

Home-ownership and family formation

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NOTE: This version has not been corrected by a native speaker of English. My apologies for errors and awkward phrasing.

Abstract

Family formation and home-ownership are closely connected to each other in Western countries. From most research on the transition to home-ownership, one gets the impression that the association between family formation and home-ownership is positive: Family formation seems to speed up the process of acquiring home-ownership in several countries. However, it has also been argued that there might be a *negative* association between home-ownership and family formation at the individual or household level, because the cost of home-ownership might compete with the cost of rearing children. And it has also been found that those countries in Europe with the highest levels of home-ownership are also those with the lowest fertility. The aim of this paper is to reconcile these seemingly contradicting findings on the association between home-ownership and family formation by developing a theoretical argumentation comprising both the micro level of individuals and households and the macro level of countries.

1. Introduction

To form a family, people need suitable housing. As obvious as this may be, the availability and accessibility of suitable housing are not among the most extensively discussed issues in the literature on family formation. Yet, housing issues might well be important in understanding the differences between countries in the timing of family formation and the number of children people have. One aspect of housing seems to be particularly relevant to family formation: private home-ownership.

Family formation and home-ownership are closely connected to each other in Western countries. It has repeatedly been found, for example, that the transition to first-time home-ownership is frequently synchronized with marriage, is often made in anticipation of parenthood, and is rare among singles. From most research on the transition to home-ownership, one gets the impression that the association between family formation and home-ownership is positive: Home-ownership is strongly associated with marriage and, in some countries, family formation also seems to speed up the process of acquiring home-ownership (Deurloo, Clark & Dieleman, 1994, for the United States; Mulder & Wagner, 1998, for West

Germany). At the same time, it has also been found that home-ownership speeds up the transition to parenthood in West Germany and the Netherlands (Mulder & Wagner, 2001).

In the literature, however, it has also been argued that there might be a *negative* association between home-ownership and family formation at the individual or household level. Courgeau and Lelièvre (1992) for example argue that the cost of home-ownership might compete with the cost of rearing children. This competition might lead to postponement of childbearing among those who attach a great importance to acquiring home-ownership. For Britain, it has indeed been found that home-ownership seems to be associated with low rather than high fertility (Hakim, 2003; Murphy & Sullivan, 1985).

Yet another story about the association between home-ownership and family formation may be told if we concentrate on the macro level of countries, rather than the micro level of individuals and households. The countries in Europe with the highest levels of home-ownership (Italy, Greece and Spain, where the percentage homeowners is over 75 percent) are also those with the latest timing of leaving the parental home, union formation and parenthood and the lowest fertility. This finding suggests that a high level of home-ownership might lead to difficulties for young people to start their independent household careers and form unions and families (compare Pinnelli, 1995).

The aim of this paper is to reconcile the seemingly contradicting empirical findings on the association between home-ownership and family formation from existing studies by developing a theoretical argumentation comprising both the micro level of individuals and households and the macro level of countries. To that end, I first sketch a theory of the transition to home-ownership in the life course, with special attention to differences between countries. Secondly, I sketch the theoretical arguments for a connection between family formation and home-ownership both on the micro level of individuals and households and on the macro level of countries. Next, I give an overview of existing empirical evidence on this connection, again both on the micro and the macro level. The paper ends with a discussion.

2. A theory of the transition to home-ownership

A theory of the transition to home-ownership has been put forward in earlier work by Mulder & Wagner (1998). Their theory is built on the premise that becoming a homeowner is preferred when the balance between the benefits and costs of owning exceeds that of not owning. Whether a preference for owning can be realized depends on the availability of resources. Both the benefits and costs relative to renting and the availability of resources change according to contexts. Their work can be used to depart from for this paper, but adaptations are needed to focus more explicitly on differences between countries and the role of family formation.

