitimacy'?

American exceptionalism

The North American examples sit awkwardly in an account devoted primarily to Europe. This is partly because the US example seems to contradict the lessons of Europe, partly because the fertility patterns in Canada and the United States, once very similar, have diverged in the 1990s. Canadian TFR has descended to mid-European levels, while birth rates in the US have increased to become the highest of any major country in the developed world (TFR 2.03 in 2001). The US example is

Figure 12. Source of data: Council of Europe



important because it appears to show an alternative route to relatively high fertility without NW Europe's welfare culture. US fertility patterns are complicated by the salience of higher fertility from some ethnic minority groups. In 2001 Hispanic TFR was 2.75, and black fertility, though somewhat convergent, was 2.05 (Hamilton et al. 2003 t. 1). But even the non-Hispanic white TFR was 1.84. That is a high level compared with Europe, where of course overall fertility is somewhat elevated by the fertility of its own ethnic minorities, which are not usually distinguished in the statistics. American society has developed strong currents of female autonomy and independence; it provided the feminist cheerleaders of the Western World from the 1960s onwards. Women's workforce participation is very high and their prospects for advancement good, reinforced by law as well as informal pressure.

Although American culture is diverse, companionate marriages are favoured and New Men approved. Cohabitation is common, though less so than in Scandinavia. In a low-tax environment, private arrangements for childcare, although time consuming and

often inconvenient, can be more widely afforded, and illegal immigration provides sources of domestic help for the better paid. Less conventionally, it may be mistaken to ignore the extent to which welfare does help child-care (Folbre 2001). However the US shares with the UK a pathological side of the ‘Second Demographic Transition’ in having undesirably high levels of teenage childbearing: 45 and 27 per 1000 teenagers respectively in 2001. Were that to fall to average European levels, overall US TFR would be about 1.83. Furthermore, it has been claimed that the US fertility advantage compared with Europe, and the differentials between racial and ethnic groups, are substantially accounted for by a high level of unplanned and unwanted pregnancies, equivalent to about 0.7 of a child (Table 3). By contrast, in Italy it is estimated from FFS data that unplanned births declined from 0.57 per woman among the 1946-50 birth cohorts of children to 0.28 among children born in 1991 – 1995, despite Italian preferences for obsolete methods of family planning (Castiglioni et al. 2001). The total unintended fertility rate in the US in 1994 (average number of unintended births per women) were as follows:

Table 3	Total unintended fertility rate of which :	(a) total mistimed fertility rate	(b) total unwanted fertility rate
White non-Hispanic	0.50	0.38	0.13
Black non-Hispanic	1.19	0.69	0.51
Hispanic	0.96	0.56	0.40

Source: Henshaw, in Frejka and Kingcade 2003 table 28.

It should be noted that this is much higher than some previous estimates; for example that only 7% of US births in 1978-82 were unwanted, plus another 22% mistimed (Menken 1985) which seems very low by any standards. These high rates are claimed to follow from the deficient family planning system and limited sex education in the US, compounded by a low level of functional literacy among the young and least educated (Frejka and Kingcade 2003). As none of the underlying factors is expected to change fast, higher US fertility is expected to persist. An official campaign during the 1990s to reduce the very high level of teenage births appears to have successfully reduced the rate by about 20% without making any discernible impact on overall fertility.

Can governments influence the birth rate?

Neither ideational nor conventional economic models of fertility based on earned income can explain adequately the patterns, trends and differentials of birth rates. On the other hand, people in developed countries can make few decisions without encountering fiscal or other incentives or disincentives for their actions which attract subsidies or taxes, direct and indirect, through housing, education and health provisions, quite apart from policies focused on the family. In Europe, governments spend between 40% and 55% of annual national income. Effects on the rational choices of individual citizens are inevitable, including those related to family formation and reproduction.

Welfare support links ideational and conventional economic models, being a product of the former though public opinion and politics, and having its effects, if any, by ameliorating the time and money budgets of the household. These ‘institutional’ factors; various fiscal and workforce measures, and in some countries, family welfare policies, may have permitted the better realisation of desired family size through a combination of direct and indirect payments, more flexible working arrangements and child care facilities aimed, at least ostensibly, at family and women’s welfare rather than demographic targets. Others may hamper family formation. Because of these multiple intended and unintended (potential) effects, it has been difficult to come to clear conclusions on the question whether government action does, or does not, eventually influence the birth rate.

Family welfare measures usually described as ‘family policy’ are more or less universal although to a very varied degree. Whatever their ostensible purpose, in terms of actual provisions there is little but the rhetoric to distinguish some of them from ‘pronatalist ‘ policies insofar as they are designed to make it easier for women (and families as a whole) realise their desires for a family without falling into poverty and to ease the apparently conflicting demands of child care and workforce participation. More specifically, most are not intended to increase demand for children, but to make it easier to satisfy it.

The bottom line of the demographic assumptions relating to family policy – as opposed to its pure welfare aims – is that most women want to have at least two children and will attempt to have such a family size. This is supported by most of the available evidence from pan-European Surveys such as Eurobarometer (Eurostat 1991) and the European and World Values Surveys (Table 4), the Family and Fertility Survey and national surveys such as the British General Household surveys. Despite

Table 4	Ideal number of children (mean)			
	World Values Survey			Eurobarometer
	1981	1990	1995/6/7 / 8	1989
France	2.90	2.62		2.13
Britain	2.71	2.50	3.68	2.14
W Germany	3.14	2.25	3.08	1.97
Italy	2.59	2.44		2.20
Netherlands	3.19	2.63		2.23
Denmark	3.39	2.56		2.13
Belgium	3.33	2.48		2.01
Spain	3.37	2.53	2.84	1.94
Irish Republic	4.39	3.52		2.79
USA	2.66	2.74	2.61	
Canada	2.77	2.79		
Japan	2.68	2.75	2.63	

Sources: World Values Survey

<http://www.worldvaluessurvey.org/services/index.html>

Eurobarometer 32 the Family and the Desire for Children, Graph 1.

http://europa.eu.int/comm/public_opinion/archives/ebs/ebs_048_de.pdf

note: sample size about 1000 in each case.

the well-known difficulty of interpreting the answers to such questions, replies have been relatively consistent over the three decades or so over which such surveys have been held. That being the case, it has been assumed that if family policies can look after the interests of women, incidentally helping them to have the number of children that they want or to have them earlier, then population will look after itself. However, there are some recent suggestions that desired family size in some European countries has started to slip below the average of two. If that continues some re-thinking will need to be done (Lutz et al. 2003). Underlying desire for children is taken to be axiomatic in the economic rational-choice theories of Becker and others. At equilibrium, families with higher income should have more children, as they have more of everything else. This seemed to be contradicted by the negative association of status and education with family size which emerged in the demographic transition. But even by the mid 20th century the general relationship between family status and fertility, measured by men's rather than women's income and education, was no longer negative and linear (Ni Bhrolchain 1993b) but had become more U – shaped. Since the 1950s higher-income families no longer had the lowest fertility. Now, women of higher occupational status (in their own right) and women with higher education, while more likely to end up childless, may also end up with larger than average families if they have any children at all. The evidence is ambiguous, however, both in Scandinavia and in the US (Kravdal 2002, Retherford and Luther 1996, Martin 2000). In Britain, better-educated women have the smallest income loss though childbearing, even for fourth births, although they are also most likely to avoid or postpone childbearing (Joshi 2002). There seem to be two opposing effects, higher qualification tending to promote further childbearing while also delaying it, moderating its positive effect (Rendall and Smallwood 2003). This pattern does not point to the extinction of the family.

Do family policies encourage families?

Family policies and their recent development have been admirably reviewed by Gauthier (2003) for this meeting. There is no need to repeat her findings but we might ask again: what effect do they have on fertility? A glance at the comprehensive data reported by Gauthier and by McDonald (2002) does not show an overwhelmingly obvious correlation with high contemporary birth rates. It is true that Finland and France appear in the upper distribution of all three kinds of benefits and their TFR is among the highest of the European countries, that of France having recently increased to 1.9. At the other extreme, Spain, Greece and Italy with their very low TFR feature prominently in the lowest categories of family support, although Spain and Portugal do well on maternity leave. In such countries, lacking cash transfers or tax reliefs, the arrival of successive children reduces living standards of families substantially. The UK as usual has a somewhat anomalous position: cash benefits for children as a percent of GDP are little below those of France or Sweden, while levels of public childcare for young children and of maternity leave are among the lowest in Europe. Its relatively high fertility has consequently been a source of surprise and even of irritation to overseas observers; its recent decline may be taking it down to a more appropriate international position given the level of family support.

Systematic quantitative comparisons are made difficult by the variety of effects, direct and indirect, intended and unintended, of many government policies even within one country. It is difficult to take account of them all. Gauthier concludes 'there is no way of measuring the degree of child- and family- friendliness in countries' (page 14). Pre-

war pronatalist policies, widespread in Europe, developed before high levels of female workforce participation, were in general too meagre to be effective (Glass 1967). Policies in the post-war communist regimes of Eastern Europe copied some of the features of the pre-war Nazi programme. Measures included family allowances, free childcare in crèches, preferential access to state housing for married couples with children. In the absence of access to modern contraception until recently, reliance on abortion permitted some element of state control over fertility, however unwanted that fertility might be. Fertility could increase in response to policy change at least in the short run, for example in East Germany in the 1970s, mostly a result of temporary shifts in the tempo of fertility rather than enduring increases in the quantum of completed family size (e.g. Stloukal 1998). However, fertility rates in Eastern Europe showed little tendency to decline after around 1970 and TFR remained around 2 until the end of Communism, that is about 0.5 above the average level in Western Europe.

The weakening of these policies after the end of communism was followed by sharp reductions in the birth-rate, which remains universally low today (Macura 1999, 2000). That fall is hardly be surprising in view of the parallel sharp decline in national income and the novel rise of unemployment and general economic and political uncertainty. Economic recovery in Central Europe in the late 1990s, however, has not yet brought any recovery of the TFR. The family-policy history of these countries is not a good guide. Any 'success' was gained in an unfree environment, without access to modern contraception and without free markets – or much choice - in housing or labour outside that provided by the state, or even, for most, the option of emigration. It is inconceivable that democratic political systems would wish to copy them.

In Western Europe, some comparative analyses have showed rather weak net results of family policy on fertility (Gauthier 1996, Blanchet and Ekert-Jaffe 1994); for example that an increase in cash transfers would increase the TFR by only 0.02 children (Gauthier and Hatzius 1997). Other results are more positive, finding a clear positive statistical association between the child benefit package and fertility levels (Finch and Bradshaw 2003). However these careful studies have been unable to include all relevant factors such as housing. A common message is that workforce policies and those affecting gender equity are probably more important than others and any analysis – or policy - which omits them will not yield results. Those Italian municipalities that throw cash at women hoping to increase the output of babies will do so in vain.

At the national level, an early analysis of French policy concluded that it had elevated the TFR by up to 0.3; that is taking it from an expected 1.5 to the actual 1.8 of the early 1980s (Calot and Chesnais 1983). A similar but more modest result (an increase of 0.2) was obtained by Ekert (1986). Analysis of the extensive Swedish family support system have suggested a close connection between its cash benefits, tax breaks and especially its paid maternity leave provisions, and the level of period fertility. Comparison with the situation in Hungary underlines the importance of gender roles. In Sweden, effects of policies are quite similar for men and women, unlike in Hungary where more traditional gender roles are preserved. Hence 'public policies that aim to reduce the conflict between employment and parenthood do facilitate the combination of these competing roles for individuals, especially women' (Olah 1998 p. 24) underlined by the higher average fertility and progression to second birth in Sweden. Policy effects in Sweden are modulated by economic trends, which

are positively related to fertility rates (Santow and Bracher 2000). Malthus lives, it seems.

