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#### Risk Attitudes and the Choice for Parenthood

#### Introduction

The transition to parenthood and the decisions associated with it are among the most momentous that people make in the course of their lives. What has been widely neglected in past research on fertility is the question of whether and how individual risk attitudes<sup>1</sup> affect the decision to postpone or even forego parenthood. The empirical analysis presented here uses data from the Socio-Economic Panel Study (SOEP) to compare the transition to parenthood in East and West Germany. The comparison is motivated by two general ideas: 1) The welfare states of East and West Germany differed in their influences on the emergence of individual risk attitudes, with the GDR providing men and women with a more clearly structured life course and a lower level of exposure to economic risks and uncertainty than the FRG. 2) The sweeping societal changes that followed German reunification were accompanied by increased exposure to risks in private and working life. This led some individuals to modify their fertility behavior in line with their assessment of objectively given risks, depending on their individual risk tolerance. The basic assumption underlying this analysis is that when faced with economic uncertainty, risk-averse individuals are likely to differ from risk-affine individuals in decision processes that are as significant as the transition to parenthood.

### Theoretical background

The reflections below follow from the assumption that childbearing decisions should be understood as a result of a *rational choice*.<sup>2</sup> It is also assumed that since such decisions are irreversible, they are well thought-out and based on a thorough planning process<sup>3</sup> requiring the coordination of different plans across the life course. The difficulty of reconciling competing life goals in the career and family domains have led to an extended postponement of childbirth (in West Germany in particular)—in many cases lasting until after people have established themselves in a career.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> The terms "risk attitudes" and risk "propensity" will be used synonymously in this article to describe the individual willingness to take risks.

<sup>&</sup>lt;sup>2</sup> See, for a general discussion: Harvey Leibenstein, "Economic Decision Theory and Human Fertility Behavior: A Speculative Essay," *Population and Development Review* 7, no. 3 (1981).

<sup>&</sup>lt;sup>3</sup> See Icek Ajzen, "The Theory of Planned Behavior," *Organizational Behavior and Human Decision Processes* 50 (1991).

<sup>&</sup>lt;sup>4</sup> See Christian Schmitt, "Labour Market Integration, Occupational Uncertainties, and Fertility Choices in Germany and the Uk," *Demographic Research* 26 (2012).

This raises the question of how fertility-related planning processes unfold in the context of high or low risk propensity. Whereas the psychologically oriented research has analyzed risk propensity mainly in the context of personality characteristics,<sup>5</sup> studies in behavioral economics address the topic of risk propensity primarily in analyses of monetary assets, savings and investment behavior, and decision processes relevant to career and income.<sup>6</sup> In the empirical social sciences, the importance of risk propensity has seldom been examined in relation to demographic decisions.<sup>7</sup>

More recent studies on the conceptual structure of risk propensity or risk aversion suggest that this characteristic is rooted in an individual's personality structure as reflected in the "Big Five" personality inventory. Borghans et al. (2008) distinguish risk aversion, as a non-cognitive personality trait, from a person's cognitive repertoire. If one accepts this understanding of risk propensity as a component of personality structure, one can assume that this trait remains broadly stable over time, analogously to the Big Five personality dimensions. Experimental analyses based on hypothetical lottery games support this view. A study by Sahm (2007) based on data from the US Health and Retirement Study (HRS) shows that individual risk propensity remains largely stable over time. Steinberg (2004) notes that risk aversion declines significantly in adolescence, and then increases again continuously, although slowly,

<sup>&</sup>lt;sup>5</sup> Stephen Soldz and George E. Vaillant, "The Big Five Personality Traits and the Life Course: A 45-Year Longitudinal Study," *Journal of Research in Personality* 33, no. 2 (1999).

<sup>&</sup>lt;sup>6</sup> See e.g. Jesper Ekelund et al., "Self-Employment and Risk Aversion. Evidence from Psychological Test Data," *Labour Economics* 12, no. 5 (2005).

