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AND
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DEMOGRAPHIC RENEWAL AND PROBLEMS OF SOCIAL ORGANIZATION

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"L'acroissement du chômage est un drame provoqué, nous dit on, par l'augmentation de la population active de notre pays avec, en particulier, l'arrivée des jeunes sur le marché du travail. Notre drame futur, nous répète-on, c'est que, ne faisant pas assez d'enfants, nous allons provoquer une diminution de la proportion de la population active de notre pays. Même si cela est contradictoire, de beaux esprits nous expliqueront surement qu'il existe une logique qui nous échappe".

M.Caste, Le Monde, 30.12.1980.

This paper stems essentially from a short lecture given at the "Agora Demography", a symposium organized by the King Baudouin Foundation. The views expressed in the paper are the author's and the Foundation bears no responsability whatsoever. The reader will furthermore note that my intellectual debt at some places to N.Keyfitz and B.Arthur is substantial.

DEMOGRAPHIC RENEWAL AND PROBLEMS OF SOCIAL ORGANIZATION

1. Introduction

It may seem odd to build a paper destined at a general public around some of the findings of formal demography. To the layman, formal demography appears to be a highly sophisticated mathematical and hence academic enterprise, but not directly a very relevant one. The fact that this branch of demography deals with long term trends and swings does not add to its popularity either, especially among those whose jobs are defined in terms of short term policy preoccupations. Yet, the incorporation of formal demographic reasoning - even if solely done as an intellectual passtime - in various applications of social and economic system thinking is more relevant than ever in societies which are currently facing major technological changes and concommittant restructuring of their social fabric.

In this paper, we shall restrict ourselves to some effects of a single demographic factor only, namely fertility. The reason for this choice is that all forms of social organization face the universal problem of demographic renewal and that fertility (along with mortality and migration) is a major determinant of this process of generational succession. Obviously, this factor can operate along an upward, downward or stationary trend, but also along an irregular path superimposed on such long term trends. Any social or economic sector has to cope with such trends and perturbations in this renewal process, and the degree of adaptation and regulation will largely depend on the organizational paradigms behind the structure of the sector concerned. In other words,

the problem quickly ceases to be a purely demographic one. Instead, we are facing a complex issue of demographic "stimuli", organizational structure, constraints or adaptability and possibilities for feed-back mechanisms. The matter becomes more complicated still when the time dimension is introduced: the relative sizes of the cohorts which are alive at present are largely a direct age structure translation of our demographic history since 1900 (and hence irreversible), while current levels of fertility will leave their marks on the succession of age compositions from now on till the middle of the 21st Century. The reason for this is simply that the average life span of individuals is 75 years.

The first section of this paper deals with some formal demographic properties of oscillating fertility (irrespective of the trend on which the oscillations are superimposed). The reason for its incorporation is that the commonly stated argument, which considers the present sub-replacement fertility as a mere compensation for the above replacement fertility of the 1950's and 60's, fails to take account of the possibility of some rather nasty surprises. Here, we shall be dealing with the purely demographic problem of unstable fertility and its echos in the annual number of births. The second section covers the demographics of the current labour force renewal and the promotion process that it entails. At this point, we shall show that the new generations not only had a hard time for economic reasons, but also that they have been the victims of a peculiar demographic accident. Moreover, as the life expectancy of participation in the labour force is about 40 years, the problem of a difficult start may not just vanish with the finding of a first job. The third section, finally, deals with the future of Western populations as implied through various scenarios with respect to fertility and migration. Here, we shall focuss on a number of caveats connected with two other

commonly proposed "solutions":

i) Western Europe will be able to draw again on the labour force of the Third World if need be;

ii) If the making of an industrial society allowed for or required population growth, then the post-industrial society of the 21st Century will be able to function with or may even require a much smaller labour force and hence also a smaller overall population size.

2. The hidden properties of unstable fertility regimes

This section on the formal properties of population models with stabilizing oscillations is inserted for several reasons. As stated earlier, the present period of sub-replacement fertility is rather commonly viewed as a "natural" compensation for the above replacement fertility of the 1950's and 60's. It is reasoned furthermore that such alternating periods would not endanger the long term stationarity of population size for as long as the fertility oscillations are centered around replacement-level fertility itself (i.e. a net reproduction rate of unity). However, in order to appreciate this argument, an examination of the orders of magnitude is required together with an inspection of the often overlooked amplification or dampening mechanisms involved.