Swedish comprehensive system of family benefits, child care and work practices (especially the easy availability of part-time work) make continuous working life a natural choice for young women, and fathers are more involved in childrearing. The less flexible work arrangements in France pressed French women to choose between working life and family, putting a double work load on Frenchwomen who worked. Partly thanks to day-care arrangements, career-minded Swedish women are more likely to progress to a third child than in France (Corman 2000) although for all women the proportions are similar. Third-birth rates are crucial to the achievement of reasonable total fertility rates, especially in populations where childlessness is quite common (14% among the 1960 cohort of women in both countries). Since the mid-1990s, however, the Swedish economy has fallen on evil times, with (for Sweden) unprecedented levels of unemployment that have hit younger people hard and reined back the generous but expensive welfare system. Because welfare is so strongly linked to work, unemployment depresses family formation severely. The Swedish fertility rate is now more modest although recovering, while that of France has increased (1.9). However, similar analyses of the effects of policy on fertility in Norway, where total fertility rates float on a sea of oil money, come to similar positive conclusions (Rønsen 2001) in a country where the TFR remained high (about 1.85) until very recently.

Policies in Sweden and Norway have been described as ‘state feminism’. More than elsewhere, men and women share childcare. Policies to promote gender equity no doubt help, but those policies could not be pursued in a democracy without substantial pre-existing support. This contrasts with countries such as Austria ‘which has hesitated to put its money on gender equity and ...has retained much of the old spirit of family-role specialisation’ (Hoem et al 1999 p 22) and where third births have declined markedly among working women. In this respect, Austria seems to resemble other German-speaking countries – Germany and Switzerland – also not famous for gender equity and where female workforce-participation and birth-rates are both low. The emergence of a positive relationship between birth-rates and female workforce participation rates may reflect the success of family-friendly employment policy in Northern Europe in moderating the opportunity costs of childbearing, and the dire fertility consequences of persistent gender inequity in the South and in Japan (McDonald 2002).

Despite the uncertainty, it remains true that some developed countries obviously provide a more ‘family-friendly’ environment than do others. Three roads, it was claimed in a recent analysis, can lead to comparatively high fertility rates:

- (1) high wages, ample childcare, and well-developed maternity leave
- (2) high gender equity and well developed parental leave
- (3) high male wage, high percentage of female part-time employment but with less parental leave.

Socio-economic systems and childcare support need ‘institutional complementarity’ (Fukuda 2003, p. 23); a good fit promotes fertility. If bad, public policies will have little effect, as they have so far in Japan.

Pronatalist measures

The governments of most European countries and of all the Neo-Europes avoid explicit pronatalist motivation. However, as low fertility goes on and on and population ageing starts to loom large on government agenda, the merits of a demographically-aware family welfare policy become more apparent. Accordingly some national and local authorities, notably in birth-starved regions of Italy, have revived specifically pro-natalist measures usually involving cash payments, most recently to mothers of second children in the Naples area. However, modern views on women's empowerment do not take kindly to any suggestion of instruction concerning their reproductive 'duty', and no concept more clearly contrary to the spirit of the second demographic transition could be imagined. However pronatalist policies, at least of a mild kind, were and are by no means restricted to autocracies; they were the norm in pre-war Western Europe. Pronatalist elements of policy (parity-specific benefits), of a non-oppressive kind, are maintained within family welfare measures are maintained at a subdued level in France and one or two other European democracies, and are explicit in Japan and Singapore.

In 2001 the governments of 24 out of 48 developed countries reported that their fertility was 'too low' (compared with 7 out of 34 in 1976). Most expressed worries about population ageing, not about declines in the working age or overall population size. But only 14 had policies intended to elevate the birth rate (United Nations 2002). Eleven of these were former communist countries (where TFR has fallen to between 1.2 and 1.5), the twelfth was Singapore, where ingenious but persistently fruitless efforts in this direction have become famous. In Western Europe only the governments of Austria and of Luxemburg had policies to raise fertility. None of the other low-fertility countries of Western Europe admitted to such policies even though almost all declared their national fertility rate to be too low.

These responses cannot be taken entirely at face value. For example the declared intention of Canada's immigration policy is to increase the population by 1% per year, but the return claims a population policy of 'no intervention'. Even the Italian response even claims only 'mild' concern about ageing and none about the decline in the workforce, despite widely publicised worries on these matters (e.g. Golini et al. 2000), the prevalence of provincial policy initiatives, and the assertion by some Italian authorities that mass immigration is needed to rectify population ageing.

Genetics, evolution and biology

In all this discussion, some basic desire for children is assumed. Where does it come from? Why is fertility not tending to zero, given that the logic of costs, negative utility, increasing individualism and the like all point downwards. In the 1990s, this fundamental problem of why modern educated individuals have any children at all, and whether there is any reason why the average should be two, has moved closer to centre stage. It is being addressed for the first time from genetic and evolutionary viewpoints as well as more conventional ones (Friedman et al., 1994, Hobcraft and Kiernan 1995; Joshi and David 1996, Hobcraft 2003). Economic theories must assume an axiomatic desire for children and child services. Evolutionary theory purports to provide an enduring reason for that desire, not related to any 'material utility' of children, much questioned since the beginning of the decade and clearly negative in modern settings. On the new view, fertility in the human species, as in all others, is maintained ultimately for the benefit of genes, not of people (Coleman

1999). This is achieved through basic needs of biological origin not just for sexual gratification but, more important, for the protection and nurturing of children. This is not the place to discuss these ideas but to note their recent salience (Udry 1996, Foster 2000, Morgan and King 2001) and the reaction that they have provoked in some circles. If demography has had an ideology it has tended to be sociological, traditionally hostile to attempts from any non-social discipline to interpret 'social facts'. Accordingly this new thinking has provoked strong responses (e.g. the exchanges in *European Journal of Population* 17, 1 (2001); and Vetta and Courgeau (2003). We are still a long way from establishing strictly defined connections between basic human behaviour, gene differences and neuronal pathways, if indeed it can ever be done.

Population Ageing and Population Decline

Persistent low fertility, together with increases in survival, leads naturally to older population structures. Sooner or later it will go hand in hand with population decline. Natural decrease has already arrived in some western countries; in Germany, Italy and Greece only net immigration prevents actual population decline. Within the next thirty years all European countries are expected to follow Italy into 'natural decline', where deaths exceed births, some very gradually, others more rapidly depending primarily on past and future levels of fertility (Lutz et al 2003). That will go hand in hand with a more aged population. Population decline, as opposed to natural decrease, will be deferred until later, because net immigration is expected to continue. Alone in the UN ECE area, the population of the United States is not expected to decline at all but to continue to increase, indeed at an impressive rate. The populations of Europe as a whole, and the United States, are thus on divergent paths. This disparity in growth between the US and Europe has excited financial journalists who see much economic, and geopolitical, significance in the future demographic disparities between even an expanded EU, and a United States continuing to grow to 500 million and beyond. Both, however, face similar pressures from neighbours.

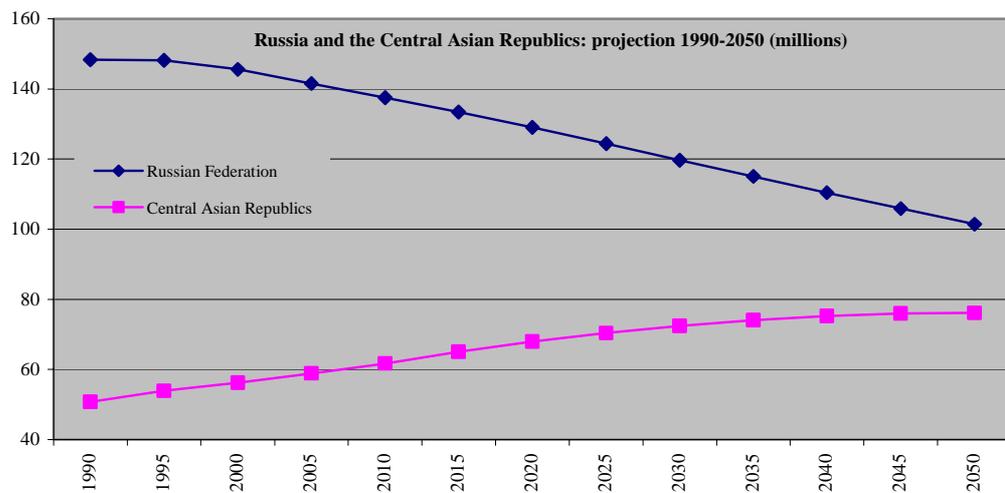
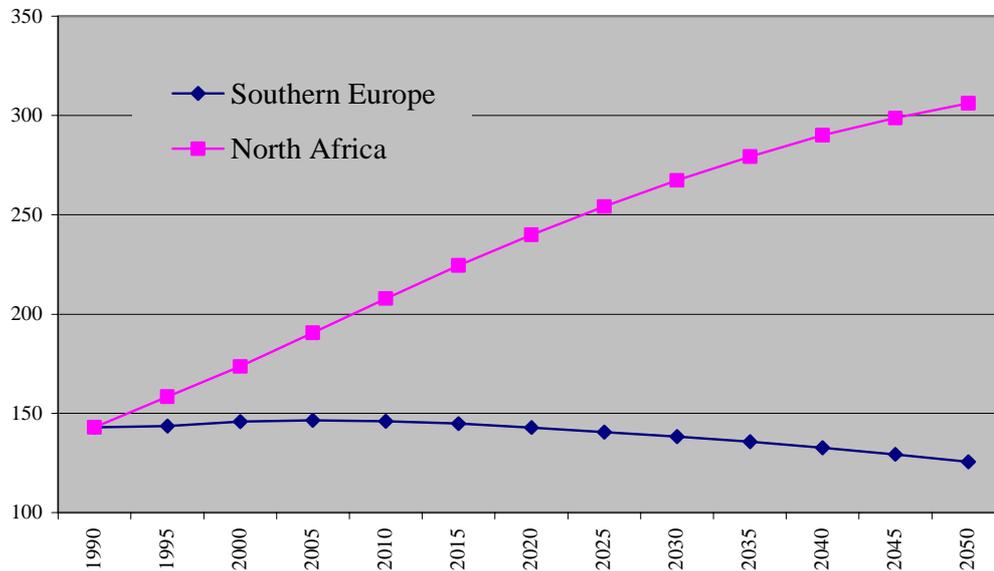
Demographic marginalisation

The populations of Europe's Muslim neighbours in North Africa and Turkey, minor players economically and demographically in the early 20th century, have now accelerated past the European total. The Mediterranean now comprises the greatest demographic, economic and cultural gulf in the world (Chesnais 1995). The southern Mediterranean countries also continue to send large numbers of their citizens to Europe. Behind them the vast demographic potential of sub-Saharan Africa, its growth only moderately checked by AIDS, continues the population increase propelled by huge demographic inertia and very late transition. Of the 14 countries not yet even started the demographic transition, 12 are in Africa and 1 (Yemen) in the Middle East. Their potential is impressive: the population of Yemen is projected to exceed that of the Russian Federation shortly after 2050 (Demeny 2003).

