

Lowest-low fertility and home-ownership regimes

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Introduction

The emergence of ‘lowest-low’ fertility levels in Southern European countries during the 1990s and the expansion to countries of the former Socialist block as well as to South-Eastern Asia has in most of the cases been associated with the particularly difficult circumstances faced by young adults in those societies (see e.g. Kohler et al., 2001; Dalla Zuanna, 2001). More specifically, difficult housing-market entry, and particularly difficult access to home-ownership in societies with a low share of rented housing, might contribute to delayed family formation and to subsequent fertility choices (Castiglioni & Dalla Zuanna, 1994; Krishnan & Krotki, 1993; Mulder & Wagner, 2001; Pinnelli, 1995). Even though it is plausible to think this is the case, to date there has been hardly any empirical research substantiating the links between characteristics of the housing market and fertility choices in developed societies. A small number of studies on this topic from the 1970s and 1980s have been carried out for Britain (Ineichen, 1979, 1981; Murphy & Sullivan, 1985). The results of these studies suggest that some couples postpone marriage or parenthood because they are not able to become homeowners.

The idea that difficult access to home-ownership influences family formation can easily be extended to the macro level of countries: family formation might be hampered (and thus fertility levels lowered) in countries with difficult access to home-ownership. In this paper we take up this idea. We investigate to what extent there is an association between the level of fertility and the organization of home-ownership in western countries. To categorize countries, we distinguish four *home-ownership regimes* based on the share of owner-occupied housing and access to mortgages. Results based on country-level indicators of family formation and housing markets show that lowest-low fertility is mainly found in countries with a combination of 1) high levels of home-ownership and 2) difficult access to mortgages.

Fertility and home-ownership: the micro level

In many countries, the quality of owner-occupied housing is on average better than that of rental accommodation (Megbolugbe & Linneman, 1993). In fact, owner-occupied homes tend to be specifically suitable for families – more so than rented homes (Mulder & Wagner, 1998). This is because of their size, layout and location: Owner-occupied homes are generally larger, more frequently of the single-family type, and more frequently situated in attractive, safe and child-friendly neighborhoods. The benefits of home-ownership, therefore, are greater to families or prospective families than for singles and those couples who do not plan to have children. Furthermore, compared with singles and couples without children, families with children have a smaller probability of moving: they will more frequently have reached stability in their work and household situations. So, their probability of being confronted again with the transaction costs of another move soon after the initial move into home-ownership is also smaller. The downsides of making a long-term

financial commitment to home-ownership are therefore less severe for families and couples, particularly those who consider their financial and family situation stable and secure enough (Clark, Deurloo & Dieleman, 1994; Mulder & Wagner, 2001).

However, it has been argued that home-ownership might *decrease* the probability of having a child. According to Courgeau and Lelièvre (1992), the cost of home-ownership might compete with the cost of rearing children. This cost competition might lead home-owning couples to postpone childbirth or to have fewer children. For Britain, it has indeed been found that homeowners had fewer children and had their children later (Hakim, 2003; Murphy & Sullivan, 1985). At the same time, there is also evidence for Britain suggesting that couples postpone parenthood until they have become homeowners (Ineichen, 1979, 1981; Murphy & Sullivan, 1985). Both these findings seem to be in line with the idea that, in Britain, there is a 'culture' of home-ownership prescribing that families should own their homes (compare Forrest, Kennett & Leather, 1999). According to Kemeny (1981), the great importance attached to home-ownership is typical of the Anglo-Saxon tradition. The distribution of age at home-ownership is also consistent with that: a micro-level analysis of LIS data by Chiuri and Jappelli (2003) shows that the peak of such distribution happens just before retirement in countries such as Italy or Austria, while it takes place ten to fifteen years earlier in the U.S., the U.K., Canada and Australia. Chiuri and Jappelli connect such differences to differences in the availability of credit and in the presence of imperfections in the mortgage market.