The precise mathematics of sinusoidally oscillating fertility and its impact on age structures are fully developed in Coale (1972), and the details of an application to the Belgian population can be found in Lesthaeghe et.al. (1979). Here, we shall merely restate the basic traits.

In a population closed to migration and experiencing constant mortality, sinusoidally shaped fertility oscillations between fixed upper and lower boundaries produce population waves in such a manner that a demographic regime ultimately results which is characterized by periodically repeated birth, death and growth rates. Moreover, the same set of age structures (expressed in percentages in each age group) will be periodically repeated as well. Such regular waves in population parameters can be superimposed on a long term trend with positive, negative or zero population growth, depending on the central level of fertility. This feature of stabilizing population cycles is, however, only a point of minor relevance. Far more important is the degree to which oscillating net reproduction levels - even if moving between relatively narrow boundaries - are translated into swings of the annual number of births, and hence into age structure irregularities. Here, much depends on the periodicity of the fertility cycles, i.e. the number of years between two successive maxima or minima. If the oscillations in fertility (i.e. net reproduction rates) happen to have a periodicity equal to the mean age of motherhood (commonly between 26 and 28 years in the West), large cohorts of mothers start having the higher fertility regime, and these two maximizing factors combined will produce a major amplification of an upward bulge in the birth stream. Conversely, in this particular regime, also the smaller than average cohorts of mothers will end up with sub-replacement fertility and produce a new cohort of babies which is much smaller than expected. Hence, the coincidence of periodicity in fertility waves and the mean age at maternity produces a demographic regime with maximal amplication of irregularities in the annual number of births. If the periodicity is twice the mean age at motherhood (i.e. 52-56 years), exactly the opposite occurs and a regime with maximal dampening of cycles in the birth stream develops:

large cohorts will now end up with sub-replacement fertility and small cohorts with levels above replacement. Finally, if the periodicity of the fertility cycles is half the mean age at maternity (i.e. 13-14 years), an intermediate system comes into existence as a given cohort of women experiences a portion of the high and a portion of the low fertility cycles. However, the oscillations in the birth stream, and hence also in the age structure, follow each other very rapidly. This has little effect on sectors involving broad age groups (e.g. retired versus active population) as the ups and downs compensate each other in such broad age categories, given the rapidity of their succession, but this does not hold for sectors involving narrow age groups (e.g. education, entrance into the labour force and retirement itself).

An application with Belgian data now provides the orders of magnitude. If fertility oscillates around replacement level and between net reproduction rates of 1.2 and 0.8 - which were the boundaries experienced during the postwar period - with varying periodicity, the number of births per annum will start oscillating from the beginning of the next century between the figures given in Table I. The observed maximum in the postwar period (162.000 births in 1963-64) was 37 percent larger than the observed minimum (118.000 in 1975 and again in 1983). In the regime with identical boundaries for the net reproduction rates, but with maximal amplification as a result of a periodicity of 26 years, the maximum number of births in the cycle is twice as large (195.000) as the minimum (98.000). In the instance of maximal dampening, the maximum is only 21 percent larger than the minimum (150.000 and 124.000 respectively). However, the latter regime has long periods of unfavourable dependancy ratios: the deficit cohorts will fill the broad age group of active population, while the surplus cohorts will fill up the categories of children and retired

Table I : Maximum and minimum annual number of births generated by various periodicities of oscillating fertility; Belgium after 2010.

	Maximum	Minimum	Ratio
i) Observed values postwar period (1945-1983)	162.000	118.000	1.37
ii) Models with stabilizing cycles ($0.8 \leqslant R \leqslant 1.2$)			
- periodicity = 13 years	170.000	98.000	1.48
- periodicity = 26 years	195.000	98.000	1.99
- periodicity = 52 years	150.000	124.000	1.21
iii) Number required to produce a stationary population of 9.8 million inhabitants with a life expectancy of 75 years[(a)]	131.000		

(a) In a stationary population the annual number of births (B) equals the population size (N) divided by the life expectancy at birth (e_o) : $B = N/e_o$. With a life expectancy for both sexes combined of 80 years, the annual number of births required to maintain the present Belgian population size would be : 9.8 million/80 = 123.000.

persons. At other periods, which are equally long (i.e. 26 years), the reverse will apply.