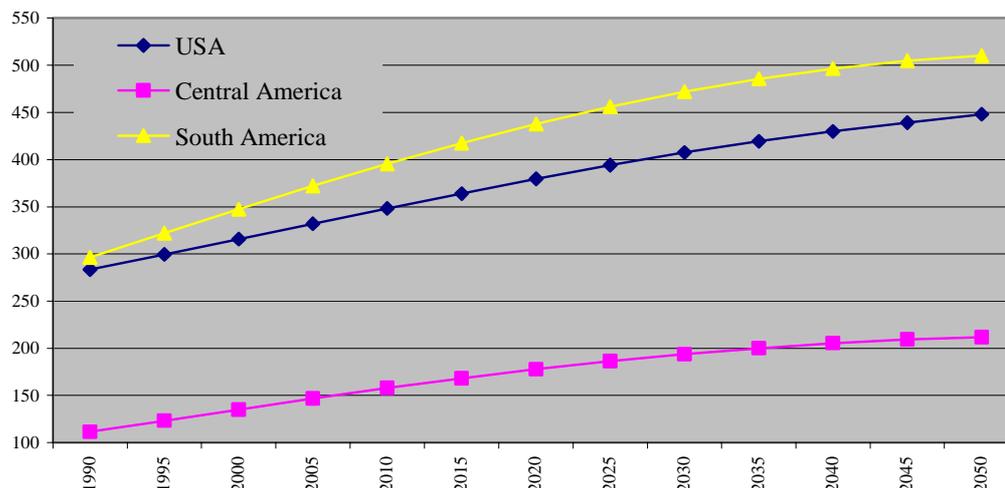
At the other end of the UN ECE area, the US looks across a parallel if less striking demographic and economic gulf to Mexico and Latin America. There the disparity is less marked: Latin America has made more economic progress and fertility is falling faster. Furthermore, US population is growing much faster than that of Europe, though its more youthful age-structure, its higher fertility and its high levels of immigration - due substantially to the transfer of large parts of the Latin American population, together with their higher birth rates, to the USA.

Figure 13 Major UN ECE regions and their neighbours – demographic contrasts across the Mediterranean, the steppes of Central Asia and the Rio Grande.

Southern Europe and North Africa: Projections 1990 - 2050 (millions)



USA, Central and South America. Projections 1990 - 2050 (millions)



Finally in the Far East of the region an old demographic gulf, much discussed in the Cold War period, continues un-noticed. Russia's Muslim Asiatic hinterland, separated not by river or sea but by steppe, a nagging security problem in Soviet times, continues to gain ground demographically, despite chaos and civil war, as the Russian population falls. Projections to 2050, however, do not suggest that these republics will approach the Russian total by that year. The legacy of communism has obviously changed radically the status even of revived religion, Russian hegemony continues and despite much return migration substantial Russian nationality population remains in Central Asia (Figure 13).

Population ageing

The population of the UN ECE, like that of the whole world is getting older and all its countries, sooner or later, will have to face and manage the consequences. That is an inevitable consequence of low vital rates. In the last century, fertility decline has been the main engine behind population ageing. Fertility, now constant or even rising, will eventually make no further contribution to population ageing. Instead, continued mortality improvements will be the dominant or only factor and has already become so in some Western countries (Calot and Sardon 1999). At an average family size of 1.8, about the level of the higher fertility European countries such as France and Norway, the percentage aged 65 and over would stabilize at about 23% at current mortality rates. At 1.6, about the European average, that percentage would rise to about 28%. With persistent really low fertility, like that seen in the Southern and Eastern European countries, the percentage would rise to well over 30%. In the absence of migration, stable populations with these rates would have rates of population decline varying from 0.25% per year to 0.75% per year and potential support ratios from 2.0 to 1.1 (Table 5). Differences in fertility that may appear small will generate, over decades, highly divergent age-structures. Of course we are not dealing, yet, with stable populations, which will take some decades to emerge. For the

Table 5 Stable populations with given levels of period fertility

	TFR 1.55	TFR 1.78	TFR 2.07
Rate of Pop change (per 1000)	- 10.0	- 5.0	0.0
Mean age	46.8	43.9	40.9
% pop under 15 years	13.0	15.7	18.7
% pop aged 15-64	59.4	60.7	61.3
% pop aged 65 and over	27.6	23.7	20.1
Overall dependency ratio	68.3	64.9	63.2
Aged dependency ratio	46.5	39.0	32.7
Potential Support Ratio	2.2	2.6	3.1

Note: Expectation of life at birth in all cases 80.0 years for females, 76.0 for males.
Source: calculated from Coale and Demeny 1983, pp 79, 129.

time being, the age-structure in many Western populations is still favourable to positive natural increase, if only marginally, thanks to the inheritance from the earlier 20th century of large age-groups of reproductive age, particularly from the baby boom period. But that demographic bonus is fast running out. Most western countries are on the cusp of population ageing and sooner or later will acquire a negative momentum generating natural decline (Lutz et al. 2003).

If fertility remains stable or increases, mortality decline, for as long as it lasts, will eventually become the only continuing agent of population ageing in the future. The reverse is true in the East. There, in the absence of a 1960s baby boom, momentum from the age-structure is in any case more modest. Very low birth rates combined, in many countries of the region, with persistently high death rates conspire together to push most populations into natural decline already.

The current position is made to seem particularly unfavourable, because we are coming to the end of a short and transient period of unusually benign age-structure. During the latter half of the 20th century, the more developed countries could enjoy the benefits of low dependency from fewer children together with a relatively low proportion of pensioners inherited from earlier times. That demographic bonus is now disappearing and will not return; it is now being enjoyed - for a while - by third world countries. The older population can be projected with reasonable confidence; all have been born. The standard picture of projected population ageing is very well known and needs little elaboration here. Thanks to persistent low fertility over many years, the contrasting levels and paces of ageing, and their international rank order have acquired a distinct pattern since 1990 (Table 6).

Southern European countries now have the most rapidly ageing populations, having overtaken populations such as the UK and Sweden in the 1990s. The CEE countries are only kept temporarily out of the same league by their more recent fertility decline and by their high death rates. Today the potential support ratio (PSR; the number of people of potential working age for every person of retired dependent age, stands at about four in most European countries if calculated on the conventional age-limits of fifteen to sixty four and 65 and over, and over 5 in the Russian Federation and the US. If calculated on the more realistic basis of ages 20 to 59, and 60 and over, the figure is closer to 3 (3.1 in EU15 in 2001). That is not the real ratio of actual workers or taxpayers to retired dependents, which is much less (about 2.5 to 1). Only about 64% of Europeans aged 15-64 are actually at work. All Western countries begin with a PSR of around about four calculated on the former basis but will decline by 2050 to rather different levels: over two in the case of France and the UK, well under two in the case of Germany, and in the case of Italy and Spain, less than one and a half (Figure 20). These results imply quite big differences in future problems for the economy, productivity, dependency, and other indicators.

This future diversity means that it makes little sense to propose common 'European' solutions. Despite the claims of the European Commission (2001) there is no 'European' problem, rather a wide variety of national ones that

require their own individual policy responses. The low fertility countries of Southern Europe, with their low fertility, ‘familist’ traditions, rejection of ‘second demographic transition’ behaviour, low female workforce participation rate, high unemployment and rigid labour regulations, resemble somewhat the low-fertility societies of Asia. In demographic terms, the countries of NW Europe, with their higher birth rates, high levels of cohabitation and births outside marriage, weak kinship structures and high female workforce participation resemble much more the populations of the English-speaking world overseas, although they differ radically from the US (less from Canada) in terms of welfare provision and taxation. These contrasts are well illustrated by projections of the future populations of potential workforce entry age (20-24). In NW Europe the expectation is of relative constancy (including an element of migration, of course), while in others steep decline is expected (Figure 14).

Table 6 Evolution of the age-structure 2000 - 2050, selected countries

	France		Germany		Italy		Netherlands		Spain	
	65+ %	PSR	65+ %	PSR	65+ %	PSR	65+ %	PSR	65+ %	PSR
2000	16.0	4.08	16.4	4.15	18.1	3.73	13.6	5.01	17.0	4.01
2010	16.6	3.95	20.2	3.31	20.6	3.22	15.3	4.49	18.5	3.69
2020	20.5	3.05	22.5	2.91	23.9	2.71	19.8	3.33	21.3	3.14
2030	23.8	2.52	27.7	2.16	28.6	2.11	24.2	2.52	26.5	2.37
2040	26.2	2.21	30.9	1.84	34.5	1.57	27.1	2.14	33.3	1.68
2050	26.7	2.15	31.0	1.83	35.9	1.47	26.5	2.22	37.6	1.36

indicator values in 2050

TFR	1.9	1.61	1.61	1.81	1.64
e0m	80.6	80.7	79.5	79.6	79.4
e0f	87.3	86.2	85.6	84.9	85.9
net migration	40	180	60	30	30

	UK		Norway		Hungary		Russia		USA	
	65+ %	PSR	65+ %	PSR	65+ %	PSR	65+ %	PSR	65+ %	PSR
2000	15.8	4.13	15.4	4.21	14.6	4.69	12.5	5.56	12.3	5.35
2010	17.0	3.94	16.0	4.18	16.0	4.38	13.3	5.50	12.8	5.21
2020	20.2	3.21	20.0	3.23	19.7	3.41	16.7	4.17	15.9	4.03
2030	24.3	2.48	23.5	2.56	21.5	3.02	21.8	3.00	19.2	3.20
2040	27.2	2.13	26.5	2.16	24.8	2.47	23.5	2.69	19.8	3.12
2050	27.3	2.12	26.2	2.21	28.8	1.99	27.0	2.17	20.0	3.11

indicator values in 2050

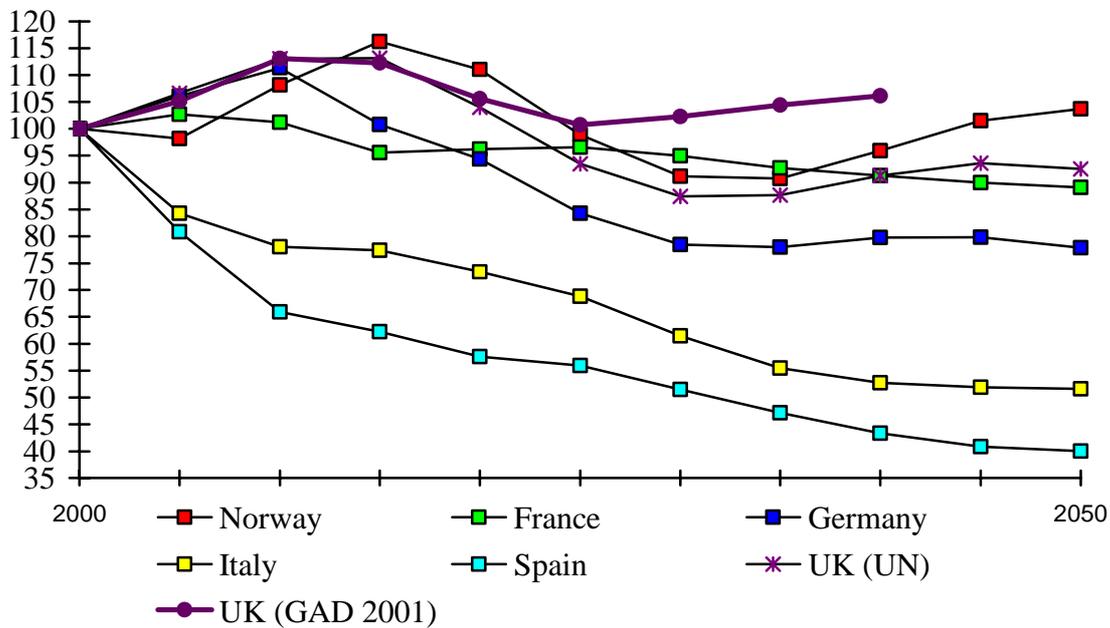
TFR	1.91	2.07	1.85	1.85	1.85
e0m	80.6	80.8	76.0	70.9	79.2
e0f	85.6	86.7	82.4	77.4	84.1
net migration	95	10	1	50	1100

Source: UN World Population Prospects 2000, 2002 Medium Variant

Population age-structure is not the only factor that determines the impact of population ageing on society and economy. Those effects are modulated by levels of workforce participation, by labour productivity, by the structure of pension systems and their sustainability or cumulated indebtedness. These differ considerably between countries and differences are likely to persist into

the future. Impact of demographic and non-demographic factors has been brought together in an index of the impact of ageing which considerably alters Figure 14

Population aged 20-24, selected European countries 2000 - 2050 (2000 = 100). Source: United Nations.



our picture of the most vulnerable populations in the future Many of the assumptions about the future values of relevant variables may be questioned, and the UN projections used are not ideal. Nonetheless such exercises may put the spotlight more accurately on the danger areas.