The benefits and costs of home-ownership

Becoming a homeowner is, in Western societies, a rather important goal in many people's lives (Michelson, 1977; Lassarre, 1986; Saunders, 1990). This has to do with three major benefits of home-ownership. First, the quality of owner-occupied housing is on average better than that of rental accommodation (Megbolugbe & Linneman, 1993). Owner-occupied homes are generally larger, more frequently of the single-family type, and more frequently situated in attractive neighborhoods. Secondly, an owner-occupied home not only provides housing but also serves as an investment and helps in the accumulation of wealth (Megbolugbe & Linneman, 1993). For many, a home is their major form of savings (Kendig, 1984). Thirdly,

with home-ownership, people gain control over their housing situation because they are freer than renters in making changes to their homes (Helderman, Mulder & Van Ham, 2004).

The benefits of home-ownership come with financial and non-financial costs. The financial costs are the costs of a down payment, the out-of-pocket costs of mortgage interest and repayments and maintenance of the home and the transaction costs of a real estate agent, notary transfer and transfer tax. Particularly in the first few years after buying a home, the cost of being a homeowner is often considerably higher than renting even with comparable housing quality (Mulder & Wagner, 1998). A non-financial transaction cost is associated with the fact that, if they plan to move, homeowners not only have to find new housing but also have to sell their current home (Helderman, Mulder & Van Ham, 2004). Another important non-financial cost is the risk one takes by becoming a homeowner. Unlike renting, home-ownership is accompanied by a long-term financial commitment. Changes in income or household situation may lead to difficulties fulfilling this commitment. Furthermore, one can never be certain the home will retain its value. It should be stressed, however, that making a commitment to home-ownership is not just a cost; it is desirable to many people for investment reasons (Helderman, Mulder & Van Ham, 2004) and because of the stability to which it leads (Feijten, 2005).

Differences between countries in benefits and costs. There are various reasons why home-ownership might be more desirable in some countries than in others. A crucial difference in this respect is the extent to which rental housing forms a high-quality alternative for owner-occupied housing. This difference has to do with the composition of the housing stock (see below under 'the role of housing supply'). There may also be differences in the relative costs of owning versus renting. Many of these have to do with differences in financial practices and government policy.

Mortgage banks in different countries differ in the amount of down payment they usually require. For example, mortgage banks in the Netherlands frequently agree to mortgages of the house price or slightly higher, whereas the amount of down payment required to obtain a mortgage in Germany is 20 to 30 percent (Mulder & Wagner, 1998; Tomann, 1996). Italy is exceptional with high down payments, as can be seen from the low average loan-value ratio in this country (the amount of mortgage loan divided by the value of the house: 40 percent in Italy, against 100 in the United Kingdom and 70-80 in France; Stephens, 1997). There are also differences in practices with regard to the fixation of mortgage interest rates. Whereas annually fluctuating rates are common in the United Kingdom, it is much more common in the Netherlands to agree rates that are fixed for five, ten or twenty years. This difference leads to a difference in the risk associated with changes in interest rates.

Private home-ownership tends to be viewed as positive by national governments (Forrest, 1983). Governments differ, however, in the extent to which they actually stimulate home-ownership or maintain taxation principles that work out favorably for homeowners. As shown by Haffner and Oxley (1999) and Haffner (2002), there are major differences between European countries in the tax treatment of owner-occupied housing. The Netherlands forms an example of a country where the tax treatment of owner-occupiers is more favorable in comparison with landlords. Even though the tax deductibility of the interest of personal loans has been abolished in the Netherlands, mortgage interest has been exempted from this change and is still fully tax deductible for a maximum period of 30 years (Haffner, 2002). Mortgage banks have responded to this tax advantage by creating new mortgages designed to make optimal use of the tax relief for homeowners (Mulder, 2004). At the same time, there are also differences between countries in subsidies for renters and landlords. As Haffner and Oxley (1999) have shown, the differences among countries in subsidies for owners and renters are subtle and complex and it is far from easy to compare countries in the ultimate effect of the

various subsidies and tax benefits on the relative costs of owning and renting. Furthermore, the transaction costs may differ substantially according to local rates for real estate agents and notaries and whether transfer tax is levied.