The meaning of these swings in the annual number of births can best be appreciated when also considering the regime that would lead to a stationary population on the basis of a constant net reproduction rate of unity. In this regime, the annual number of births would have to stay very closely to 131.000 if life expectancy is 75 years and if the ultimate stationary size of the Belgian population is also the present 9.8 million. The system with maximal amplification would by contrast produce an annual number of births that is 49 percent larger or 25 percent lower at its peaks and troughs which succeed each other at intervals of 13 to 14 years only.

From these figures, it is obvious that the argument of "compensating" fertility swings hinges largely on the periodicity factor. Ironically, this is the factor which is hardly ever mentionned in any of the discussions in which the argument is raised. Hence, once this caveat is introduced, the comfortable opinion, considering current low fertility as a correction for earlier high fertility, should be reconsidered in view of the large age structure distortions that are produced.

3.Unstable fertility and current career prospects

The growth of unemployment in virtually all EEC-countries after 1975 has undoubtedly many reasons other than demographic. Yet, in addition to the impact of economic factors, a non-negligible role has also been played by a peculiar coincidence that has its roots in demographic history. The persons reaching retirement age in 1975 were born between 1910 and 1915 (assuming retirement between ages 60 and 65) and those retiring in 1980

belong to the birth cohort of 1915-1920. In virtually all Western European countries, these birth cohorts were of a remarkably small size as a result of World War I. Those joining the labour force in 1975 - assuming an age at entry between 20 and 25 - were born between 1950 and 1955, and those entering in 1980 belonged to the cohort born between 1955 and 1960. These post-war cohorts had a steadily increasing size as a result of the fertility increase during this period. As a consequence, the ratio between these two age groups (i.e. 20-24/60-64) during the 1970's and 80's is bound to reflect this justapposition of two historical demographic periods.

For Belgium, this overall entry-retirement ratio for both sexes combined was 135 candidates for entry per 100 potential leaves in 1970. In 1976, the ratio was 165 and by 1980 it had soared to no less than 200. Youth unemployment (i.e. < 25), covering nearly a third of total unemployment, then stood at about 150.000 persons, which is the size of a complete annual birth cohort of the 1960's. Hence, the large birth cohorts of the late 1950's and early 1960's not only had the disadvantage of presenting themselves on a shrinking labour market, but also the added disadvantages of their own size and of having to replace a small group.

After 1980, the entry-retirement ratio will obviously shrink from its unprecedented level of 200: it will decrease to about 140 in 1985, 130 in 1990 and 120 in 1995. Substantial deviations from this trend are highly unlikely simply because the cohorts involved are already born and since migration in Belgium is still of minor importance. However, the entry-retirement ratio may give too optimistic a view for the immediate future: the cohorts born in 1960-1970 are the largest of all, and even if they have to replace larger numbers of persons retiring, the pressure will still be on till the end of the 1980's. Obviously, this pressure will be

enhanced if investments continue to be predominantly oriented at labour-saving technologies and when no major redistributions of jobs takes place. Moreover, when the organizational parameters of the labour market are not drastically changed, the new cohort of candidates will be split into maximally polarized groups. On the one hand, those who manage to achieve entrance only stand to lose from job redistribution schemes (such as the Coens redistribution plan for the education sector in Flanders), while on the other hand, those who fail to achieve entry may lose some of their skills and shoulder the entire burden. In such a situation, particularistic methods of acquiring entry, such as political patronage, are bound to florish even more.

With the question of entry into the labour force, the story merely begins. As said earlier, labour force participation lasts for at least some 35 to 40 years, and the problem of a set of larger cohorts following smaller ones is maintained subsequently. As a result, the question of position at entry and of promotion thereafter is again conditionned by both the demographic and the organizational parameters. Strictly demographically speaking, the promotion probability for a given individual is reduced by high density at his/her own age, while internal competition is enhanced when the number of vacancies ahead are restricted. Persons belonging to the cohorts born between 1955 and 1970 essentially face this kind of problem. For those born after the large birth wave, i.e. after 1970, the problem is different but no less difficult: it is no longer the density at their own level, but the high density in front of them which hampers their promotion chances. The closer one follows the bulge, the greater the blocking effect.