Figure 15 Index of weighted population ageing

Ageing Vulnerability Index 2003						
	Overall Index		Public Burden	Fiscal Room	Benefit Dependence	Elder Affluence
	Rank	Score	Rank	Rank	Rank	Rank
Australia	1	-1	2	2	4	6
UK	2	7	1	1	6	11
US	3	18	3	4	3	1
Canada	4	42	6	6	5	2
Sweden	5	48	4	3	8	10
Japan	6	50	9	9	1	3
Germany	7	52	7	5	11	5
Netherlands	8	62	8	7	9	4
Belgium	9	63	5	8	10	9
France	10	81	10	10	12	8
Italy	11	84	11	11	2	12
Spain	12	93	12	12	7	7
		weight	1/3	1/3	1/6	1/6

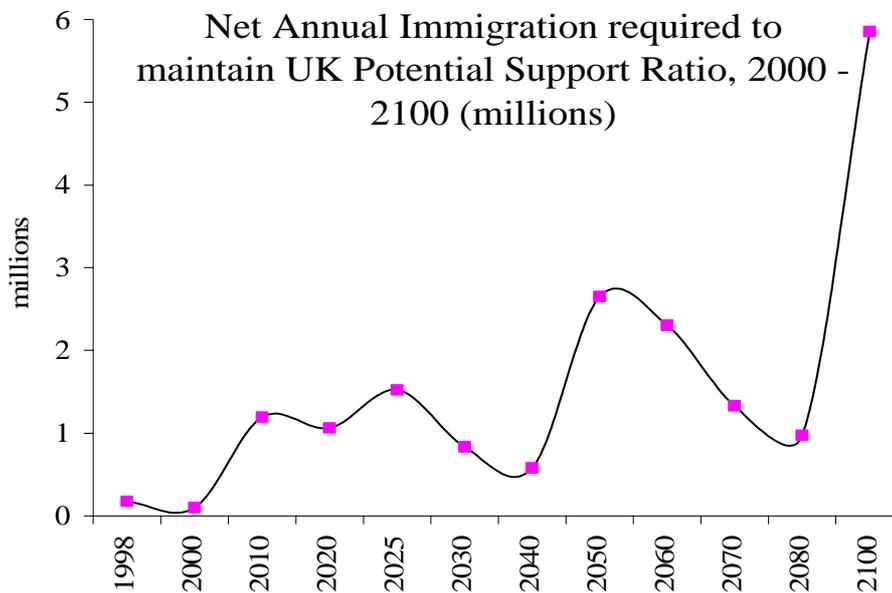
Source: Jackson and Howe 2003, Figure 18

What can we do about it?

There is no 'solution' to population ageing short of a return to much higher rates of population growth or mass age-specific euthanasia. Today's age-structure is non-sustainable. Immigration cannot solve problems of population ageing except at rates of immigration so high that they would generate economically and environmentally unsustainable population growth rates and permanently and radically change the cultural and ethnic composition of the host population (Coleman 2000). Figure 22 shows the population size consequent on the migration needed to preserve the current potential support ratio in the UK up to 2100. Today's population of 60 million would have doubled to 120 million by 2050 because the UK would be importing 1.2 million persons per year. By 2100, up to five million new immigrants would be needed every year, and the population would have risen to 312 million, not much less than the present population of the whole EU.

The *reductio ad absurdum* of all this is what one might call the 'Korea syndrome': the level of immigration required in order to preserve the current potential support ratio in the Republic of Korea and its consequences for population growth. In order to preserve the present potential support ratio of Korea – 10: 1 – the population would need to increase to 6.2 billion people by the year 2050. Just by coincidence, this happens to be the entire population of the planet at the present time, so we would all have to go there.

Figure 16. Source: UK Government Actuary's Department



Of course immigration does have a favourable impact upon the age structure and can in theory maintain population size or workforce size, although to keep those constant would require an implausibly precise level of management: immigration has always been easier to start than to stop. The problem is that the effect is not very great and immigration is an inefficient way of achieving this end. Immigrants themselves age and then require more immigrants, as it were, to replace their number. Also, there is a

tendency for immigrant birth rates to converge to those of the host population although by no means a complete one.

Population ageing is not a consequence of a failure of migration: birth rates are a more effective way of changing age-structure, without population growth. But population ageing cannot be 'solved' by fertility either, although it is easier to moderate it by that route. Even if the birth rate rose up to replacement level, the potential support ratio would only increase to about 3. But that would imply no further population growth and eventually, an end to further population ageing given constant mortality. To keep the PSR at the current level of four, an average family size of about three and a half would be required, implying population growth of about 1.8% per year.

Managing population ageing

What matters, however, is not so much demographic abstractions such as the potential support ratio but rather whether the future costs of dependency are sustainable in the economic and social environment of the future. Workforce, retirement and pension reforms within the demographic system offer many flexible and promising ways of adapting to population ageing and preserving the viability of economic systems some of the measures are desirable in their own right. Together with improvements in productivity, such measures offer the prospect of a reasonably effective and affordable management of this burden as long as birth rates are not too low, even though they definitely cannot offer a 'solution' (Daykin 1999).

First we need to consider first the 'real' support ratios, that is the actual number of taxpayers in relation to aged dependant people. In making such calculations we need to take into account the future reduction of dependency arising from the decline of the youthful dependant population. Actual retirement ages today is already substantially below 'official' retirement age, about 58. Early retirement, late entry into the workforce and modest workforce participation rates already give actual support ratios of about 2.5 taxpayers per pensioner in the UK., and even fewer elsewhere, not the nominal 4.1 of the potential support ratio (Government Actuary's Dept 1999). This lower ratio is being managed today without notable problems.

No one management factor can ameliorate the situation all by itself except with considerable discomfort. We therefore need to address simultaneously as many of these contributing factors as possible.

First, there is considerable scope for increasing the actual workforce within the existing boundaries of working age. European countries have very high levels of demographic reserves. In the EU, only 62% of the nominal 'working' population aged 15-64 is economically active. This is the lowest of any major industrial area in the world. In Spain and Italy, only just half the population aged 15-64 actually has a job (Table 6). Mobilising this spare capacity, in which existing foreign population is disproportionately over-represented already, would address many social problems as well as helping to meet workforce needs (see Punch 2000). Because of low current employment rates, the potential workforce in Germany is sufficient to meet its likely needs until 2020 (Fuchs 1995). An increase of EU workforce participation rates to the levels already achieved in Denmark, for example, would add 32 million

people to the EU workforce (Figure 17). Similarly, a return to the levels actually achieved among men in the 1960s, would go a long way to meet adverse future ageing changes.

Combining Eurostat projections of populations and of modest increases in workforce participation, it can be shown that the actual workforce in all EU countries will continue to increase for the time being and in all cases except that of Italy will not decline below current level before 2020 (Feld 2000). However, improvements in workforce participation rates cannot have further enhancing effect once they have reached their maximum level, beyond say 2020. Labour market reform is also needed to permit a gradual, not an abrupt, transition from work to retirement and the moderation of the tax penalties for working after pensionable age, and less pressure at work for older workers.

The most potentially effective measures relate to later retirement age, which improves both sides of the dependency equation. While formal retirement age is 65 in many EU states, actual retirement age is about 58 or 59. Preservation of today's actual support ratio would require actual retirement age to rise by between 5 and 6 years, to 66. On that basis, managing the additional costs of

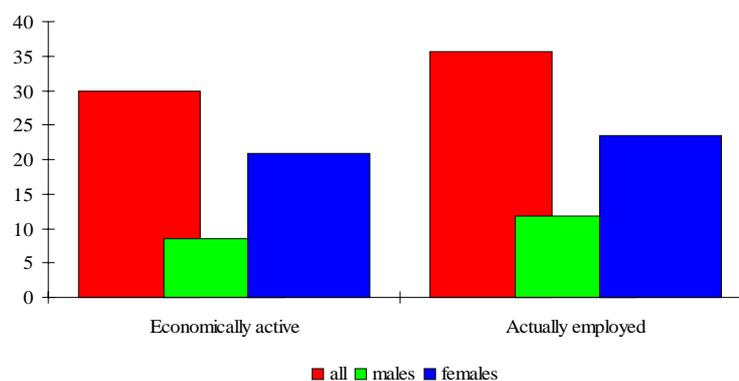
Table 7.

Employment and Unemployment, selected countries 2001, ages 15-64				
	Employment rate			Unemployment rate
	both sexes	males	females	both sexes
Denmark	75.9	80.2	71.4	4.2
France	62.7	76.0	55.7	8.6
Germany	65.7	72.6	58.7	7.8
Netherlands	74.1	82.7	65.3	2.1
Spain	57.5	70.9	42.7	10.4
Switzerland	79.1	87.6	70.6	2.5
UK	71.6	78.2	64.9	4.7

Source: Eurostat Labour Force Survey 2001 t 13, t 53

Figure 17.

Potential increase in EU 15 workforce, 1999, given Danish participation rates (millions)



Source: Calculations based on Eurostat data.

elderly dependency simply requires people to stop work when they are 'expected' to. If 65 is taken to be the actual current retirement age, the current support ratio would be fully preserved with an increase of retirement age to between 72 and 76, depending on the population. Full preservation of the support ratio is, however, neither necessary nor, probably, possible. Neither would it do to minimize the difficulties of substantial increases in average retirement age, especially for manual workers, when popular pressure is to reduce it or to take early retirement. But s expectation of life after 65 continues to increase, working life must keep pace with it. Fortunately, recent findings suggest that most additional years of life are active years. In the longer run, it will not be possible for populations to live longer without working longer.

Enhanced productivity growth , highly desirable in their own right, would rectify much of the threatened economic shortfall and would in any case e a natural economic response to a relative shortage of workers. The European Commission's Annual Review of the Demographic Situation in Europe in 1995 (European Commission 1996) noted that additional productivity growth required to meet the additional demands on the economy created from pensions would between 0.1% and 0.3% annually up to 2005, increasing to 0.5% per year by 2025. That apparently small increase is, in terms of productivity growth, substantial, and not easy to achieve. Economic diversion on this scale to pensions costs would, for example, reduce a real annual GDP growth rate from (say) 3% to 2.5%. Similar conclusions have been reached by other economists in the US (Lee et al 1988, Lee 2000).

All these measures together could restore the future position to about the current level in most European countries at least up to 2020, (UN ECE 1999).

However it would not do to minimize the political problems obstructing necessary reforms. In many European countries, workforce participation is constrained by poor support for (would-be) working women with families, by interminable degree courses (favoured in the 1980s to disguise youth unemployment), by pressure to keep and even expand early retirement. As most of the population has a vested interest in them, there is great reluctance to accept the revision of unsustainable generous pay-as-you-go unfunded pension schemes giving up to 80% of wages over a long retirement, which are commonplace in Europe. In the last two or three years general strikes in Italy, transport disruption in France, political turmoil in Germany provoked by the most modest proposed future reforms, all show how difficult it is going to be to wean Europe's workers off the state they have enjoyed during the fat years of the late 20th century.

Immigration and its discontents.