It is therefore no surprise that some studies based on micro-level data have found that having a first child leads to a greater likelihood of becoming a homeowner (Deurloo, Clark & Dieleman, 1994, for the United States; Mulder & Wagner, 1998, for West Germany but not for the Netherlands). At the same time, it has been found that couples are more likely to make the transition to parenthood after having become a homeowner (Mulder & Wagner, 2001, for West Germany and the Netherlands).

There is even more evidence for a positive relationship between union formation, and particularly marriage, and the transition to home-ownership (Clark, Deurloo & Dieleman, 1994, and Deurloo, Clark & Dieleman, 1994, for the United States; Clark & Dieleman, 1996, for the United States and the Netherlands; Kendig, 1984, for Australia; Montgomery, 1992, for France; Feijten & Mulder, 2002, for the Netherlands; Mulder & Wagner, 1998, for West Germany and the Netherlands). In some of these studies, the results suggest that the transition to home-ownership is particularly likely for stable couples – those that have existed for a while and are likely to consider having their first child (Kendig, 1984; Feijten & Mulder, 2002). Furthermore, in many of the studies it is found that the transition to first-time home-ownership is likely to coincide exactly with union formation – the first home of the couple is frequently owner-occupied. In such cases, it is not possible to determine whether union formation has just led to home-ownership or whether the opportunity to become a homeowner has accelerated union formation. If the latter is true, we might argue that there is also an indirect impact of home-ownership on fertility, because union formation (and especially marriage) accelerates fertility (Baizán, Billari & Aassve, 2003, 2004). More convincing evidence for such an indirect impact would be derived from a positive effect of home-ownership on union formation among those already living away from the parental home. Such a positive effect was indeed found for the United States by Lloyd and South (1996) and Mulder, Clark and Wagner (forthcoming). However, for the Netherlands Mulder, Clark and Wagner (forthcoming) did not find a significant effect and for West Germany the effect was negative rather than positive.

Fertility and home-ownership on the country level

From the above, some clues emerge about which connection to expect between family formation and home-ownership on the level of countries. The key factor seems to be access to housing. This access seems to be guaranteed best in countries where there is either a sufficiently large affordable rental sector, so that young people are able to make a smooth entry on the housing market in that sector and possibly move on to become homeowners, or where home-ownership is more widespread but easily affordable (that is, where financial markets are less imperfect). In contrast, widespread home-ownership in combination with a strong norm towards home-ownership and/or a low affordability or accessibility of home-ownership might lead couples and prospective couples to be severely restricted in their opportunities to form marital or non-marital unions, have children and even to leave the parental home. This restriction, in its turn, might contribute to lowest-low fertility (see also Dalla Zuanna, 2001, for Italy).

Home-ownership regimes and fertility

In several studies, the differences between countries in the process of household and family formation by young adults have been linked to welfare regimes. Some of these studies use Esping-Andersen's (1999) classification of welfare regimes into Social-Democratic, Continental European, Liberal Market and Southern European regimes (Aassve, Billari, Mazzucco & Ongaro, 2002; Mulder, Clark & Wagner, 2002, forthcoming). Vogel (2002) used a classification of European countries according to 'welfare mix', distinguishing between Nordic, Central and Southern clusters. In welfare research, housing is, as Kemeny (2001) puts it, 'strikingly absent'. This is remarkable, because it can be argued that housing is one of the pillars under the welfare state, besides social security, education and health care (Kemeny, 2001; Torgersen, 1987).

Next to the literature on welfare regimes, there is also quite an extended literature on housing systems. Just like comparative welfare research has led to typologies of welfare regimes and welfare systems, comparative housing research has led to a number of typologies of housing systems (for an overview, see Kemeny & Lowe, 1998). Most of these typologies have been developed separately from the welfare regimes typologies. Moreover, they have not been designed to serve as an explanation for the behavior of households in quite a different domain than housing. In fact the research in which these typologies have been developed has been criticized for restricting attention to detecting and describing typologies (Kemeny, 2001).