Two additional factors now interfere. First, much depends on the

rules that govern promotion. Second, given these rules, very large differences may come into existence, depending on the individuals' abilities and/or the cohort's "technological vintage". The role of these factors can intuitively best be understood by making reference to a few simple diagrams proposed by B.Arthur (1983), and shown in Figures 1 and 2. On the horizontal axes of these figures, we find time; on the vertical axes a measure of individual ability (i.e. abilities relevant to the sector or corporation concerned). In the figures themselves lines are drawn in which demarcate positions in an organizational hierarchy (the lowest position is to the left). In Figure 1, the position boundaries are fairly parallel, meaning that promotion is essentially a matter of time and age, and hence of seniority. In Figure 2, the promotion lines are closer for individuals with high scores on relevant abilities and much further apart at low ability levels. This is the typification of a much more meritocratic system. In this system, a person who joins later (here individual A) has the possibility of leap-frogging another individual (here B) on the basis of higher ability. In the seniority-based system, all person A can achieve is to come temporarily at par with individual B.

The consequences of such simple promotion rules are of major importance when coupled to demographic regimes with unstable renewal. If the seniority system prevails, the smaller cohorts born before 1955 are relatively "safe" in the sense that they are being promoted without having to fear the higher ability "leap-frogs" from the higher density cohorts born after them. As higher ability may also stem from a cohort technical vintage effect, blocking of a fraction of the younger cohorts, mainly born between 1955 and 1970, results in slower technological adaptation. In addition, in a seniority system with constant or shrinking new job openings, it is the paradigm governing recruitment that is of primordial

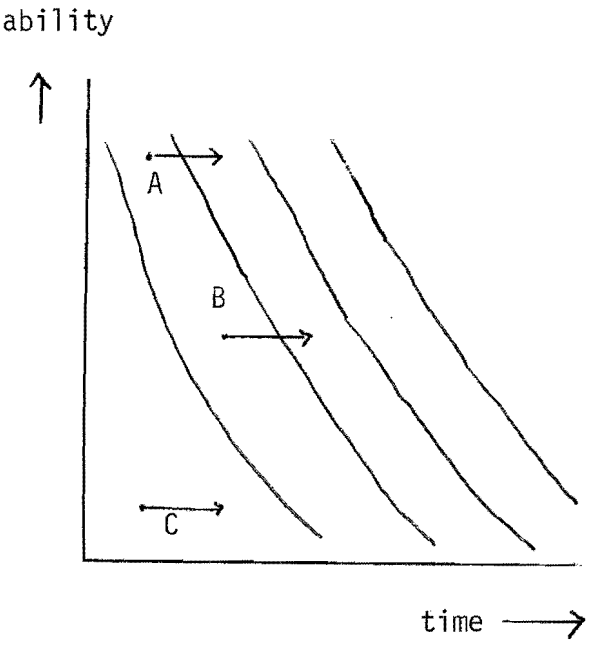

Figure 1 : seniority system

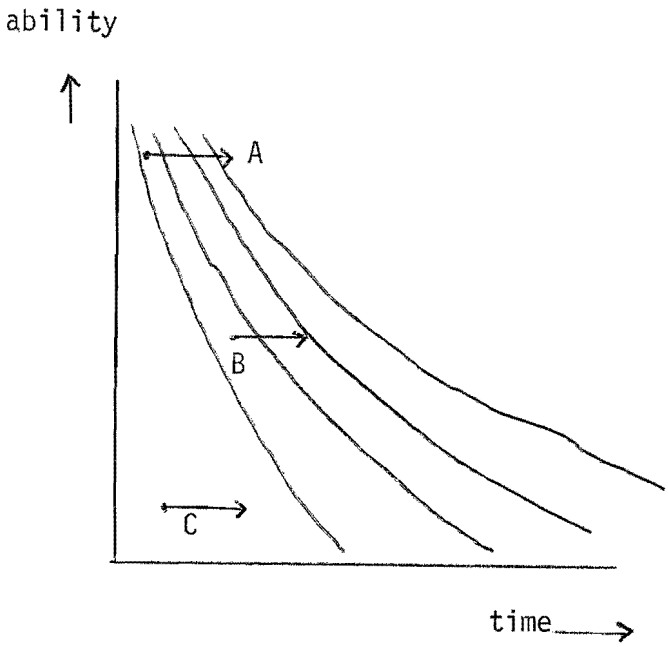

Figure 2 : meritocratic system

Career promotions of 3 hypothetical individuals during a fixed observation time in two systems of promotion.

importance for the high density cohorts. Last but not least, also the chances of the low density cohorts born after 1970 and especially shortly after 1975 may be hampered by the presence of high density ones in front of them. In general, much of the technological vintage effect, which has been so dramatic in the last decade, may be lost in a seniority based system.