In response to the actual benefits and costs of owning versus renting, people in different countries may differ in the extent to which they view home-ownership as a desirable goal. Elsewhere I have argued that there is no such thing as a universal preference for home-ownership, but rather that tenure preferences are shaped to a large extent by financial and housing market circumstances (Mulder, 2004). Two pieces of empirical evidence, both for the Netherlands, support this argument. Elsinga (1995) studied motives for home ownership and found that financial advantages (notably tax advantages) were crucial to choosing to buy a home; much more so than the idea that owning is intrinsically more preferable than renting. Another indication for an important role of financial and housing market considerations in preferences for home-ownership is the finding by Dieleman and Everaers (1994) that, over the 1980s, tenure preferences changed in accordance with booms and busts on the market for owner-occupied housing. Still, it is possible that differences in preferences for home-ownership also exist owing to long-standing traditions and beliefs. From analyses of tenure choice and housing demand in the USA and West Germany, Börsch-Supan (1985) found some evidence suggesting that there is an 'American dream' for home-ownership which is not shared, or not as strongly, by West Germans. According to Kemeny (1981), the great importance attached to home-ownership is typical of the Anglo-Saxon tradition.

Resources needed for home-ownership

Obviously, to become a homeowner, it is necessary to have a sufficiently high and stable income. Besides income, a certain amount of wealth is nearly always needed as well, to cover the costs of the down payment and the decoration and furnishing of the home. This might be a person's or couple's own wealth, or wealth coming from the parents or other third parties. In the empirical literature it is usually found that wealth and income are associated with the propensity to own (Mulder & Wagner, 1998; Werczberger, 1997).

Differences between countries in the need for and availability of resources. How much income and wealth is needed to become a homeowner depends on the out-of-pocket and transaction costs of home-ownership, the ease at which mortgages are obtained (and the amount of down payment needed), and the availability of government subsidies or tax benefits. All these factors differ between countries (see Benefits and costs section above). An indicator of the ease at which mortgages are obtained, and therewith accessibility of owner-occupied housing, is the total amount of outstanding mortgage loans as a share of the Gross Domestic Product. Where this share is large, mortgage loans form an important instrument in housing finance. The range of this indicator is large (Table 1), from 4.2 percent in Austria to 53.5 percent in Sweden. Remarkably, low mortgage loans/GDP ratios exist both in countries with a low percentage of homeowners (Austria) and in countries where home-ownership is widespread (Italy, Spain). There are also differences in the availability of resources: The GDP per capita, but also youth unemployment, differ markedly between western countries (see Table 1).

[Table 1 about here]

The role of inter-generational transfers in home-ownership (gifts from parents to children) may very well differ according to tax systems for inheritance and gifts. As Mulder and Wagner (1998) have shown, the German tax system is considerably friendlier to children inheriting or receiving gifts from parents, particularly if these gifts are given to facilitate the

child's home-ownership, than the Netherlands system. In accordance with this difference, the association between parents' and their children's home-ownership was found to be stronger in West Germany than in the Netherlands.

The role of housing supply in attaining home-ownership

A crucial factor in whether people are able to, or feel obliged to, become homeowners is the supply of owner-occupied housing compared with that of rental housing – not only the total supply, but also that in different sectors of the market (cheaper and more expensive dwellings; smaller and larger dwellings; single-family homes and apartments). Another important factor is the accessibility of the various housing sectors. The social rental sector, for example, is generally only accessible to low-income households.

Differences between countries in housing supply. There are remarkable differences between western countries in the proportion of home-owning households, ranging from a substantial minority to a vast majority (see Table 1). Despite the positive association between income and wealth and home-ownership on an individual level, it is not necessarily the richest countries where home-ownership is most widespread (Stephens, 1997). According to Werczberger (1997), for the twelve countries that were members of the European Union in the early 1990s plus Switzerland, the correlation between GDP per capita and the home-ownership rate was negative (-0.65) and significant in 1990. It should be noted that, for the countries in Table 1, the correlation between these same indicators in 2000 is also negative, but weak and insignificant.