<sup>&</sup>lt;sup>7</sup> Excetions are Lucie Schmidt, "Risk Preferences and the Timing of Marriage and Childbearing," *Demography* 45, no. 2 (2008).or Christy Spivey, "Desperation or Desire? The Role of Risk Aversion in Marriage," *Economic Inquiry* 48, no. 2 (2010).

<sup>&</sup>lt;sup>8</sup> Sampo V. Paunonen and Douglas N. Jackson, "The Jackson Personality Inventory and the Five-Factor Model of Personality," *Journal of Research in Personality* 30, no. 1 (1996).

<sup>&</sup>lt;sup>9</sup> Lex Borghans et al., "The Economics and Psychology of Personality Traits," *Journal of Human Resources* 43, no. 4 (2008).

<sup>&</sup>lt;sup>10</sup> John M. Digman, "Five Robust Trait Dimensions: Development, Stability, and Utility," *Journal of Personality* 57, no. 2 (1989).; Soldz and Vaillant, "The Big Five Personality Traits and the Life Course: A 45-Year Longitudinal Study; Thomas Dohmen et al., "Individual Risk Attitudes: Measurement, Determinants, and Behavioral Consequences," *Journal of the European Economic Association* 9, no. 3 (2011).

<sup>&</sup>lt;sup>11</sup> Claudia R. Sahm, "Stability of Risk Preference," *Finance and Economics - Board of Governors of the Federal Reserve System Discussion Paper Series*, no. 66 (2007).

<sup>&</sup>lt;sup>12</sup> Likewise: Dohmen et al., "Individual Risk Attitudes: Measurement, Determinants, and Behavioral Consequences."

<sup>&</sup>lt;sup>13</sup> Laurence Steinberg, "Risk Taking in Adolescence: What Changes and Why?," *Annals of the New York Academy of Sciences* 102, no. 1 (2004).

across the life course.<sup>14</sup> Aside from this slow increase over the life course, however, the aforementioned studies do not object to a general stability of risk attitudes over time. This is relevant for the present study, since—if risk propensity is indeed a factor influencing the childbearing decision—the trait of individual risk propensity should display a latent and not merely a situation-dependent effect.

Further studies have shown that women are significantly more risk-averse than men<sup>15</sup> and that body height is positively correlated with risk propensity.<sup>16</sup> A higher level of educational attainment has been found to be associated with a higher degree of risk aversion.<sup>17</sup> Some studies have even suggested that there is an intergenerational transmission of risk propensity.<sup>18</sup>

Alongside these findings, which describe inter-individual differences in the largely stable personality trait of risk propensity, the assessment of a situation or choice as being risky varies, ceteris paribus, with the degree of insecurity about contextual conditions. Sources of such insecurity may be variations in the general labor market situation or in the economy at large, which in turn influence individual employment opportunities and risks. The decision-making context is thus influenced by the objectively given risks (in the example above, uncertainties in the economic circumstances), which are evaluated through the lens of individual risk propensity.<sup>19</sup>

Currently, the only existing empirical study dealing specifically with the effect of risk propensity on childbearing decisions uses US data. Schmidt (2003) concludes that women who display high risk propensity and have a university education tend to postpone childbearing, whereas high risk propensity at a younger age is associated with less effective use of contraceptives, which tends to favor teenage pregnancies.

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<sup>&</sup>lt;sup>14</sup> See also Bas; Bertrand Melenberg Donkers, Arthur van Soest, "Estimating Risk Attitudes Using Lotteries: A Large Sample Approach.," *Tilburg Center for Economic Research Discussion Paper*, no. 9912 (1999)., Sahm, "Stability of Risk Preference."; Sahm, "Stability of Risk Preference.".

<sup>&</sup>lt;sup>15</sup> Borghans et al., "The Economics and Psychology of Personality Traits."; Catherine C. Eckel and Philip J. Grossman, "Men, Women and Risk Aversion: Experimental Evidence " in *Handbook of Experimental Economic Results*, ed. Charles Plott and Vernon Smith (Amsterdam: Elsevier 2008).

<sup>&</sup>lt;sup>16</sup> Dohmen et al., "Individual Risk Attitudes: Measurement, Determinants, and Behavioral Consequences."