In the meritocratic system, several of the negative consequences of unstable renewal are alleviated, but others emerge in the form of ability-based selection. In the example of post-war fertility, the smaller cohorts born before 1955 now feel the pressure of the high ability members among those born after them and certain members of the pre-baby bulge cohorts may be prompted to adapt technologically in order to maintain their age-based advantage. The large cohorts themselves, engaged in enhanced internal competition, are likely to produce winners and losers, depending on acquired and updated abilities and motivation. Furthermore, chances are that sectors which are fairly ability oriented with respect to recruitment and advancement will benefit more fully from the vintage effect, while other sectors which recruit more on a particularistic basis will sacrifice technological progress for the sake of internal peace, which itself is secured by seniority dependent - and hence more fully predictable - promotion. Finally, only the more meritocratic promotion system can prevent the generations born after 1970 from becoming the major victim of unstable renewal.

On the whole, in the presence of a stationary or slow growth economy, unstable fertility produces a certain amount of redundancy and subsequently also a certain amount of blocking. However, those suffering from these effects have been selected in entirely different ways depending on the promotion algorithm. In the more traditional setting, the losers

tend to be those without particularistic connections (i.e. with low investment in identity); in the more meritocratic system losers tend to be among the lower ability groups. In the latter instance, selection is not merely a numerical problem but also a qualitative one. Obviously, these conclusions hold even if renewal is stationary, but waves in the birth stream amplify the effects, especially if technological progress is fast.

4.The path toward the "post-industrial demographic regime"

During the last decade, i.e. from 1974 onward, fertility in the West has shown no traces of an increase which would constitute a continuation of a wavy pattern around the reproduction level. Instead, from Finland to New Zealand, net reproduction rates have been commonly located between 0.6 and 0.8, and if it were not for favourable age structure effects (i.e. the large cohorts born in the 50's and 60's have reached or are reaching the central years of child-bearing), many countries would already be facing negative population growth to-day. Given this demographic trend and in view of the growth of labour saving technology in the secondary sector of the economy, some authors proclaim that a post-industrial society would require a smaller labour force. With population stationarity centered on current population sizes, a major problem of redistribution of available labour would arise, but, if current fertility is projected, also that problem would be alleviated as populations would start shrinking well before the year 2000. As a result, the scenario implies population growth during the industrialization phase and a population decline during the post-industrialization period. In the 1960's this argument was hardly heard, but the continuation of sub-replacement fertility has clearly put it on the agenda. The argument can be stretched even further. To the proposition that at least temporary

hikes in labour demand can occur during this so called "post industrial demogaphic regime", the answers refer commonly to the possibility of recruiting migrant labour from LDC's which will face positive population growth until at least 2050. This would eventually lead to a multi-ethnic melting pot, and judging from the California or Singapore examples, this may not be an unattractive alternative.

What are the implications of these propositions? First, there is a simple mathematical rule operating: for as long as sub-replacement fertility is maintained, growth rates are obviously negative and the end point is inevitably no population at all. Hence, at one point fertility must return to replacement level if obliteration is to be avoided. When should this ideally occur? Clearly, when one decides that the new goal is again a stationary population. The size of this population would unquestionably be smaller than the present size, but how much smaller this ought to be is anybody's guess. In short, off goes the lid of Pandora's box.

Second, as demographers will know, the trajectory to a smaller stationary population is anything but linear with respect to age structure parameters. If we are concentrating on aging, for instance, the proportion of the population aged 65+ in the ultimate new stationary population would be rather similar to that currently existing. If we take the Belgian figures, the stationary proportion would be about 16.8 percent as compared to the 16.3 percent in 1980 for females (see Table II), given that no mortality improvements were to occur. If that condition is released, i.e. when life expectancy would rise to 80 years, the ultimate stationary proportion above age 65 would increase by an extra 3 percentage points. The trajectory to that final stationary level varies, however, rather

Table II : Percentages of the total female population aged 65+ in Belgium in scenarios with unaltered mortality, zero migration and varying fertility

Fertility hypotheses	Year : 1980	2000	2020	2035	2050	Stationary
R = 1.0	16.3	16.0	16.9	18.8	16.0	16.8
Constant birth stream of 109.000 p.a.	16.3	16.2	18.6	22.0	18.6	16.8
						Stable
R = 0.8	16.3	16.9	19.0	23.2	21.9	22.5
R = 1.2	16.3	15.3	14.6	14.8	12.2	12.7