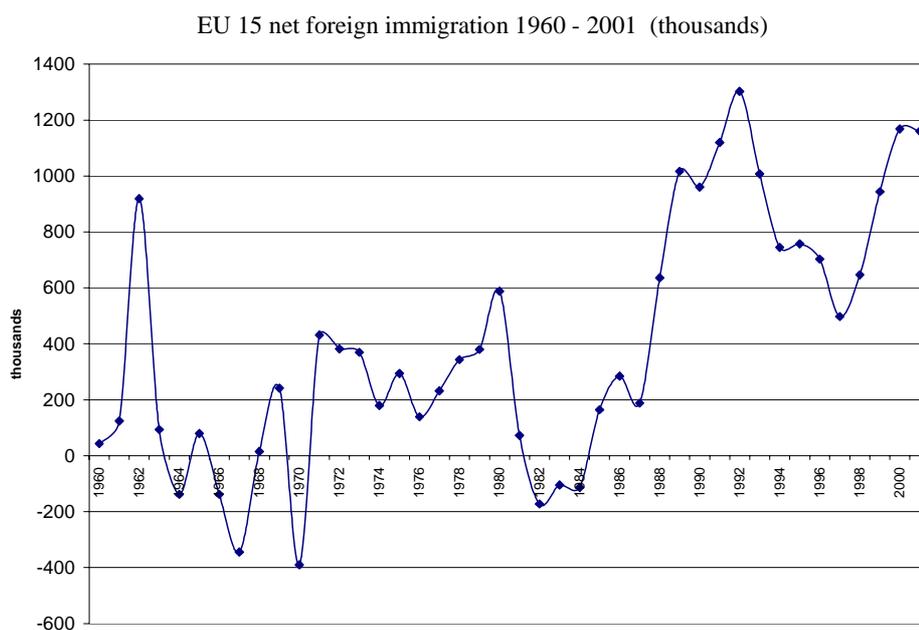
Migration – the new engine of demographic and social change

Migration is now in the front line of demographic analysis. Twenty years ago migration flows into Europe were ebbing. All that has changed. In 1992 international

migration to Europe reached an all-time peak, estimated at an inflow of 2.7 million from all sources (Widgren 1994) a precarious estimate including illegal immigration , an estimate which has not, however, yet been dethroned. Net inflow to the European Union as estimated by Eurostat only briefly fell below 0.5 million in the middle 1990s and since then has risen to nearer one million. This net figure is similar to the gross inflows to the United States, although into a larger population. However, migration can go down as well as up (Figure 18) and some national trends underline this - in 1997 and 1998 net international migration to Germany became negative, as Polish worker recruitment fell and many Yugoslavs granted temporary protection in 1992 returned home. The flows that make up this total, in and out, are in some cases quite separate and independent although most have tended to rise. Some flows have been inherited from the past; others are quite new.

The flows are too complex to describe in detail here. Excellent overviews are available in respect of the Council of Europe countries (Salt 2003) and for OECD member states (OECD 2003), together with two new global compendia: from the UN Population Division (2003) and from the International Organisation for Migration (2003). Comprehension of migration processes is muddled by the poor and incompatible statistics available (Salt et al 1993, Poulain 1996), by the uncertainties

Figure 18.



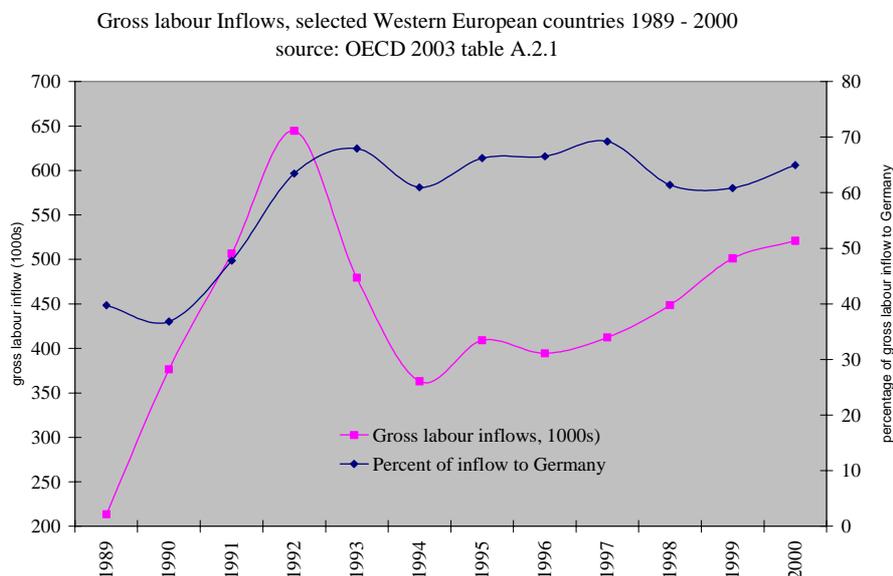
of migration theory and by the great difficulty of making projections on any rational basis (see Hilderink et al. 2001). Migration is powerfully affected by the economic and demographic situation in the sending countries, by labour demand in the host countries, by the political situation in each and the historical connections between them. The size of immigrant groups already in the host country and their propensity to perpetuate chain migration by arranged marriage and attracting and absorbing illegal or irregular immigrants is becoming more salient. Political effects on migration flows have tended to be ignored by economists preoccupied with their models (Hollifield 2000).

Labour migration

Labour migration is the focus of debate by economists and in the media. Most immigrants to Europe and the US are not, in fact, workers, but nonetheless labour flows promote and perpetuate subsequent flows of dependents and spouses. Since the later 1990s gross labour migration inflow to Europe, long-term and temporary, has increased despite the economic slowdown in the Euro zone (Salt and Clarke 2003). Totals of work-permit immigration from those countries which provide data rose from about 200,000 in 1989 to a peak of 650,000 following German re-unification. Then the inflow fell to 400,000 in 1995, rising again to over 500,000 by the end of the decade (Figure 19). These are all gross inflows; few data on net flows of labour are available. This is all movement from outside the EU; movement between EU countries does not require a permit. The reasons are mixed. The Information Technology sector needs labour because its rapid growth has outstripped the ability of domestic resources to train suitable personnel. On the other hand, skilled medical workers, especially nurses, need to be recruited overseas more as a reflection of poor working conditions arising, from under-funding over many years, creating a dependency on foreign workers. There the problem is not so much a shortage, as many trained nurses no longer work in the profession, but 'a shortage of nurses willing to work under the conditions being offered them' (OECD 2003 p 23).

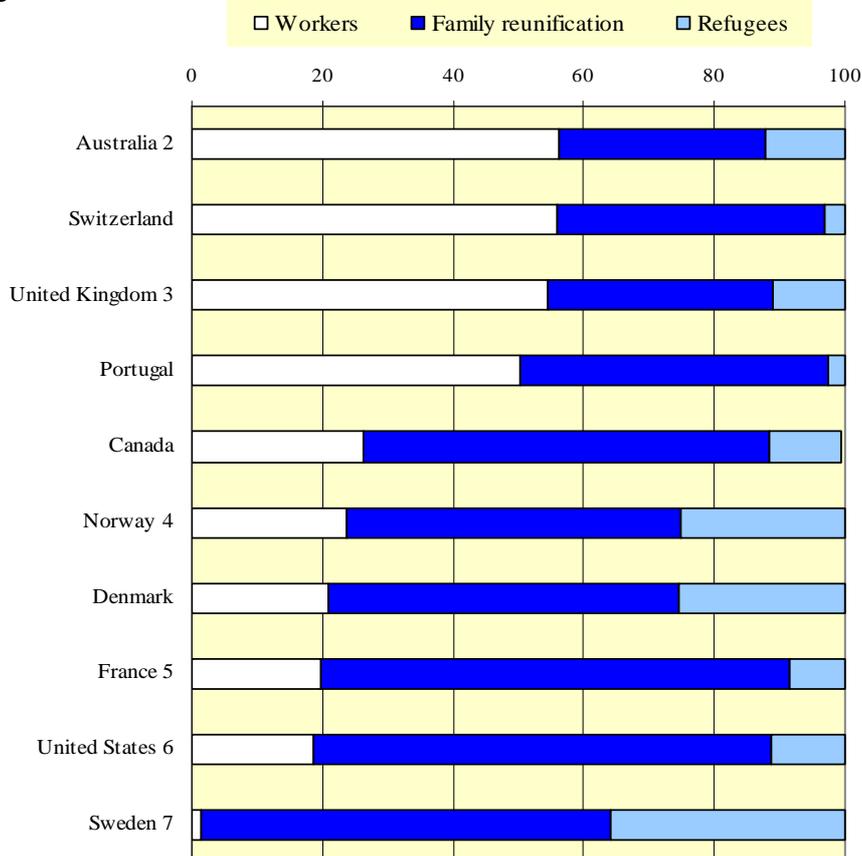
Believing that it might improve their competitive position, many European countries have changed their migration laws in the 1990s to favour the recruitment of skilled professionals overseas (OECD 2001). However the interest may be transient and the results disappointing: IT jobs were withdrawn for the official UK list of shortage occupations within 18 months despite official claims that 200,000 were needed. The German 'green card' for overseas IT specialists remained under-subscribed, until 2001 anyway. The number of foreign nurses in the British NHS remained constant despite substantially increased recruitment. At the other end of the scale, recruitment of unskilled workers, often on a temporary basis, expands to work in agriculture, building and domestic services, despite persistent high unemployment in Europe particularly among foreigners themselves. Unregulated, casual trades also attract many illegal immigrants, who have also become prominent in prostitution and the drugs trade.

Figure 19.



Some European governments, notably that of the UK, have been persuaded that a greater inflow of potential workers benefits the economy even if they are not recruited to specific jobs; accordingly all kinds of conditions for immigration have been relaxed with a substantial increase on inflows to the UK. Others have maintained a more selective approach and have not opened their doors to the new EU accession countries. The economic evidence on which this is based seems rather tenuous and some of it is negative. For example, immigration can be shown to increase both local (Dustmann 2003) and remote (Hatton and Tani 2003) unemployment. Immigrants naturally increase overall GDP insofar as they increase population but may not increase GDP per head, which is what matters from the viewpoint of individual welfare. Some studies, e.g. in Sweden, show that all immigration taken together imposes a net economic cost on the country; others show benefits to the middle class but a reduction of income among the less well paid, e.g. Denmark and the USA (Storesletten, Wadensjo 1999). In general, immigrants from poor countries tend to impose a net cost on their host societies; the net benefits tend to come from immigrants from developed countries. Furthermore workers leave as well as enter. The net effect of migration on the labour force is generally unknown; many countries lack emigration data. But in the UK, which does collect departure data on a sample basis, outflow can be substantial. During the 1990s, almost as many persons left the UK as entered it for purposes of work, and the net inflow of labour migration to the UK was only 10,000 in 2000 and 36,000 in 2001 (when 90,000 UK workers departed). One wonders why.

Figure 20. Source: OECD 2003 chart 1.2, reproduced by permission. For notes see original.



Family migration

Chains of migration pulled in by existing immigrant communities (OECD 1978), often founded by workers, have given a momentum to flows which then owe little to economic considerations. Since the 1970s most legal migration into Europe and North America - up to 80% - has been not of persons arriving ostensibly to work, but of their dependants, relatives, spouses and new marriage partners, as well as persons arriving independently as students and more recently as asylum claimants, many of whom of course contrive to stay one way or another. The magnitude - and the variety - of this pattern is seen in Figure 20. For example, in France in the early 1990s, over 80% of migration from North Africa as family or humanitarian, into Austria about 90% (Biffl 2003). Even in North America, where the economic effects of migration are most loudly praised, the priority given to 'Family Preference visas' ensure that labour visas, even though recently increased, still account for only 20% of legal entries (163,000 H1B visas were issued in 2001, out of a quota of 195,000. And in Canada the same priority reduced the economic migrants to a variable and residual category within the quota until recently.