<sup>&</sup>lt;sup>17</sup> Martin Halek and Joseph G. Eisenhauer, "Demography of Risk Aversion," *The Journal of Risk and Insurance* 68, no. 1 (2001).; David A. Jaeger et al., "Direct Evidence on Risk Attitudes and Migration," *The Review of Economics and Statistics* 92, no. 3 (2010).; Steffen; Harrison Andersen, Glenn W.; Lau, Morten I. and Rutström, E.Elisabet, "Eliciting Risk and Time Preferences," *Econometrica* 76, no. 3 (2008).

<sup>&</sup>lt;sup>18</sup> See Thomas Dohmen et al., "The Intergenerational Transmission of Risk and Trust Attitudes," *IZA Discussion Paper Series*, no. 2380 (2006)., Allan M. Williams and Vladimir Baláž, "Migration, Risk, and Uncertainty: Theoretical Perspectives," *Population, Space and Place* 18, no. 2 (2011).

<sup>&</sup>lt;sup>19</sup> Borghans et al., "The Economics and Psychology of Personality Traits."

In general, the transition to parenthood in western societies is usually accompanied by an intensive process of consideration and planning.<sup>20</sup> These considerations revolve around the pros and cons of long-term emotional, temporal, and financial commitments. Fixed-term jobs or jobs that are uncertain in duration; impending unemployment; and a significant worsening of the labor market situation are all factors that threaten future investments in children's needs. In the context of such objectively given uncertainties, childbearing tends to be postponed.<sup>21</sup> It can therefore be assumed that—in the context of economic uncertainties—the *decision to start a family* is affected by individual risk propensity.<sup>22</sup> In other words, the lower an individual's risk tolerance is, the more that individual will perceive uncertain conditions as threatening, and the more the individual's childbearing propensity will decline.<sup>23</sup>

Distinguishing between East and West Germany appears to be a promising analytical approach due to the far-reaching changes that the fall of the Wall brought about in the living situations of East Germans. We can assume that risk-averse individuals perceived the uncertainties resulting from this historic event as significantly more severe than other, less risk-averse individuals.

# Fertility and risk attitudes in East and West Germany

In the years following reunification, East Germany underwent a sharp decline in the total fertility rate (TFR), while the fertility rate in West Germany has remained at a low level up to the present day. Despite the fact that TFRs in East and West Germany have now converged, the institutional differences between East and West that persisted over many years (especially regarding female labor market activity) continue to have a decisive impact on childbearing behavior. The transition to first parenthood still occurs significantly earlier in the East than in the West.

In contrast to women in West Germany, whose efforts at pursuing a career alongside family life were often stymied by the dominant male breadwinner model of the 1950s and 1960s, women and particularly mothers in the GDR were strongly integrated into the labor market. Female

<sup>21</sup> Sumon Kumar Bhaumik, "Does Economic Uncertainty Affect the Decision to Bear Children? Evidence from East and West Germany," *IZA Discussion Paper Series* 1746 (2005).; Michaela Kreyenfeld, "Uncertainties in Female Employment Careers and the Postponement of Parenthood in Germany," *European Sociological Review* 26, no. 3 (2010).

<sup>&</sup>lt;sup>20</sup> John Hobcraft and Kathleen E. Kiernan, "Becoming a Parent in Europe," *Prepared Paper: European Population Conference, September 4-8, 1995, Milano, Italy* (1995).; Guy Moors, "The Valued Child. In Search of a Latent Attitude Profile That Influences the Transition to Motherhood," *European Journal of Population* 24, no. 1 (2008).

<sup>&</sup>lt;sup>22</sup> Leonard Green and Joel Myerson, "A Discounting Framework for Choice with Delayed and Probabilistic Rewards.," *Psychological Bulletin* 130, no. 5 (2004).