3. The connections between family formation and the transition to home-ownership

Theoretical arguments for a connection between family formation and home-ownership

A major reason why family formation, or plans to form a family, would lead to a transition to home-ownership is the fact that 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. 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.

The financial costs of home-ownership are easier to bear for couples than for singles, because they can pool resources. This is particularly true for couples who earn two incomes and who do not (yet) have to bear the cost of 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).

The arguments above demonstrate that family formation, or plans to form a family, might increase the benefits of home-ownership and decrease the cost. Family formation may therefore lead to home-ownership. But possibly, home-ownership might also facilitate family formation. Access to suitable housing might lead couples to have their children earlier or, the other way around, couples might delay childbearing until they have found suitable housing (Castiglioni & Dalla Zuanna, 1994; Krishnan & Krotki, 1993; Pinnelli, 1995).

Yet another possibility is that home-ownership might *decrease* the probability of having a child. As argued by 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.

Arguments for differences between countries in the connection between family formation and home-ownership

In some countries, there might be specific circumstances making home-ownership particularly attractive to families rather than non-family households. Germany, for example, has subsidies for homeowners that are higher for those with children than those without (Mulder & Wagner, 1998). But otherwise, the affordability and accessibility of home-ownership, and the degree to which these change over the life course, will be major determinants of the shape of the connection between family formation and home-ownership.

Assuming that many couples prefer to secure suitable housing before they have their first child rather than having to move after their child is born, one can expect favorable economic and housing-market circumstances and a greater accessibility and affordability of home-ownership to be associated with a greater propensity of couples to become homeowners before having their first child rather than afterwards. The timing of home-ownership with respect to family formation will also differ depending on how much the affordability of home-ownership increases with age. In any country, home-ownership will be more easily afforded after some years of saving. But the amount of savings needed differs with the percentage of down payment required to obtain a mortgage loan. It also matters whether homeowners enjoy tax benefits and how these benefits are organized. In Germany, for example, the *Bausparen* system encourages saving for the own home, whereas in the Netherlands, full tax deductibility of mortgage interest and mortgage guarantees for cheaper owner-occupied dwellings encourage borrowing.

Whether lack of access to home-ownership leads to a postponement of family formation will depend on how necessary people think it is to become homeowners before they form families. If the necessity to be a homeowner before forming a family is strong, one might expect difficulties in acquiring home-ownership to lead to postponement of family formation. This necessity will be particularly great in countries where rental housing is hardly an alternative, for example if rental dwellings are expensive or in short supply.

The perceived necessity to be homeowner before forming a family might also have to do with strong norms existing in particular countries. A British respondent cited by Forrest, Kennett and Leather (1999: 97) said: “There was very much that culture if you get married you buy a house and if you can’t afford to buy a house then you should wait until you can.” The existence of such a ‘culture’ seems more likely in countries where home-ownership has traditionally been widespread than in countries where this is not the case (Mulder & Wagner, 2001).

Paradoxically, a strong necessity to become a homeowner before forming a family might also lead to a negative association between home-ownership and fertility. Couples who feel obliged to buy a home might devote such a large share of their resources to home-ownership that the cost of children becomes difficult to bear.

Macro-level connections between family formation and home-ownership

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 entrance on the housing market in that sector and possibly move on to become homeowners, or where home-ownership is more widespread but easily affordable. In contrast, widespread home-ownership in combination with 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. The impression arising from the housing market indicators in Table 1 is that this situation may well exist in Italy and Spain. These countries have the greatest proportion of homeowners of all countries listed, but also a low ratio of mortgage loans to GDP, indicating difficult accessibility of home-ownership.