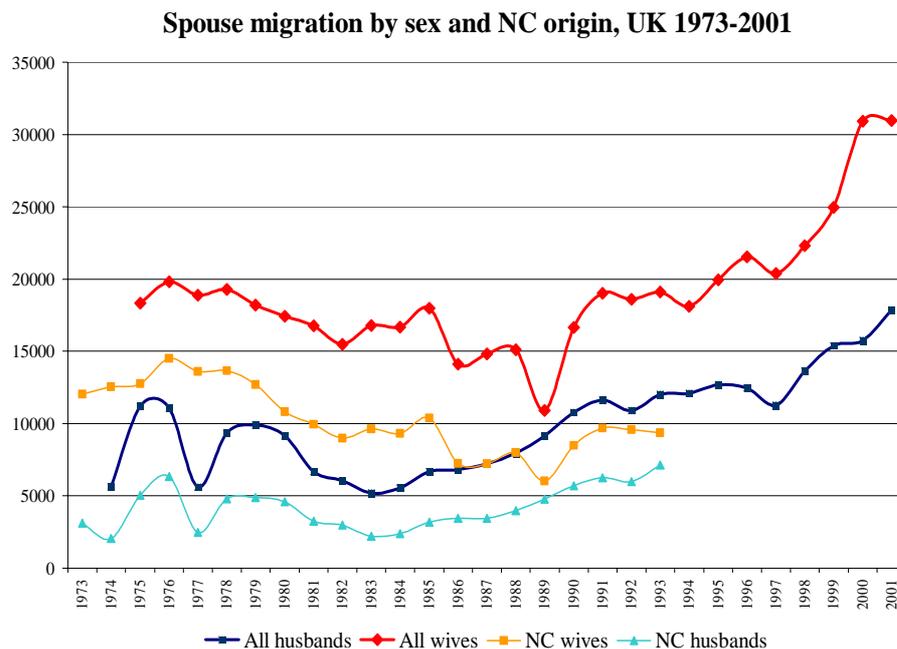
In the late 1980s and through the 1990s, the growth of immigrant minority societies in Europe, through immigration and strong natural increase has created powerful poles of attraction for further migration through marriage and other aspects of chain migration. Minority populations from North Africa, the Middle East and Asia, Muslims and Hindus, tend to prefer arranged marriages to persons of the same religion, race, nationality, caste and in the case of (e.g.) Pakistani Muslims, close relatives such as first cousins or nieces. Among many groups, life in the West has not weakened these preferences. Immigrants may cling to traditional ways more tightly than those who remain in the country of origin. Some, notably Muslims, reject or distrust Western secularism and prefer to import brides of guaranteed provenance and purity, free of liberal and disturbing Western ideas and attitudes, who have had no opportunities to disgrace family honour. Such migration also increases the size, and the local power, of immigrant populations. This process is notable among Turks but less among Moroccans in Belgium (Surkyn 1998), among Turks but less among Algerians in France (Tribalat 1995), among Pakistanis and Bangladeshis in Britain. In the Netherlands, marriage migration is now the most important route of entry (except asylum) for Turks and Moroccans (Figure 21).

This represents a failure of integration and its practice erodes it further. Chain migration slows down demographic change and integration, high levels of in-marriage are associated with other indicators of enclosure or integration (Lesthaeghe et al. 1998). The intensity of marriage migration also responds to the desire, among large numbers of people in the third world to immigrate to the West. There is widespread advertising for this purpose in the press and various rackets in the host countries. The rise of spouse migration has created a powerful and accelerating dynamic in migration to Europe, which in the late 1980s and 1990s has eclipsed the migration of established spouses in immigration streams to Europe, for example in the Netherlands and in the UK, especially after the abolition of the 'primary purpose rule' of checks intended to prevent the abuse of family migration. Nowhere have the expectations of integration been more frustrated.

Asylum and illegal migration

The discovery by intended migrants from poor and troubled countries of the world of an open-ended commitment made fifty years ago to clear up post-war chaos and distress has opened the way to a cumulative total of over 6.6 million asylum claims made in Europe since 1980 (because of duplicate claims, the number of individuals will be smaller). That total is about the same cumulated number as of labour migrants since 1980. While most claims are rejected, it is believed that most claimants nonetheless manage to remain in Europe. This parallel migration stream has greatly augmented flows into Europe and diversified the foreign-origin populations in all

Figure 21.



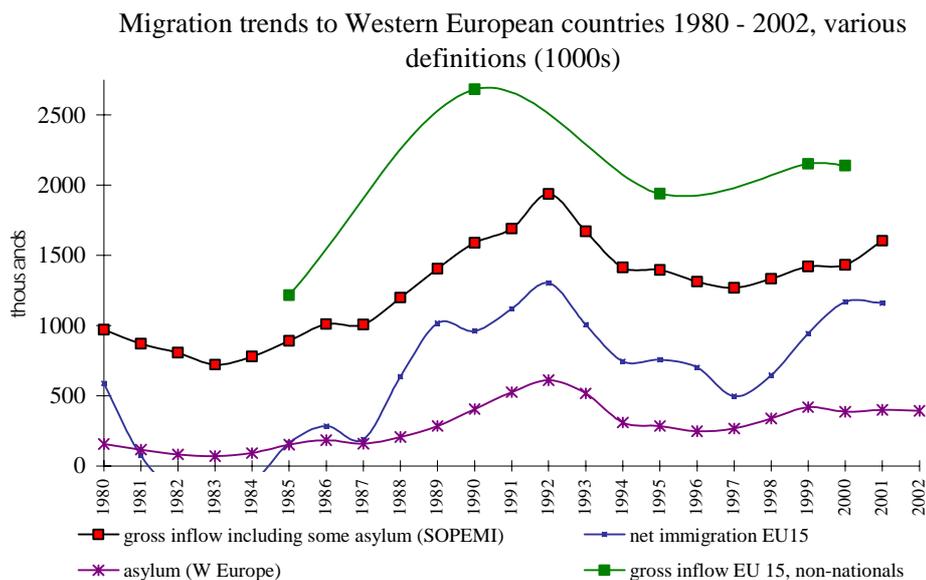
Source: data from Home Office

European countries. Patterns and problems of asylum have been treated in depth by Penninx (2003) for this meeting and need no repetition here (see UNHCR 2003).

The most salient conflict for Europe, in former Yugoslavia, paradoxically produced few actual asylum claims at the time, although many since. The usual asylum screening was clearly inappropriate and would have been overwhelmed. Most of the 2 million or so given shelter were given ‘temporary protection’; many have indeed returned to their former country, if not their former homes. While claims from particular countries ebb and flow in relation to the political situation, once started from a poor country they persist, and new flows constantly arise. Yugoslavia apart, it has not been easy to make a clear connection between the intensity of political unrest in the world and changes in overall asylum claims.

Europe is in a state of confusion over asylum. No political systems want claimants; they are seldom welcome in large numbers to the mass of the electorate. But moral principles of governments, their adhesion to international agreements, pressure group agitation, all over-ride popular opinion. In persistently affirming the commitment to asylum, governments send a welcoming message to the world which in practice they

Figure 22.



do their best to frustrate through visa systems, action against traffickers and continual attempts to simplify, and usually make stricter, the asylum system. Yet in the 1990s no European country has seriously considered the question of radical reform of the asylum principle. Most claims are rejected, although relatively few rejected claimants are believed to be removed. Asylum continues to be a process of mass population movement, as never intended, as well as a means of protection.

Asylum claiming is closely connected with illegal entry and over-staying; many claimants enter illegally and claim at a later date when apprehended. Those apart, a variety of uncertain approaches (IGC 1995, Widgren 1994, Salt 2000) contribute to a consensus of between 350,000 and 500, 000 illegal entrants to Western Europe each year, with an illegally resident population of perhaps 3 million. Rather more secure estimates for the US put the annual inflow at about 350,000 and the stock at 5 million.. Repeated amnesties secure the position of earlier illegal immigrant cohorts and do nothing to reduce further inflows (Orrenius and Zavodny 2003).

Changes in attitudes and policy, and their effectiveness.

Policy is more important in determining migration patterns than any other component of demographic change, and no phenomenon related to demographic change has had more impact on politics. But the political pressures are contradictory, and policy may change radically following elections which remove one government and replace it with another. Conflicting beliefs confuse the picture. Popular opinion in general opposes mass migration, especially from outside Europe, but political elites take a more permissive view. Immigrant and race relations pressure groups can exert more power than these diffuse concerns and can focus it effectively on Ministers. Hence liberal democracies do not find it easy to control immigration (Freeman 1994). As noted above some governments have been persuaded of the economic merits of mass migration, the UK government has even adopted American rhetoric in praise of the cultural diversity which mass migration brings with it. It is often claimed that immigration is in any case impossible to stop or reverse. A conviction of impotence is

thus allied with economic self interest in the new idea of 'managed' migration (Council of Europe 2000, IOM 2003).

These elevated sentiments seldom take into account the social and ethnic transformation of urban areas in Europe, not those on the whole where elites live, which disquiets popular opinion. It is customary to dismiss such concerns as 'racism' and 'xenophobia'. In the last few years, however, electorates have made their views felt by supporting right-wing or far right wing parties, shocking the political establishment in North Italy, in Austria, in the French Presidential election, in the Dutch general election of 2002, nearly overturning the German government in 2003 and stalling its new, more open migration law, returning a centre-right government with a restrictive immigration agenda in Denmark and disturbing consensus even in Switzerland. Even where the right-wing parties have failed or later fallen apart, much of the drift of their policy is absorbed by mainline parties. Even in the UK, a government still devoted to talking up and stoking up legal migration has adopted asylum legislation (the fourth since 1993) of a severity which could not have been contemplated by its Conservative, supposedly more right-wing, predecessor.

The growth of all forms of migration, new and growing migration pressures from abroad, the changing political situation at home and abroad, the ascendancy of the EU over national interests from 1998, has provoked a continual series of new laws. Some are designed to regulate and restrict, especially asylum, although others are permissive. Former communist countries have had to start from scratch, as have former emigration countries. For example new and generous Irish legislation of 1996, formalising entitlement to asylum in Ireland for the first time, has put the Irish Republic on the asylum map to such an extent that it now has one of the highest inflows per head of population in Europe, giving Irish society with a wholly new multiracial element. The UK government's incorporation of the ECHR into English law has further strengthened the hand of judges against ministerial attempts to stem asylum flows, assisted by numerous pressure groups funded by the government funds and public lotteries.

Finally, migration has gained further prominence in political debate a through a *volte-face* in attitudes to it by many of Europe's governments and media. As European population growth has started to run out of steam and population ageing has risen up the political agenda, opinions have become more complicated. Originally 'unwanted foreigners', immigrants are now also regarded by some as demographic salvation; needed to supply a missing workforce, provide care for the growing army of elderly and in general save European populations from the trouble of reproducing themselves.

Unique events – war and state collapse

The biggest migration surprises were provoked by the unique political crises in Central and Eastern Europe in 1989, in the Soviet Union in 1991 and in Yugoslavia in 1992. One of the surprises was that the expected mass-migration of newly liberated Eastern European and former Soviet citizens did not materialise. Migration rates have certainly increased, however, especially through short-term work schemes between Poland and Germany, increased work permit migration, students and illegal immigrants everywhere, including the most surprising places (numerous Russian prostitutes in Istanbul, for example). Over the decade, CEE and FSU populations in Western Europe, formerly sparse, have increased substantially, although they still

If that old diversity of the CEE is being lost, it was more than compensated in the 1990s by the arrival of entirely new populations. These are still small in number, officially between 0.1 and 2% of total population, although the official figures are likely to be substantial under-estimates (Table 8). More open borders to the West, and the dissolution of previously formidable border security, have attracted considerable migration flows from the South and the East, creating completely new Asian and African populations in Eastern Europe. Initially, most were seeking easier entry to the more attractive Western economies, where they can work illegally or claim asylum. That in turn increased immigration flows to Western Europe, particularly to Germany, which has taken about half Europe's legal immigrants in the 1990s and up to two-thirds of its asylum claimants. Many of these transit migrants, most with illegal or irregular status, balked at entry to the West, may become permanent residents. Further, the CEE countries have felt obliged to accede to the Geneva Convention at various times in the 1990s, preparing to re-enter the mainstream Europe of the Council of Europe and the EU, and for the first time these countries have started generating statistics on asylum claimants and refugees (OECD 2002). That will reinforce these new and unexpected flows of displaced persons and refugees from similar origins. Once settled, further growth can be expected from the arrival of dependants, spouses and new partners.