<sup>&</sup>lt;sup>23</sup> Peter McDonald, "Sustaining Fertility through Public Policy: The Range of Options," *Population* (*English Edition*, 2002-) 57, no. 3 (2002)., Peter McDonald and Ann Evans, "Family Formation and Risk Aversion." (paper presented at the Negotiating the Lifecourse - NLC Workshop, The Australian National University, 17-18 May 2002 2002).

employment and the expansion of childcare options were goals expressly pursued in the GDR—not least because women were urgently needed to contribute as workers in an economic system with low overall productivity.<sup>24</sup> The historic framework in East Germany established cultural and institutional structures that still have a significant effect to this day. The labor market participation of East Germany women is still higher than that of West German women, while the percentage of women working part-time in the East is significantly lower. There is still a dense network of childcare institutions in the East, and the social acceptance of childcare for infants is much higher there than in the West. The situation of social upheaval in the years after the end of the GDR, the confrontation of former GDR citizens with the competitively oriented labor market, and the high degree of subjective and objective uncertainties that accompanied economic transformation processes led to a widespread—although temporary—postponement of childbearing.

Against this backdrop, we will first examine the question of what role a possible difference in risk propensity between East and West Germany has played in fertility behavior. While German reunification was a period of upheaval for the East German population in particular, its effect on fertility may well have been multiplied by higher risk aversion in the East. This is based on the assumption that the socialization in a welfare state like the GDR—which offered limited possibilities for political participation, exercised a degree of control over personal living situations, and established clear limitations on individual economic options—had a long-term effect on individual risk propensity. This is especially true since these framework conditions were accompanied by very low economic insecurities. Unemployment and the threat of extreme financial hardships were de facto nonexistent. This external constraint on the range of personal experiences may have resulted in a stronger aversion to risk in the East than in the West.

# > Fig 1: Risk Propensity in the East and West by Cohorts <

Figure 1 presents a descriptive analysis of risk propensity in the East and West.<sup>25</sup> At first glance, the results seem to present a familiar picture of gender-specific differences in risk propensity<sup>26</sup>.

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<sup>&</sup>lt;sup>24</sup> Hana Hašková and Christina Klenner, "Why Did Distinct Types of Dual-Earner Models in Czech, Slovak and East German Societies Develop and Persist?," in *Special Issue: Zeitschrift Für Familienforschung/Journal of Family Research 3/2010: Gender Relations in Central and Eastern Europe - Change or Continuity?*, ed. Christian Schmitt Schmitt and Heike Trappe (Leverkusen: Budrich, 2010).

<sup>&</sup>lt;sup>25</sup> In the SOEP, risk propensity was measured in the years 2004 and 2010 on a scale from 0 ("unwilling to take risks") to 10 ("completely willing to take risks"). The analyses were differentiated by cohort groups, to distinguish between whether socialization occurred primarily within the GDR institutional framework, in West Germany before the fall of the Wall, or to some extent in reunified Germany.

Women from East and West Germany are more risk-averse than men, independent of the cohort. Interesting differences appear in a direct East-West comparison of gender groups for those cohorts, which went through all (cohorts 1950-1959) or most of their adolescence and post-adolescence (cohorts 1960-1969) before reunification and thus in a different institutional framework from the present one. East German men from birth cohorts 1950-1959 show a somewhat higher risk aversion than West German men. In the most recent cohorts under examination (1970-1979), which went through their socialization in stable institutional settings, however, no further significant differences in risk propensity appear in East-West comparison among men, while the differences remain fairly small among women.

Surprisingly, in contrast to the hypothesis above of higher risk propensity in the East, the results show that risk aversion is higher among West German women than among East German women. This is true of all cohorts under consideration, even if the magnitude of the difference is most pronounced for the oldest of the cohorts. A possible explanation was the incorporation of East German women into the labor market at an early stage in the life course, which also led to their integration into non-private social networks. West German women—especially in the oldest of our cohorts—were more focused on family and particularly on housekeeping and caregiving responsibilities due to the dominance of the male breadwinner model in West Germany. The widespread integration of East German women into the labor market, in contrast, may have played a significant role in how this group dealt with risks and uncertainties.