4. Evidence on the connections between home-ownership and family formation

Micro-level evidence

It has repeatedly been found that couple formation, and particularly marriage, is positively associated with 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 (Kendig, 1984; Feijten & Mulder, 2002). For some countries, it has also been found that transitions from couple to family speed up the process of acquiring home-ownership (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 home-ownership speeds up the transition to parenthood in West Germany and the Netherlands (Mulder & Wagner, 2001). Most of this research focuses on the immediate connection between family formation and home-ownership: the extent to which transitions to marriage and parenthood are associated with transitions to home-ownership. But the connection is also visible when a long-term perspective is employed. Among a series of birth cohorts in West Germany and the Netherlands, the proportion of people who have made the transition to marriage by age 30 and 35 was consistently greater for those who have become homeowners by those ages than for those who have not (Table 2). This is also true of the transition to parenthood (Table 3). These differences between owners and non-owners are substantial, frequently amounting to ten percentage points or more.

[Table 2 about here]

[Table 3 about here]

A difference in the timing of first-time home-ownership was found between West Germany and the Netherlands: whereas Germans were particularly likely to become homeowners after the birth of a first child or around the birth of a second child, the transition to home-ownership frequently took place among married couples without children in the Netherlands (Mulder & Wagner, 1998). This difference was in line with differences in housing markets, financial systems and government policy.

For Britain, research from the 1970s and 1980s has suggested that some couples postpone marriage or parenthood because they are not able to buy a home (Ineichen, 1979,

1981; Murphy & Sullivan, 1985). Another finding for Britain was that homeowners had fewer children and had their children later (Hakim, 2003; Murphy & Sullivan, 1985). This finding is opposite to that for West Germany and the Netherlands (see above). Difficulties among homeowners to bear the cost of children might well explain this negative association between home-ownership and fertility found for Britain.

Macro-level evidence

Even though the connection between home-ownership and family formation is positive in many countries, no significant associations on the country level are found between the percentage homeowners and family formation indicators (see Table 4). This might have to do with the small number of observed countries, but the correlations are not only insignificant but also low. The only correlation that is higher and anywhere near significant is that between the percentage homeowners and the share of young people still living in the parental home ($r = 0.56$, $p = 0.15$). This finding is consistent with the idea that high levels of home-ownership might lead to difficulties in leaving the parental home.

[Table 4 about here]

Although no significant correlations are found between the percentage homeowners and family formation indicators, it is striking that the three countries with the greatest share of homeowners (Spain, Greece and Italy, with 85.3, 83.6 and 75.5 percent homeowners respectively; see Table 1) also have the lowest Total Fertility Rates (1.24 children per woman for Italy and Spain, 1.29 for Greece). They are also among the countries with the highest share of young people still living in the parental home (on this list, Greece is fourth after Italy, Portugal and Spain). Among countries with high TFRs (over 1.70) for which housing market indicators are available (the United States, Denmark, Luxemburg and the Netherlands), the proportion homeowners varies substantially – hence the weak correlation between the TFR and this proportion.

A significant negative correlation is found between the ratio of outstanding mortgage loans to GDP and the percentage of women aged 18-34 living in the parental home. Since a low mortgage loans/GDP ratio indicates difficult access to mortgages, this finding forms another indication that difficult access to owner-occupied housing affects leaving the parental home. A significant positive correlation (at the 10% level) is found between this ratio and the TFR. This might form an indication that difficult access to owner-occupied housing is indeed also associated with lower fertility.

It should be noted that Italy and Spain are among the three countries with the lowest mortgage loans/GDP ratio. The third is Austria. Austria, however, has a much lower proportion of homeowners than Italy and Spain, so rental accommodation is a much more feasible alternative in that country. For Greece, we have no comparable figure on the ratio of outstanding mortgage loans to GDP, but a different source using different a definition (total rather than outstanding debt; Earley, 2004) lists Greece as having a low debts/GDP ratio: lower than Spain and just above Italy.