Note : the percentages for the male population are approximately 4.5 percentage points lower.

strongly depending on the fertility hypothesis. If the net-reproduction rate (R) were restored to unity in 1980, the aging bulge starting from 2020 and reaching a peak in 2035 would carry the percentage of 65+ to a maximum of 18.8 (at that time, the large cohorts of the early 1960's will reach the threshold of age 65). Alternatively, if one were to decide on a smaller stationary population of 8.2 million (i.e. 1.5 million less than the present size), a goal that can be reached if the birth stream is maintained at 109.000 p.a. (instead of the 120.000 births p.a. in the last decade and the 130.000 required to establish a stationary size of 9.8 million), the aging bulge will reach a peak in 2035 of 22.0 percent instead of 18.8. The basics are now obvious. The aging bulge for the second quarter of the 21st Century is virtually inevitable, even if the currently most optimistic scenario holds (i.e. R returns fast to unity). Moreover, its size is inversely related to the size of the stationary population ultimately proposed. Finally, it should be noted that the maintenance of a constant birth stream, at whatever level, implies a slow recovery of the net reproduction rate back to unity. The speed required for this recovery is again a function of the ultimate stationary size: the smaller the size, the lower the annual number of births required, te longer the period of subreplacement fertility and the slower the recovery of the reproduction rate.

By comparison to the maintenance of ultimate stationarity at any level, the continued maintenance of subreplacement fertility, e.g. at R=0.8, would not only lead to a population size for Belgium of a mere 5.5 million by 2060 and a growth rate which would by then have stabilized slightly short of -1 percent p.a., but also to a <u>permanent</u> aging level of about 23 percent, instead of the <u>temporary</u> upswing to that level (compare lines 2 and 3 in Table II).

Now, back to the proposition that a post-industrial society would only require a much smaller active population. Incidentally, this is just a starting point of a "borrowed" argument and not necessarily a personal viewpoint. But given this proposition, one can try to examine what could happen if it is coupled to a demographic scenario which maintains present population sizes versus the demographic regime built around a temporarily declining population. In other words, would a population decline be necessary if the proposition of the labour saving capacity of the so called post-industrial era holds?

Much of the answer depends on the use of the surplus labour, or better, of the surplus time espressed in man-hours. In the scenario which maintains the present population size, the surplus time would have to be distributed over the population in what we still call "the active age range". One can in fact add very little of that surplus to the spare time already held by those aged 65+, and that segment of the population would not be increasing by all that much. The degree to which income would be lost (if any) would largely be a function of the productivity increase in the "high tech" sectors and by the capital requirements these sectors need in order to continue their growth and technological advancement. In the scenario leading to a smaller population size, a larger share of the surplus-time will be absorbed by the aging bulge and becomes only available much later, i.e. once the population aged 65+ starts falling back to its stationary level. Moreover, as population size decreases, a given production level would correspond to fewer hours non-working time per capita of the "active" population. In other words, after subtracting the increasing share of those older than 60 or 65, the remainder of the surplus will be less, since fewer workers now have to work more to maintain

production growth. Less spare time, however, may be offset by higher per capita income.

If this exercise has any validity, the demographic choice appears to be largely equivalent to a choice relative to what has to be done with time; and the quanta involved are man-hours and age structure. How this choice is to be made is not the subject of the debate here. All we wanted to indicate is that the expected labour redundancy trait of the post-industrial era does by no means of necessity call for a shrinking population size. In fact, population stationarity at the current level could be more desirable, if it turns out that the surplus of time available to younger age groups is used in a more innovative way than that commanded by the expanding group of the aged. In this sense, time not instantaneously required for production would not be merely lost leasure time, but it could have a longer term productive value as well. However, for this prospect to have any remote chance of realization, the present distribution of working time over the potential labour force has to be altered. Such changes in the organizational parameters of the production system will then be required to a more dramatic extent in the instance of zero demographic growth than in that of negative growth.

5.The problem of the migration valve

To the question of what would happen if an unforseen demand for labour emerges in a population with a shrinking labour force, the answer cannot but go in the direction of opening the immigration valve. The problem with this proposition is that immigration does indeed solve a short term problem, but generates a much more serious long term one. Very often, not only single adults are involved in immigration, but also families.