The initial findings thus give a number of indications that the welfare state does indeed play a decisive role in the emergence of individual risk attitudes. The relationship does not, however, follow the simple formula "a high level of security promotes risk aversion." Rather, the social structuring of gender-specific areas of experience appears to play a key role: among West German men, who show a high risk propensity, the necessity of personal economic initiative is particularly important (the idea inherent in the male breadwinner model of establishing oneself in a career as protection against financial insecurities). Among East German women, the salient factor in their higher risk propensity compared to West German women appears to be a result of their focus on labor market activity (entailing wider social circles, independent areas of professional competence, and thus greater security when faced with uncertainties).

## Methodological framework

The multivariate analysis examines the effect of risk propensity on the decision to become a parent. The data used were taken from the Socio-Economic Panel (SOEP) 1995-2008. The SOEP is a longitudinal survey of private households in Germany repeated annually since 1984.

<sup>&</sup>lt;sup>26</sup> Eckel and Grossman, "Men, Women and Risk Aversion: Experimental Evidence "., Dohmen et al., "Individual Risk Attitudes: Measurement, Determinants, and Behavioral Consequences."

An additional East survey was carried out in the years 1990/1991. The dataset offers, in addition to extensive birth histories for men and women, detailed occupational histories, information on career and fertility preferences, as well as a survey of individual risk propensity, which has been carried out since 2004. The empirical analyses consider all subsamples in the SOEP up to 2001 with the exception of the immigrant sample (Sample D).

The empirical models are based on discrete time event history analyses of the transition to first-parenthood or of the decision to become a parent. The population at risk thus consists of childless men and women from the 1965-1979 birth cohorts. The key explanatory variable is individual risk propensity. Risk propensity has been measured in SOEP every two years since 2004 on an 11-point Likert scale. The question is "How do you see yourself: Are you generally a person who is fully prepared to take risks or do you try to avoid taking risks?" The scale of answer options runs from 0 ("unwilling to take risks") to 10 ("completely willing to take risks"). This wording may sound very abstract at first, and may raise doubts about the validity of the item. It appears particularly questionable if one accepts the idea that risk-taking is a multidimensional construct.<sup>27</sup>). At the same time, a number of studies haveconfirmed the high construct validity of such abstract measures of risk propensity.<sup>28</sup>

In the empirical model, risk propensity is operationalized based on scale values ranging from 0 (very risk-averse) to 10 (very risk-affine) both as pseudo-metric variables and in dichotomized form. The dichotomization is aimed at separating out those who present themselves as very risk-loving (risk propensity > 6). An initial analysis of the decision to have a first child examines various functional specifications of risk propensity (see Table 1).

The further analysis of the influence of risk propensity on the decision to become a parent is based on a discrete hazard rate model.<sup>29</sup> We took into account the cohorts born between 1965 and 1979 for the years 1995 to 2008. The empirical analyses differentiate between survey regions (West/East) and between men and women. This was done to take into account differences in risk propensity between East and West Germany, as well as the assumption that

<sup>&</sup>lt;sup>27</sup> That is, a person may be highly risk-prone in their health behavior, and at the same time highly risk-averse in their financial matters. See Yaniv Hanoch, Joseph G. Johnson, and Andreas Wilke, "Domain Specificity in Experimental Measures and Participant Recruitment," *Psychological Science* 17, no. 4 (2006).

<sup>&</sup>lt;sup>28</sup> Dohmen et al. (2011) also come to this conclusion based on the SOEP. In the 2004 survey wave, alongside the general question of risk propensity, respondents are also asked to rate their specific willingness to take risks in their leisure time, when driving a car, in their health behavior, in saving money, in career decisions, and in trusting other people. The authors confirm a high explanatory value of the general question of risk propensity for all these areas. See also Schmidt, "Risk Preferences and the Timing of Marriage and Childbearing.", or Arnaud and Stephane Couture Reynaud, "Stability of Risk Preference Measures: Results from a Field Experiment on French Farmers," (2010).

<sup>&</sup>lt;sup>29</sup> Complementary-Log-Log with time-varying controls for age. See Janet Box-Steffensmeier and Bradford S. Jones, *Event History Modelling. A Guide for Social Scientists*, *Analytical Methods for Social Research* (Cambridge: Cambridge University Press, 2004).

the fertility decisions of men and women are affected by different factors (particularly due to different opportunity costs).