It is tempting to speculate that the findings for Italy, Spain and Greece are a sign of a connection between difficult access to housing and difficulties in family formation among young adults in these countries. It should be stressed that, at the same time, young people in Italy, Spain and Greece also face difficult economic circumstances, indicated by high youth unemployment and a moderate GDP per capita (see Table 1). These difficult economic circumstances could in themselves lead young people to postpone marriage and family formation (compare Oppenheimer, 1988) and form an alternative explanation of late marriage

and low fertility. Alternatively, difficult economic circumstances and difficult access to housing caused by a high level of home-ownership might reinforce each other's impact on young people's family formation behavior.¹ Finally, it is also possible that the association is caused by pure coincidence. Because of the small number of countries for which a combination of a high proportion of homeowners and an indicator of low affordability was found, there is no way of testing statistically whether this combination is significantly associated with high fertility. Furthermore, Spain, Italy and Greece are similar in more respects than housing-market or economic indicators. They are all Southern-European welfare regimes (Esping-Andersen, 1999) with low levels of state support for young people and a strong focus on support from the family. In Italy, for example, only five percent of children aged 0-2 are enrolled in public-funded daycare compared with 20 percent in Belgium and France and 31 percent in Sweden (Bosveld, 1996).

5. Discussion

In this paper I explored the connections between home-ownership and family formation on the micro and macro level by developing a theoretical argumentation and reviewing empirical evidence. It has become clear that the connection between home-ownership and family formation is by no means straightforward.

Because the benefits of home-ownership are greater to couples and families than non-family households and the costs are borne more easily by couples, a positive connection between home-ownership and family formation on the level of households can in principle be expected. Such a positive connection was found for several countries. However, in the UK, where many feel the necessity to become homeowners before they form families, a negative connection was found, probably because the cost of home-ownership competes with the cost of rearing children.

On the macro level of countries, it is theoretically plausible that a combination of a high proportion of homeowners and a low affordability of home-ownership leads to difficulties for young people to form families. Indeed, the three countries for which a combination of a high percentage of homeowners was found in combination with a low mortgage loans/GDP ratio (Spain, Italy and Greece) were also the three countries with the lowest fertility. It should be stressed, however, that this evidence for the macro level of countries is rather weak, because it is based on a very limited number of countries that are also similar in other respects.

Still, there is enough evidence supporting the idea that there is a close connection between home-ownership and family formation. That observation, combined with the findings

¹ In fact, the significant correlation between youth unemployment and the percentage of owner-occupied homes (Table #1) provides modest support for the so-called Oswald's thesis. In a never published paper, Oswald (1999) argued that home-ownership impedes labor mobility and hence, that high levels of home-ownership are associated with high unemployment. On the level of countries, he indeed found a positive association between the proportion of home-owners and unemployment; Van Leuvensteijn and Koning (2004) cite more evidence for such an association on the level of countries. They also found that, within one country, homeowners were by no means less likely to change jobs or more likely to be unemployed. This contradiction between macro and micro finding once again illustrates that an association between two phenomena on the macro level of countries may well go together with an opposite association on the micro level of individuals or households.

for Spain, Italy and Greece, is intriguing. It leads me to a plea for more attention to home-ownership, and housing issues in general, than has been usual thus far in research into family formation.

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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	Mean house price (€ 1000s) ^b	Outstanding mortgage loans / GDP ^c	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 ^d	1.66		72.9	89	20.1	117.2	16.9
Denmark	29.5	27.7	1.77	12.5	65	154		127.1	5.3
France	28.0	27.9	1.88 ^e	22.4	62.7	116	22.0	114.3	
Germany	27.0	28.2	1.38 ^f	20.4	43.4		28.9	112.3	
Greece	26.6	27.3 ^g	1.29 ^f	29.5	83.6			72.7	28.0
Italy	27.4		1.24 ^f	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 ^h	26.9	1.85					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 ^e	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	1.5						
United Kingdom	27.2	29.1	1.64	12.6	70.6	83	51.9	114.3	12.6
United States	24.8 ⁱ	24.9	2.06		67.5 ^j	179 ^k	43.6	155.7	