Demographically speaking it does not suffice to count the immigrants and their children, but one needs also to take their prospective fertility into consideration. Since most immigrant families are made up of fairly young adults (in their twenties and early thirties), a sizeable portion of this fertility occurs in the receiving country and most of it is realized within the decade following the move. As a result, an extra population is generated rather quickly. Moreover, the new generation has much weaker ties with the parental country of origin, and for most return migration is plainly inconceivable. This means no more no less that any opening for immigration involving families can be made only if the host society is willing to develop into a multi-ethnic one and if migrants are selected in function of their capacity to contribute to such a multi-ethnic integration. In this context, nations that grew up from migrant populations, such as the US, Canada or Australia have always had some form of national quota or even recruited on an ethnic and profession specific basis. This is easy to understand: not al groups show the same willingness to blend with the host population and accidents have happened stemming from colonial obligations (e.g. the South Moluccans in the Netherlands) involving groups who develop an anti-integration ideology. Paradoxically as it may seem, the greater the willingness (or the need) to host a newly emerging multi-ethnic society, the greater the need to proceed cautiously and to operate via selection. Short term immigration policies which leave room for false expectations are simply not adequate, even if the host country and the migrants, mostly coming from LDC's, are better off in the short run.

None of this obviously means that the possible emergence of a culturally more varied population in Western Europe should be viewed with reluctance. There are many examples that show that migrants are

self-selective in the sense that they move because culturally and economically they do no longer fit so well in the more traditional and economically less developed region, and therefore display a readiness for adaptation and innovation from which the host region benefits. What we are saying instead is that a government faced with a declining active population runs the risk of being faced with a sudden acute labour shortage and may be tempted again to repeat the trick of the 1960's, without considering the basic societal issue.

6.Conclusions

In societies in which the mere taking of a census is increasingly considered as an infringement on privacy, the role of any governmental interference is limited. This is especially true with respect to a basic variable of demographic renewal, namely fertility. As things are now, the hope for a relatively fast return of fertility to the reproduction level is dim: fertility of married couples may show some signs of recovery (see Willems et.al., 1982, for Belgium, and Wijewickrema, 1983, for other European countries as well), but it turns out that overall fertility is not increasing: larger segments of the younger population are both postponing marriage (preferring cohabitation with lower fertility) and the arrival of a first child. How long this not so familistically oriented period is going to last is anyone's guess. Yet, in the meantime, European nations are one by one reaching the symbolic point of negative population growth and they will experience a major aging wave in the second quarter of the next century. Whether this increase in aging is just a temporary wave or a step toward a much higher long term aging plateau is largely a matter of the prospective level of fertility.

Quite naturally, new opinions emerge in the wake of these developments. Irrespective of whether they see the future of fertility in terms of waves around R=1, or whether they see it as a continuation of sub-replacement level fertility, these opinions have in common that they tolerate and even desire substantive deviations from a stationary pattern.

The opinion expressed in this paper is more sceptical to such stands. First, one must realize that the fertility level in Belgium has been relatively close to reproduction level ever since the 1920's, i.e. after the great fertility transition and that the age structure, despite some distortions, is relatively close to that of a stationary population. Second, continued oscillating fertility can produce major amplifications in the birth stream and consequently also in the age composition of a magnitude that has never been encountered before. Third, once allowance is made for a redistribution of jobs and a reorganization of the total volume of man-hours (i.e. time), we also find that any further implementation of labour-saving technology does by no means imply a need for a temporary shrinking population. Rather, the needs of a so called post-industrial era seem to be far more cast in terms of qualitative requirements and not in quantitative ones. As such, it is a steady flow consisting of top quality labour that is required, not the palliative of a declining one.

The problem with policy aims of this nature in the West, as already indicated, is that they are difficult to implement from the top to the bottom (i.e. from government to population) without touching on availability of contraception. As this kind of interference is clearly ruled out (except with respect to abortion, which has little impact on the overall fertility level in Belgium at any rate), fertility is likely to follow its own course in function of micro-economic and cultural

developments.

Policy interventions with respect to migration are more likely to take place. In the hypothesis of oscillating fertility, one could conceive of a migration valve to fill the gaps. However, immigration of families (or policies with family reunion) produces long term effects which defeat short term economic goals. Once engaged in the process of drawing in migrant populations with their prospective fertility, one must simply face the prospect of a multi-ethnic society. This implies selectivity with respect to migrants and a fully developed integration policy from the start.

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