For the purpose in this paper, we need a categorization of countries according to how well their housing markets, and particularly the organization of home-ownership allow a smooth first entry of young people, either on their own or as couples, and a smooth first part of their housing careers. As argued above, the categorization should be based on the existence of a sufficiently large rental sector and on the accessibility of owner-occupied housing. We propose to distinguish four *home-ownership regimes*, based on the share of owner-occupied housing and the access to owner-occupied housing, indicated by the access to mortgages. If mortgages are widely accessible, they are apparently a common way of home-ownership finance. If they are not, home-ownership is most likely financed by savings, family help or inheritance. Evidence that inter vivos intergenerational transfers speed up the

transition to home ownership in societies with mortgage market imperfections is provided for Italy by Guiso and Jappelli (2002).

Our classification is based on a set of statistical indicators. We show such indicators in Table 1 for 16 countries, together with indicators for family formation and economic circumstances. [Note: for the definitive version of the paper, Table 1 will be extended with more complete information and information for more countries. Partial information for Iceland: TFR 1.93, percentage homeowners 78. Ireland: TFR 1.98, percentage homeowners 80 in 1996 (United Nations, 2002; Scanlon & Whitehead, 2004; Doling, Ford & Horsewood, 2003). We do not have the mortgage loan to GDP ratio for Iceland and Ireland, and neither for Greece, but from other sources we have derived that Greece has a low debts/GDP ratio (Earley, 2004), Iceland has a high loan-to-value ratio (Scanlon & Whitehead, 2004) and the same seems to hold for Ireland (Doling, Ford & Horsewood, 2003).]

The four regimes

In this paper, we use home-ownership regimes for the purpose of helping interpret cross-national differences in fertility. More specifically, we focus on differences between lowest-low and higher fertility, and we emphasize the centrality of institutions related to the housing market in the explanation of such differences. This provides a different approach to the explanations of the difference between low and very low fertility related to its institutional determinants (McNicoll, 1980) that have been postulated so far. For instance, McDonald (1997) points to *gender equity*: the combination of a conflict or inconsistency between high gender equity in individual-oriented social institutions and sustained gender inequity in family-oriented social institutions.

We have determined the boundaries between what we denote as ‘high’ and ‘low’ levels of home-ownership and between ‘mortgage finance’ and ‘savings finance’ with an open eye to family formation indicators. We denote levels of home-ownership under 75% as low levels. We regard mortgage loan/GDP ratios of under 20% as an indicator of difficult access to mortgages.

Low level, mortgage finance: career home-ownership regime

In this regime, home-ownership is by no means universal. Mortgages are widespread and a major source of home-ownership finance. For a majority of people, home-ownership is not the first housing tenure after leaving the parental home. Rather, the owner-occupied home is a step in the housing career for those with sufficient and stable incomes. Most likely, owning is not considered normative and renting is considered an acceptable alternative, not only for singles and childless couples, but also for families. If, however, there is a strong norm towards home-ownership for families, some couples might postpone parenthood until they have become homeowners or even experience difficulties combining home-ownership with parenthood.

Countries with this home-ownership regime are Denmark, France, Germany, the Netherlands, Sweden, the United Kingdom and the United States. Belgium is on the margin, with a rather high level of home-ownership and a rather low debts/GDP ratio. These countries range from very low (but not lowest-low; Germany) to relatively high fertility (United States).

Low level, savings finance: elite home-ownership regime

Like in the career regime, home-ownership is not universal. The difference is that mortgages are not widely available, so housing finance has to come from savings, family help or inheritance. Home-ownership is therefore likely restricted to the better off. Renting is an acceptable alternative to owning. A country with this home-ownership regime is Austria. Not surprisingly, Austria is among the countries with the lowest levels of home-ownership (it is the second lowest on the list of countries, after Germany). It has very low fertility levels (although not lowest low).

High level, mortgage finance: easy home-ownership regime

In this regime, a high level of home-ownership goes together with a wide availability of mortgages. Apparently, this combination does not hamper family formation. The two countries in this regime (Ireland and Iceland) have TFRs that are the highest in Europe.