Estimates of the likely long-term added inflow from new accession countries to the EU arising from the free movement provisions are very mixed. For example Fertig and Schmidt (2001) made astonishingly exact predictions of between 66,740 to 73,583 immigrants to Germany per year from the CEEC-10 countries from 1995 – 2015. Other estimates range between 20,000 and 200,000 per year. The official view from the European Commission (2001, and Boeri and Buecker et al. 2000) is that enlargement will lead to an eventual migration of about 3 million from the new accession countries plus Bulgaria and Romania when they eventually join. Another study suggested that without transitional restrictions between 4 and 5 million would eventually migrate to Germany alone over 15 years from all the CEE countries. Salt et al. 1999 concluded that it was impossible to quantify the scale of future immigration, but that the most likely figure lay between the broad margins of 55,000 and 278,000 per year from all the accession states to the rest of the EU – the latter being a substantial increase in present flow. The higher of these figures is in line with the cumulative totals cited above. The poor economic and integration situation in the Euro zone in 2003 prompted most member states to impose a staged block on free CEE migration for up to 7 years. A bigger flow than expected, therefore, will move to the UK and to the Republic of Ireland, the only remaining countries that continue to offer immediate access.

Parallels between this migration and that from Southern Europe in the 1980s are not appropriate. Once free movement from Spain, Portugal and Greece was eventually permitted, inflows from those countries were modest. But they had already had a previous major guest-worker migration in the 1950s and 1960s. Their GDPs per capita, about 50% of the EU average in the 1960s, had risen to $\frac{3}{4}$ by the time the migration restrictions were lifted. By then the guest-worker migration was in reverse and migration pressures had disappeared. None of the is true in the CEE countries, where per capita Gross National Income is still just under half the EU level (47%) on a purchasing power parity basis (World Bank 2002; European Commission 2003),

where there are large and unproductive agricultural populations and, with the exception of Poland, where guest-worker migration is still at an earlier stage. Unemployment in the new accession countries is even higher than in the Euro zone, in Q4 2002 being 18% in Poland, 17% in Slovakia, 9% in the Czech Republic and 8% in Hungary (UN ECE 2003 Table 3.4.2)

The demographic effect of migration – immigrant, foreign and ethnic minority populations in 2000

About 175 million people throughout the world now live in a country that is not their birthplace (UN 2002). Of these, about 106 million live in the ‘developed world’: 56 million in Europe (8.5% of population), 46 million in the countries of the English-speaking world overseas (13.8%, mostly – 35 million – in the US) and 4 million in the Asian industrial countries. The ‘European’ figure of 56 million, however, is misleadingly high. It includes over 24 million residents of the republics of the former Soviet Union. Most of these were born in other republics of the former Soviet Union, very few from outside its borders. Until 1992 few would have been classified as having been born in a foreign country. The events of 1992 transformed their status overnight into that of foreigner.

In about 2001, Western Europe had the largest number of immigrants in any region of Europe; that is persons born abroad (18.8 million) and the highest proportion relative to population (10.3%). France and Germany have 6 and 7 million respectively, about 10% of the population as in the Netherlands (1.6 million). That is almost as high as the proportion of immigrants in the US (12.4 %). In Switzerland and in the small population of Luxemburg, over 20% were born abroad, about the same as in the countries of the English-speaking world overseas (e.g. Canada 19%).(Table 9)

Table 9. Foreign Population 1971 – 2001 (thousands and percent)

Country	1971		1981		1991		2001	
	thousands	%	thousands	%	thousands	%	thousands	%
Austria	195	2.6	288	3.8	439	5.7	761	9.4
Belgium	663	6.9	861	8.7	905	9.1	862	8.4
Denmark	100	2.0	102	2.0	161	3.1	259	4.8
France	3714	6.9	3608	6.3	3342	5.8
Germany	3054	3.9	4453	5.7	5343	6.7	7297	8.9
Italy	122	0.2	211	0.4	566	1.0	1271	2.2
Netherlands	247	1.9	521	3.7	692	4.6	668	4.2
Norway	76	2.0	83	2.0	143	3.4	184	4.1
Spain	148	0.4	183	0.5	279	0.7	896	2.2
Sweden	411	5.1	422	5.1	484	5.6	477	5.4
Switzerland	1080	17.4	915	14.4	1130	16.7	1424	19.8
UK	1638	2.9	1892	3.3	2580	4.4
Sum	6097		13390		15641		20020	

NB France, Greece, Portugal UK, 2001 data Labour Force Survey. Italy 2001 data 2000 Source Council of Europe 2002 t 1.8 and Eurostat 2002

In Northern Europe, demographically dominated by the United Kingdom, the foreign-born population comprises a slightly smaller proportion of the total; 7.8%. Latvia and Estonia have much higher proportions as a result of planned 'Russification' in Soviet times. The rise of Ireland's foreign-born population to 8% is new; a proportion are returned expatriates of Irish origin.

These data on birthplace ignore citizenship. Most immigrants are foreign citizens.. Returning citizens, or those entitled by ancestry to citizenship form only a small part. East European *aussiedler* of (often remote) German origin, mentioned above, have moved to West Germany in large numbers since the Basic law established their entitlement under the *ius sanguinis*: 2.3 million from 1987 to 1996. Their return peaked as recently as 1992 and continues (105,000 in 1999). They are not included in statistics of the foreign population but they are included in the statistics on naturalisation. The Southern European countries share similarly low proportions of immigrant population according to official figures. However the 2-5% reported for Italy, Portugal and Spain, conceal a large number of illegal residents.

Citizenship and naturalisation.

Citizenship is the usual indicator of immigrant status in continental Europe, and a misleading one, in both directions. Naturalisation makes foreigners disappear, often in large numbers. It accounts for the apparent absurdity of the decline in the foreign population in France from 1982 (3.71 million) to 1999 (3.26 million), in the Netherlands from 1990 (692,400) to 1999 (651,500) and in Belgium over the same period. It might be argued that this is only appropriate, as foreigners acquire new citizenship by having shown a commitment to and knowledge of the new homeland. This transubstantiation, however, may be very partial, especially in those countries where naturalisation is seen not as a reward for assimilation to the local culture but rather as a mechanism to encourage integration. Naturalisation has been powerful in reducing the apparent size of the foreign origin population (Table 10). In Europe in the mid 1990s, the proportion of foreign-born population who retained foreign citizenship had fallen to 48% in the Netherlands while remaining as high as 92% in Denmark.

Table 10 Foreign and immigrant population compared, mid 1990s

Country		Population (millions)	Born abroad (thousands)	Born abroad (percent)	Foreign nationality (thousands)	Foreign nationality (percent)	Foreign as % of immigrant
Denmark	1996	5.236	259.2	5.0	237.7	4.5	91.7
Netherlands	1995	15.531	1407.1	9.1	679.9	4.4	48.3
Norway	1996	4.381	246.9	5.6	157.5	3.6	63.8
Sweden	1996	8.841	943.8	10.7	526.6	6.0	55.8
Great Britain	1991	54.889	3746.1	6.8	1791.0	3.3	47.8

Sources: OECD 1998 table B.1.5, B.1.6; Council of Europe 1998, UN 2002

The broader net effect of international migration, the growth of the immigrant-descended population, would be reflected by citizenship statistics if the children of foreign immigrants likewise retained the foreign citizenship of their parents. That would give an estimate analogous to that of the 'ethnic' population categories used in

the English – speaking world including the UK, but avoided elsewhere in Europe with the partial exception of the Netherlands.

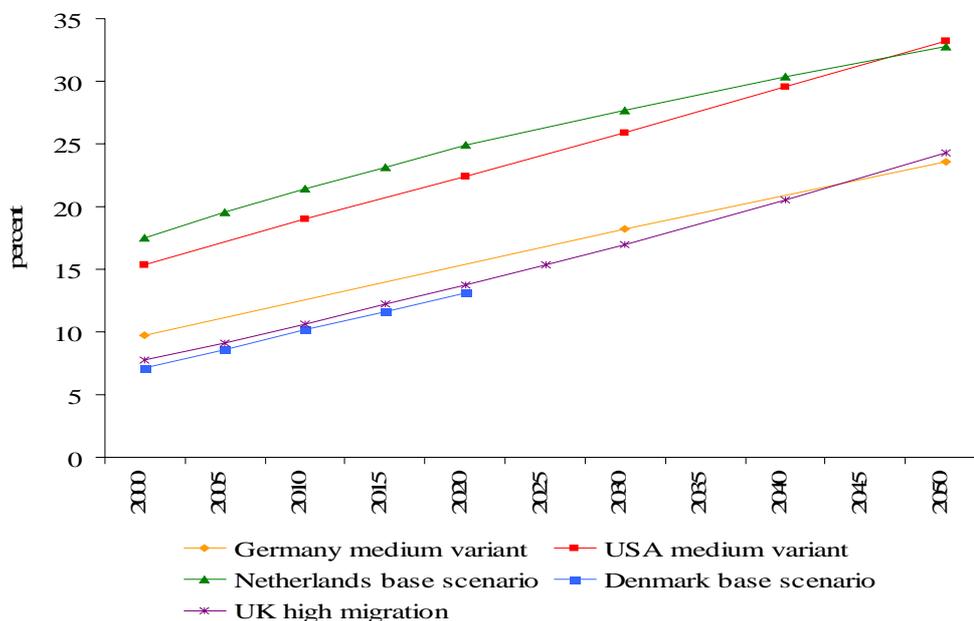
Growth of immigrant and minority populations

Many immigrant ethnic minority populations come from countries with incomplete fertility transitions. Immigration and high fertility, allied to a youthful age-structure, have generated rapid growth. In 1951 the UK ethnic minority population, judging from birthplace data, is likely to have been below 50,000. By 1971 it had grown to 1.4 million and by 2002 to 4.7 million, an annual growth rate during the 1990s of 2.9%. In 2001, over half was born in the UK and the rest, including most adults and heads of household, were born abroad. In the US the most dramatic growth has been that of the Hispanic population. Most are of more recent immigrant origin. When the ‘Hispanic’ category was first introduced into the US Census questionnaire in 1970, 9.1 million were enumerated (4.5%). By 2000 this had grown to 35.3 million (12.5% of the total population), with the biggest ever increment (57.9%) occurring in the last intercensal period since 1990 (US Bureau of the Census 2001b), an annual rate of 4.5% per year. This growth arose mostly through immigration even though the Hispanic TFR is almost 50% higher (2.95) than the US average (2.03). The Asian population, entirely of immigrant origin, grew from 6.9 million, (2.8%) in 1990 to 10.2 million (3.6%) in 2000 (US Census Bureau 2002). In the US 2000 census 63.1 million people identified themselves as belonging to a non-white racial group (22.4% of the total population). An additional 6.8 million people (2.4%) claimed descent from two or more races; about 80% ‘white and other’ (US Census Bureau 2002a, Goldstein and Morning 2002). In the UK, 18.7% of the ethnic minority population aged 0-15 in 2000 was of mixed origin, mostly white / Caribbean. (Coleman and Smith, in preparation).

Current levels of immigration into many Western counties, together with the relatively higher rates of increase of some populations of immigrant origin, are transforming the structures and compositions of those societies. Population

Figure 24.