2000. Source: Eurostat. Except:

^a 1994, Aasve et al. (2002)

^b 2002, European Union (2003)

^c 1996, Chiuri & Jappelli (2000)

^d 1997

^e Provisional figure

^f Estimated figure

^g 1999

^h Statistics Norway

ⁱ 1995, Median age

^j 2000, 4th quarter, US Census Bureau

^k 2002, Federal Housing Finance Board

Table 2. Percentage having made the transition to marriage by age 30 and 35 according to home-ownership behaviour, West-German and Dutch birth cohorts

Age	1920 a		1930 a		1940 a		1950 a		1960 a,b	
	W-G	NL	W-G	NL	W-G	NL	W-G	NL	W-G	NL
All respondents	75.7	72.5	85.1	79	87	87.8	79	83.9	56.8	63.8
	88.6	84.7	93.8	89.9	92.6	94.1	82.7	88.5	--	--
No transition to home-ownership	72.9	73.6	80.8	76.1	82.2	82.5	72.4	76.6	50.2	51.9
	85.8	85.3	90.1	88.2	88.2	89.4	76.1	81.9	--	--
Transition to home-ownership	93.3	-	96.4	98.2	96.3	99	91.9	94	74.3	80.9
	97.4	-	99.6	98	97.6	99.3	93.2	94.2	--	--

a The Netherlands: cohorts 1900-24, 1925-34, 1935-44, 1945-54, 1955-64

b For those who had not reached age 30 at interview: age at interview

- Fewer than 30 home-owners, -- age 35 not reached at date of interview

Sources: West-Germany: German Life History Study (Mayer & Brückner, 1989);

Brückner, 1993; Brückner & Mayer, 1995). The Netherlands: SSCW survey (ESR/STP, 1992)

and Netherlands Family Survey 1993 (Ultee & Ganzeboom, 1993).

Table 3. Percentage having made the transition to parenthood by age 30 and 35 according to home-ownership behaviour, West-German and Dutch birth cohorts

Age	1920 a		1930 a		1940 a		1950 a		1960 a,b	
	W-G	NL	W-G	NL	W-G	NL	W-G	NL	W-G	NL
All respondents	66.2	57.2	70.4	60.6	76.4	73.6	62.1	64.3	42.3	45.2
30	81.3	77.4	86	80.4	85.4	86.4	67.7	77.5	--	--
No transition to home-ownership	63.7	57.6	65.1	56.5	71.2	69	55.3	61.9	36.1	39.2
35	78.7	79.4	83.5	77.8	81.1	83.6	60	71.4	--	--
Transition to home-ownership	82	-	84.3	83.9	86.6	83.4	75.4	67.8	58.8	53.9
35	89.2	-	90	88	90.5	89.2	80.1	83.3	--	--

a. The Netherlands: cohorts 1900-24, 1925-34, 1935-44, 1945-54, 1955-64

b. For those who had not reached age 30 at interview: age at interview

- Fewer than 30 home-owners, -- age 35 not reached at date of interview

Sources: see Table 2

Table 4. Pearson correlations between family formation, housing and economic indicators of Table 1

	Age at marriage	Age at first child	TFR	% in parental home	% home-owners	House price	Mortgage / GDP	GDP
Mean age of mother at first childbirth	0.55 **							
TFR	-0.13	-0.37						
Females aged 18-34 living in the parental home	-0.46	-0.33	-0.68 **					
Percentage home-ownership	-0.15	0.11	-0.21	0.50				
Mean house price	0.02	-0.22	0.37	-0.02	-0.67			
Outstanding mortgage loans / GDP	0.16	0.09	0.52 *	-0.90	-0.21	0.22		
GDP per capita	0.02	-0.09	0.57 **	-0.56	-0.16	0.41	0.10	
Unemployment age 15-24	-0.16	0.31	-0.74 **	0.64	0.88 ***	-0.84	-0.43	-0.51