## **Findings**

The initial analysis of the influence of risk propensity on the decision to have a first child in East and West Germany was conducted based on a rudimentary estimation model (Table 1) that examines the effect of risk propensity based on different specifications of this indicator. While the dichotomized and linear measurements of risk propensity do not provide clear results, the curvilinear specification shows that increasing risk propensity is accompanied by an increasing hazard rate of the decision to have a first child, although the hazard rate declines again when risk propensity increases further. In the birth cohorts born between 1965 and 1979, this effect is significant in all subgroups, that is, among women and men in East and West Germany. The peak of the curve is at around 5 points for those with a moderate risk propensity (men West 5.4; women West 5.5; men East 5.4; women East 5.2). These initial findings show a higher likelihood to first-time parenthood among individuals with a moderate risk propensity of around 2.5 to 7.5 points. Individuals with an extremely high or extremely low risk propensity showed a lower likelihood to have a first child.

> Table 1: Risk propensity and the decision to have a first child 1995-2008 <

Risk propensity and the transition to parenthood

The finding of a higher propensity to first-time parenthood among individuals with a moderate risk propensity (that is, individuals who are neither extremely risk-averse nor extremely risk-loving) was also confirmed in the extended empirical models (Tables 2 and 3). It should also be emphasized that no significant gender-specific differences appeared in the relation between risk propensity and fertility. However, these findings suggest that a higher risk propensity is not associated with a generally higher hazard rate of the transition to parenthood. At the same time, the results do not confirm the counter-assumption outlined by Friedman, Hechter, and Kanazawa (1995) <sup>30</sup> that risk-averse individuals favor family formation as a source of stability and security against uncertainties in the life course. It is conceivable, however, that the mechanisms described work in parallel. According to this idea, parenthood initially offers an increase in stability. Here, making the step to first-time parenthood requires a minimum level of risk propensity (i.e., a higher risk propensity fosters the transition to parenthood). Individuals with a level of risk propensity below this threshold level tend to postpone the decision. In contrast, those with very high level of risk propensity behave similarly in delaying family

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<sup>&</sup>lt;sup>30</sup> Debra Friedman, Michael Hechter, and Satoshi Kanazawa, "A Theory of the Value of Children," *Demography* 31, no. 3 (1994).

formation, albeit with a different motivation, namely to postpone parenthood at a stage that they may perceive as being too early and instead invest their time in pursuing other life goals.

The employment situation and precarious employment

Regarding the interaction between employment uncertainties and risk propensity, the results show that among unemployed West German women, those with a low to moderate level of risk propensity (values < 6) tend to postpone parenthood when working in insecure jobs and precarious employment (fixed term contract or casual employment). At the same time, however, risk averse women show the highest likelihood of deciding to have a first child during unemployment (Table 2, Model (3)). This gives an indication that the focus on family formation can serve to compensate for uncertainties in other areas. This is particularly true when failure to find a job suggest dismal chances of re-entering the labor market. The association between risk aversion and unemployment that appears for West German but not East German women could appear due to the fact that in the West, motherhood remains a socially accepted alternative to a career due to the long dominance of the male breadwinner model there. In the East, however, because of the traditionally strong integration of East German women into the labor market, there was less social recognition for this kind of lifestyle, which therefore offered little to no increase in security <sup>32</sup>.

Economic framework conditions and risk propensity

The great insecurity of many East German men and women resulting from the economic transformation after the end of the GDR is reflected in the results differentiated by historic periods (1995-1999 vs. 2000-2010; Table 3, Models (1) & (2)). Here we see that there was a significant decline in individual childbearing propensity far into the 1990s. One not insignificant reason for this was the confrontation of GDR citizens with the competitively oriented West German labor market and their high subjective and objective insecurities in the wake of the post-reunification political and economic transformation process. The threat of labor market uncertainties and the sharp increase in unemployment that occurred after the fall of the Wall were new experiences for most East German citizens.