Projected growth of population of immigrant or foreign origin 2000 - 2050 as percent of total population



Sources: Alders 2001a,b, US Bureau of the Census 1996, Think Tank on Integration 2002, Ulrich 2001.

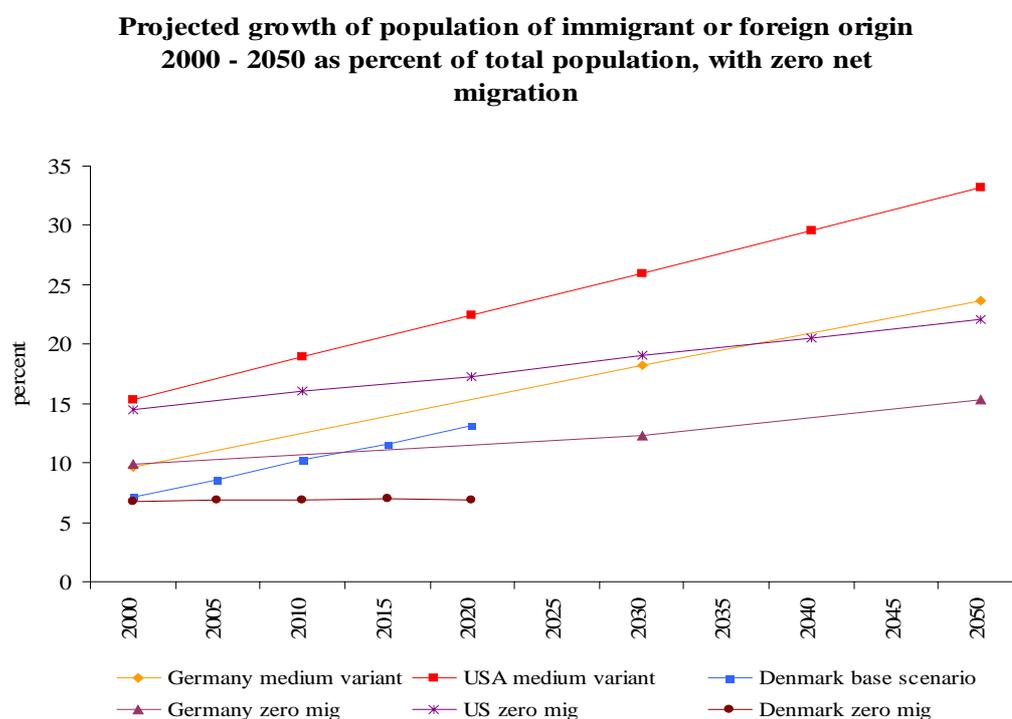
projections of foreign-origin or ethnic minority populations are available only for a few countries (Figure 24). They show a striking similarity in the rate of increase of the ethnic or foreign origin population, to reach between 20 and 30 percent of the total population by mid-century and for the most part still increasing rapidly. The foreign origin populations here include foreigners of Western origin as well as non-Western: about half the starting total in the case of the Netherlands, for example. These are projected to increase only slightly before stabilising or declining. The native population of those countries would remain static or decline slightly over the same period. In most of the projections, higher immigrant birth rates are assumed to converge on those of the general population. It is continued immigration that makes the difference. Variant projections with net zero migration assumptions show only modest further increases in foreign population (Figure 25). If immigration to the developed world continues at recent levels, the ethnic and social composition of the population of many European countries, as well as that of the US, will be radically and permanently transformed.

Concluding remarks

This paper has covered a wide area and does not address a single thesis. These concluding remarks will address a small selection of topics, and attempt to bring together some of the themes discussed above.

The demographic turbulence created by the political and economic upheaval in Eastern Europe at the beginning of the decade remains its biggest event of the decade.

Figure 25.



Sources: Alders 2001a,b, US Census Bureau Census 1996, Think Tank on Integration 2002, Ulrich 2001.

In 1990 the huge impact of the collapse of communism in 1989 was only just becoming apparent and the demise of the Soviet Union was still to come, Czechoslovakia and Yugoslavia had not yet separated and Germany was not yet unified. These areas have seen profound demographic upheavals and the jury is still out on what the final outcome will be. Certainly the relative demographic, social and political uniformity which characterised the communist bloc in 1990 has been shattered and its component populations are moving apart in divergent directions; some to a prosperity and stability which has taken them into the EU, albeit with some holding of breath, others still languishing in a post-communist economic, political and social *tristesse* of persistent high mortality, lowest-low birth rates and actual, not prospective, population decline.

Further West, international migration dominated European population dynamics in the decade, often in unlooked-for ways. While the great Soviet outflow did not materialise in the expected way, the Yugoslav catastrophe forced two million to move, helping migration reach a peak in 1992 from which it receded only to rise again following the more resistible rise of globalised asylum-seeking. Perceptions have changed and changed again. Migration, whose rapid rise in the early part of the decade provoked unprecedented across-party cooperation in Germany to stem it, lives under two parallel and incompatible pressures. Elite opinion favours more migration to promote the economy and gives high priority to preserving the principle of asylum. Mass opinion in Europe increasingly opposes it as communities change visibly under its impact.

In terms of public and political perception, the 90s was the decade of population ageing, as media, governments and pension systems finally woke up to the long-heralded prospect of the unsustainability and insolvency of their retirement, labour market and pensions arrangements. Never has the discipline of demography enjoyed such favour from the media, even if its reward is to be vulgarised as 'demographics'. Fads have come and gone. The concept of 'replacement migration' to prevent population ageing, was shown by UNPD to involve immigration and population growth levels implausible even to the most enthusiastic. Yet these hypothetical calculations were taken as necessary prescriptions by serious politicians. Saner counsels have now abandoned these wilder shores of demography. However some governments, mostly English speaking, cling to the notion that immigration offers economic, if not demographic salvation and have promoted it to record levels in the last few years. Meanwhile most of Europe tries to moderate flows except those of the highly-skilled.

The conceptual landscape in demography has changed radically. The second demographic transition maintains its progress. The trends that it describes have become more prevalent in the developed world and more popular as a scientific paradigm. Only formulated in 1987 to account for the rise of cohabitation, divorce and illegitimacy amidst the ebbing of marriage, this concept has seen its predictions of the globalization of such behaviour in the modern world at least partly vindicated. In gaining wide acceptance, it has promoted a whole new industry of demographic research based on ideational change as the driving force. New techniques have been

developed for the analysis of the life course, for the 'correction' of period fertility measures, for probabilistic population projection, for the integration of macro and micro scale effects, which have transformed the analytical landscape. Accordingly, demography has become much more complicated in the 1990s, and only limited areas can be explored here. We know much more about the workings and relationships of its component parts. But the future remains an unknown country.

In the meantime, Europe has been radically re-arranged. The fall of the iron curtain and the collapse of the Soviet empire and various of the inventions of Versailles and Trianon – Czechoslovakia and Yugoslavia - have greatly increased the number of European countries even while Europe's overall population is on the edge of decline. Only one has disappeared, East Germany being swallowed by the Federal Republic. Fortunately the communist sub-national republics provided good statistical series. The new re-arrangement of European countries by the UN may make geographic sense but has created some very heterogeneous regions, as Northern and Southern Europe have both acquired new and relatively poor former communist members. The Russian republics of the Soviet Union, formerly a block unto themselves, now join Europe, taking its population to (750) million and its boundaries from Reykjavik to Vladivostock.

Convergence and Divergence in the UN ECE area

We might ask if any tendency is apparent for the diverse populations of the UN ECE area to converge on a common demographic pattern. So far the answer appears to be rather little (Coleman 2002). Neither is it regarded as being inevitable (de Beer and Van Wissen 1999). Modern countries maintain long-standing differences of many kinds. These include political systems and electoral preferences, national characteristics of various kinds (Inkeles et al 1996), values and attitudes (Inglehart 2000). Whether welfare institutions, which may have important demographic effects, are converging remains controversial (Greve 1994, Gauthier 2002, Tomka 2003). One striking examples of non- convergence is the persistence of large differentials in standardized mortality rates from accidents and violence in 31 industrial countries, especially traffic accidents, despite near identity in the cars driven, the standards of road and signs, the use of seat belts, laws against drink-driving and so on (Adams 1985, Chesnais 2003). If symmetrical gender equity is an important determinant of fertility levels (McDonald 2001) then convergence may indeed be slow, as such a change in the fundamental relations between men and women would require a major cultural transformation in Southern and probably Eastern Europe.

In the East, a unique political system has put these populations under un-natural constraints for decades (see Lutz, Scherbov and Volkov 1994 , part III; Meslé, Schkolnikov, Hertrich and Vallin, 1996). These constraints, summarised by Elwood Carlson (in press) as the 'State Socialist Mortality Syndrome' have driven them off the trajectory of improvement in survival which would have been expected earlier in the century. On top of that is the recent increase in the death rate in many (not all) of the countries in transition. The convergence imposed by communism is given way to centripetal forces taking the former communist block in different directions, often to a position closer to their former neighbours.

The achievement of low mortality in the West is far from uniform. Despite the triumphs of oldest old survival, mortality is not in retreat everywhere. An early group

of low mortality achievers; The Netherlands, Denmark and Norway for example, have failed to make much recent progress, and none at all among Danish women. The statistical mediocrity of survival in very successful economies such as that of Germany, with high expenditure on medical services, suggests that further convergence cannot be expected simply on economic grounds (Vallin 1995). Models of economic inequality (Wilkinson 1996) compete with dietary hypotheses. The superior survival of the populations of the 'olive oil belt' of poorer Southern Europe compared with the richer sausage beer and chips belt of Northern Europe confounds economic explanation of mortality differentials, but does connect persuasively with parallel advantages shown surprisingly in such places as Albania (Gjonça 2000) and (FYR) Macedonia.

It may be that the 20th century saw so many upheavals that a forecast of the outcome is beyond the reach of theory; the turbulence created in the 1990s has unhelpfully muddied the demographic waters. The expectation for the future must be one of constrained variety, more in some areas than others. Past trends may be some guide, in that demographic characteristics do seem to be geographically located and some salient characteristics today connect with the particularities of the past, for example the familism and household patterns of Southern Europe (Reher 1998) the Scandinavian history of births outside marriage, now shared by Estonia. The ancient division of Europe by Hajnal's line, which outlasted the Ottoman and Russian Empires and was if anything re-inforced by the Soviet one, looks as though it will not survive the end of the iron curtain.

The demographic consequences of the EU and its expansion.

In the same decade that the Communist block collapsed, the European Union made exceptional gains in acquiring additional countries as member states and additional power over policies indirectly, if not directly, affecting fertility migration and health. Likely consequences include the convergence of family-formation and family-building behaviour under the influence of increasingly common welfare and entitlement policies. The EU Commission believes that EU demographic and other social characteristics are already converging (European Commission 1995) and will need similar policy responses (Hantrais 1998) as a result. Demographic convergence is already regarded as one indicator of a desirable harmonisation of European social conditions. Although so far no European Directive relating to standard European birth rates, death rates or household structure has been formulated, the possibility of harmonized EU demographic optima has already been raised (Gesano, 1999). Since the Amsterdam Treaty and the Tampere meeting, Migration and Asylum Policy has moved from the 'Third Pillar' of responsibility of member states, to community competence. A European migration policy has been proposed (European Commission 2000) despite the very different demographic and workforce conditions of different European states (Coleman 2002). The Cohesion Fund and the Structural Fund are of course intended to accelerate the removal of economic inequalities in the EU area, between and within countries; other things being equal that must be expected to bring family formation more into line. However if the problems with the Euro continue, the overall economic effects may not be favourable upon families. Furthermore the effects of EU fiscal and competition rules on the new accession countries may, at least in the short run, be highly disruptive to their economies and some areas of their economy, especially agriculture and rust belt industries. The example of the former East Germany after 10 years is not encouraging.

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