High level, savings access: difficult home-ownership regime

This home-ownership regime combines a high share of owner-occupation with low access to mortgages. Access to home-ownership is difficult because it depends on personal savings, family help or inheritance. At the same time, the rental sector hardly forms a suitable alternative for prospective families. Home-ownership is not only the norm, but also almost the only way of obtaining housing for families. This regime is particularly associated with difficult housing-market entry and is, therefore, unfriendly to leaving the parental home and family formation (compare Dalla Zuanna, 2001). Intergenerational transfers are essential, although not a solution for the imperfection of the mortgage market (Guiso and Jappelli, 2002). Countries with this regime are Italy, Spain and Greece. These countries have lowest-low fertility. They are also among the countries with the highest percentages of young people living in the parental home (see Table 1).

An interpretation: welfare regimes, familism, home-ownership

We have identified one home-ownership regime that is arguably particularly unfriendly to leaving the parental home and family formation. The countries in this regime are indeed characterized by lowest-low fertility and late home-leaving. This does not mean, however, that differences between countries in home-ownership regimes cause differences in leaving home and fertility. The association might be spurious or might be caused by a different factor. Alternatively, difficult home-ownership, late home-leaving and lowest-low fertility in Southern European countries may all be viewed as parts of one complex system: the Southern European welfare regime (Esping-Andersen, 1999), the 'strong family system' (Reher, 1998) or 'familism' (Dalla Zuanna, 2001). In this system, the home-ownership regime is unfriendly to family formation, but at the same time there is apparently a low demand for rental housing or for mortgage finance.

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Table 1. Family formation, housing and economic indicators for 16 countries

	Family formation				Housing			Economy	
	Mean age at marriage, women	Mean age of mother at first childbirth	TFR	% Females aged 18-34 living in the parental home ^a	% home-owners ^b	Mean house price (€ 1000s) ^c	Outstanding mortgage loans / GDP ^d	GDP per capita	% un-employment age 15-24
Austria	27.2	26.4	1.36		53.7		4.2	128.2	5.3
Belgium	26.3	27.6 ^e	1.66		72.9	89	20.1	117.2	16.9
Denmark	29.5	27.7	1.77	12.5	65.0	154		127.1	5.3
France	28.0	27.9	1.88 ^f	22.4	62.7	116	22.0	114.3	
Germany	27.0	28.2	1.38 ^g	20.4	43.4		28.9	112.3	
Greece	26.6	27.3 ^g	1.29 ^g	29.5	83.6			72.7	28.0
Italy	27.4		1.24 ^g	55.3	75.5		5.5	111.5	30.5
Luxembourg	27.1	28.4	1.76		70.8	173	25.6	219.1	
Netherlands	27.8	28.6	1.72	15.9	54.4	223	43.3	121.9	5.4
Norway	27.3 ⁱ	26.9	1.85		77			161.9	8.8
Portugal	25.3	26.5	1.55	47.1	65.0			77.5	8.4
Spain	27.8	29.1	1.24 ^f	46.2	85.3		15.0	91.9	25.6
Sweden	30.1	27.9	1.54		59.9		53.5	120.1	
Switzerland	27.9	28.7	1.50		34.6				
United Kingdom	27.2	29.1	1.64	12.6	70.6	83	51.9	114.3	12.6
United States	24.8 ^j	24.9	2.06		67.5 ^k	179 ^l	43.6	155.7	

2000. Source: Eurostat. Except:

^a 1994, Aasve et al. (2002)

^b Includes co-operative ownership

^c 2002, European Union (2003)

^d 1996, Chiuri & Jappelli (2000)

^e 1997

^f Provisional figure

^g Estimated figure

^h 1999

ⁱ Statistics Norway

^j 1995, Median age

^k 2000, 4th quarter, US Census Bureau

^l 2002, Federal Housing Finance Board