Surprisingly, the opposite effect appears for West German men and women compared to their East German counterparts: the childbearing propensity among West Germans increased in the period from 1995-1999 (Table 2, Models (1) & (2)). This translates into lower fertility in the reference period (2000-2010). This may have been the result of increasing flexibilization of the labor market starting in the late 1990s and early 2000s. Although the relevant labor market

<sup>32</sup> The limited number of cases, however, might also be relevant in suppressing significant effects.

<sup>&</sup>lt;sup>31</sup> Annemette Sørensen and Heike Trappe, "The Persistence of Gender Inequality in Earnings in the German Democratic Republic," *American Sociolgoical Review* 60, no. 3 (1995).

processes also affected the East German population, the associated economic upheavals represented a much more dramatic rupture in the securities upon which the West Germans had long relied. In this sense, the higher individual-level childbearing propensity found for West German men and women in the period up to 1999 can be interpreted as meaning that the economic uncertainties resulting from the flexibilization of the labor market were accompanied by a postponement of parenthood starting in the late 1990s.

These findings are reinforced by the interaction effects between the historic periods and risk propensity (Tables 2 and 3, Model (2)). Here, a lower transition rate to first-time parenthood appears for East German women with a low to moderate level of risk propensity in the period 1995-1999. For West German men and women with a low risk propensity, however, we again see the opposite effect of *higher* childbearing propensity in the relatively stable period in the West from 1995-1999, which implies a reduced childbearing propensity among risk-averse individuals in the reference period starting in 2000. The connecting element between East and West here is that in both parts of the country, it was mainly risk-averse individuals who tended to postpone first-time parenthood when faced with economic uncertainties resulting from macro-structural transformation processes.

## **Summary**

The findings presented here support the idea that a moderate level of risk propensity promotes the transition to first-time parenthood, while a high level of risk aversion tends to lead to a postponement of parenthood. The results of this study do not, however, confirm the simple formula "a high risk propensity is expressed in a high childbearing propensity." The finding that both a high risk aversion and a very high risk affinity have a negative effect on the transition to parenthood is central. In this regard, no differences were found either between men and women or between East and West Germany.

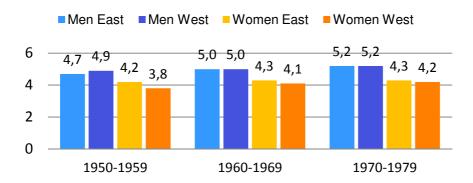
The inner-German comparison is particularly interesting, however, with regard to the differentiation of phases of insecurity in the economic framework conditions. In the East, the political and economic transformation process in the years after the fall of the Wall continued to influence fertility decisions far into the 1990s. In the West, the crucial factor was the shift from stable employment patterns to increased destandardization and flexibilization in the labor market in the late 1990s. The relevant processes of upheaval led, at different points in time in East and West Germany, to a postponement of the transition to parenthood.

Here, it was particularly individuals with a low risk propensity who postponed first-parenthood in the context of macrostructural uncertainties. At the individual level, however, the results give only limited indications that persons choose to start a family formation as safe haven that offers a sense of stability in the face of increasingly precarious and insecure employment patterns. One

of the few findings that indicate such a relation is the marked childbearing propensity of unemployed West German women with a *low* risk propensity. For these women, who perceive their employment prospects as dismal, family formation offers social recognition and stability in a life course that is otherwise fraught with uncertainties.

## **Figures and Tables:**

Figure 1: Risk propensity in East and West Germany by cohorts 2006 & 2010



Source: SOEP 2006 & 2010, author's calculations; weighted values; n=21.618.

Table 1: Risk propensity and the decision for first-time parenthood 1995-2010

Cohorts 1965-1979	♂ West	♀ West	♂East	♀East
	exb(b)	exb(b)	exb(b)	exb(b)
(1) Dichotomous				
Risk propensity> 6	0.90	0.95	0.99	0.74
(2) Linear				
Risk propensity (0-10)	0.98	0.98	1.01	0.97
(3) Curvilinear				
Risk propensity (0-10)	1.31***	1.12	1.45*	1.43*
(Risk propensity) <sup>2</sup>	0.97***	0.98*	0.97*	0.96**
n_subjects / events	1100/612	1143/667	315/182	279/178

\*p< 0.10, \*\*p< 0.05, \*\*\*p< 0.01; not shown: controls for age effects and constants.

Method: discrete time complementary log-log.

Source: SOEP 1995-2011, author's calculations.

Table 2: Risk propensity and the decision for first parenthood in West Germany 1995-2010

West Germany	(1)		(2)	
Cohorts 1965-1979	් exb(b)	္ exb(b)	් exb(b)	♀ exb(b)
Risk propensity Risk propensity (0-10) (Risk propensity) <sup>2</sup>	1.40*** 0.97***	1.15 <sup>*</sup> 0.98 <sup>*</sup>	1,43*** 0.96***	1,21 <sup>**</sup> 0.98 <sup>***</sup>
<b>Period</b> Period 2000-2010 Period 1995-1999	1	1	1 1.21 <sup>*</sup>	1 1.45 <sup>***</sup>
Period x Risk propensity 1995-1999*risk prop. (0-6) 1995-1999*risk prop. (>6)	1.14 0.79*	1.15 <sup>*</sup> 0.78 <sup>*</sup>		
Employment <sup>a)</sup> EmployedFull-Time(Ref.) Precarious & Part-Time Precarious/PT*risk p.(0-6) Precarious/PT*risk p. (>6)	1 0.82 <sup>*</sup>	1 0.83 <sup>*</sup>	1 0.83 0.87	1 0.79 <sup>**</sup> 1.43
Umemployed Umempl.*risk prop. (0-6) Unemployed *risk p. (> 6) In education/training	0.87	1.49** 0.39***	0.95 0.65 0,72**	1.57 <sup>*</sup> 1.05 0,39 <sup>***</sup>
Partner unemployed	1.07	0.94	1,07	0,99
n_subjects / events	1100/612	1143/667	1100/612	1143/667

<sup>\*</sup>p< 0.10, \*\*p< 0.05, \*\*\*p< 0.01;

Omitted controls: age groups, fertility preferences, migration background, marital status, educational attainment

Method: discrete time complementary log-log. Source: SOEP 1995-2011, author's calculations.

a) Not shown: residual category "others" and indicator variable for missing values.

Table 3: Risk propensity and the decision for first parenthood in East Germany 1995-2010

East Germany	(1)		(2)	
Cohorts 1965-1979	් exb(b)	♀ exb(b)	් exb(b)	♀ exb(b)
Risk propensity Risk propensity (0-10) (Risk propensity) <sup>2</sup>	1.42 <sup>*</sup> 0.97 <sup>*</sup>	1.24 0.97 <sup>*</sup>	1.38 <sup>*</sup> 0.97 <sup>*</sup>	1.22 0.98
<b>Period</b> Period 2000-2010 Period 1995-1999	1	1	1 0.64 <sup>**</sup>	1 0.62***
Period x Risk propensity 1995-1999*risk prop. (0-6) 1995-1999*risk prop. (>6)	0.58 <sup>***</sup> 0.81	0.63 <sup>**</sup> 0.33		
Employment <sup>a)</sup> EmployedFull-Time(Ref.) Precarious & Part-Time Precarious/PT*risk p.(0-6) Precarious/PT*risk p. (>6)	1 0.84	1 0.90	1 0.76 1.17	0.90 0.84
Umemployed Umempl.*risk prop. (0-6) Unemployed *risk p. (> 6) In education/training	0.77 0.60 <sup>*</sup>	1.50 0.55**	0.88 0.31 0.61	1.64 0.72 0.54*
Partner unemployed	1.92**	0.60	1.98**	0.63
n_subjects / events	315/182	279/182	315/182	279/182

<sup>\*</sup>p< 0.10, \*\*p< 0.05, \*\*\*p< 0.01;

Method: discrete time complementary log-log. Source: SOEP 1995-2011, author's calculations.

a) Not shown: residual category "others" and indicator variable for missing values.