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Marry into new or old money? The distributional impact of marital decisions from an intergenerational perspective

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Abstract

This paper examines the distributional consequences of marital decisions on family wealth and potential inheritances. We use a large administrative dataset from Switzerland that contains detailed wealth information and enables us to identify spouses and their parents. We find that marital sorting is particularly pronounced at the tails of the wealth distribution. However, the financial similarity of couples' parents is much smaller. The distributional effect on parental wealth is only half the size. We identify intergenerational social mobility as the mechanism behind this attenuation over generations. Consequently, chances of making a "good match" depend much more on one's own wealth than on potential inheritances.

Keywords: assortative mating, parents, intergenerational mobility, wealth, inequality
JEL Classification: D31, J12, J62

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1 Introduction

"Bella gerant alii, tu felix Austria nube." - "Wars may be waged by others, you, happy Austria, marry." This famous saying is quoted when the rise of the Habsburgs is linked to successful marriage policy. The young archdukes and archduchesses were often married to members of other dynasties or even to members of their own family. But the saying also has a more general aspect: It is a deeply anchored concern in many affluent families that their own children make a "good match". This tendency of like to marry like is significant for economic inequality in general and the consolidation of social structures in particular.

Recently, a growing body of research has associated assortative mating with a rise in household income inequality (Greenwood et al., 2014; Eika, Mogstad and Zafar, 2019; Häner, Salvi and Schaltegger, 2021). However, studies on intergenerational effects of marital sorting have been lacking so far. But the question of whether selective mate choice leads to solidification of wealth structures over generations remains relevant today. Advantages due to family dynasties run against the meritocratic principle. Therefore, it is essential to distinguish between similarities in own wealth (new money) and parental wealth (old money) when analyzing the distributional consequences of marriage behavior. Are we still living in Habsburg times, where dynasties are preserved through targeted marriage behavior?

Our main contribution is to shed light on this question by analysing marital sorting patterns with respect to wealth – own and potential inheritances. We look at individual wealth levels at the time of marriage and assess whether marital sorting affects the concentration of wealth. We do not limit our analysis to the spouses but enlarge the concept by including family background. Parents' and parents-in-law's wealth play an important role – at the latest when wealth is bequeathed. By linking assortative mating with intergenerational social mobility, we assess the impact on the distribution of wealth both at the

household and the parental level and show that social mobility prevents dynasties from manifesting themselves with targeted partner selection.

We use a comprehensive administrative dataset from Switzerland that links tax with survey data from 2011 to 2015. Switzerland is one of the few Western countries with a wealth tax and consequently with available wealth data (OECD, 2018). The data's coverage and detailed nature allow us to connect the spouses' economic status and family background across the whole distribution. To determine the extent of assortative mating, we use contingency tables to compare the likelihood of a particular match to its probability under random matching. Similarly, to assess the effect on wealth inequality we compare Gini coefficients and top shares to the situation under random matching. Finally, we analyze the intergenerational mechanism by determining the change in intergenerational social mobility through marriage as well as the share of assortative mating in the intergenerational relationship.

Our paper shows that marriages into new money are more pronounced than marriages into old money. We build our conclusion on three main findings. First, we show that assortative mating in Switzerland is particularly pronounced at the distribution tails. A woman in the top quintile of the wealth distribution is twice as likely to marry a man from the same quintile than expected under random mating. Assortative mating remains prevalent when looking at other quantiles.

Second, we find assortative mating with regard to potential inheritance measured by parental wealth. The respective parents and in-laws are more likely to be in the same wealth quintile than randomly expected. However, this similarity in potential inheritance is significantly less pronounced than with regard to couples' own wealth. A match between spouses with both parents being in the top wealth quintile is only 1.3 times more likely to occur than expected under random matching.

Third, we show that the intergenerational differences are reflected in the respective

distributional impact. At the household level, assortative mating increases the wealth Gini coefficient by 5.0%. The mating-induced increase in the top 1% wealth share amounts to 1.3%. The inequality effects at the parental level is only half the size of the couple level effect. This is consistent with our finding that couples are significantly more similar in their own wealth than their potential inheritance. In doing so, we show that while marriage behavior increases inequality, its interaction with social mobility mitigates the cementation of dynasties. Consequently, we conclude that social mobility attenuates the inequality effect of marital sorting across generations.

Our study is primarily related to the empirical literature on assortative mating, reviewed by Chiappori (2020). Our paper expands and clarifies this prior research in two important ways.

First, we contribute to the literature by analyzing high-quality wealth data, which are sparse. Recent literature has largely debated whether or not educational assortative mating has played a role in explaining increased inequality, mostly by estimating the Gini coefficent based on survey data (e.g., Frémeaux, 2014; Eika, Mogstad and Zafar, 2019). However, only few studies have analyzed more detailed wealth data and most of them relate to parental wealth (e.g., Wagner, Boertien and Gørtz, 2020; Fagereng, Guiso and Pistaferri, 2021). As Switzerland is among the few countries left with a recurring annual wealth tax for all permanent residents, this makes it an excellent case to study wealth inequality and social mobility effects.

Second, we connect the parental generation's economic situation to the one of couples. While some studies have already included parental status measures to assess the extent of marital sorting with regard to family background (e.g., Ermisch, Francesconi and Siedler, 2006; Charles, Hurst and Killewald, 2013; Wagner, Boertien and Gørtz, 2020), they have not analyzed interactions with intergenerational social mobility and its distributional consquences so far. However, a multigenerational approach allows to determine whether the

inequality effects are of short-term nature or even have intergenerational consequences. Therefore, it is important to distinguish between marriages into old and marriages into new money.

Thus, including this interaction with intergenerational social mobility seems crucial. We add to the literature by comparing couples with both their parents and in-laws. Moreover, we also compare mating-induced inequality effects at the parental level, i.e., the impact of marriages on the distribution of potential inheritances.

The rest of this paper is organized as follows. In Section 2, we present the dataset and the selection rules adopted. Section 3 contains the methods and results for the extent of assortative mating. We show the marital sorting patterns both for the couples' own and their parents' wealth. In Section 4, we show the effects of marital sorting patterns on the wealth distribution. In addition, we run robustness checks to determine the sensitivity of our results. In Section 5, we describe the intergenerational mechanism by linking the two generations. Finally, Section 6 discusses the results, presents our main conclusions, and grants an outlook on possible follow-up research.

2 Data

The analysis is based on comprehensive administrative data on permanent residents in Switzerland between 2011–2015.[1] The Swiss data combine harmonised cantonal tax data with several administrative registers (linked at the individual level via personal identification numbers) and contain rich information on wealth indicators, annual income, educational attainment, and many other variables.[2] The cantons are the administrative unit in charge of the collection of the tax returns and the taxes. This mechanism ensures that

[1] We describe our data in more detail in Appendix 6.

[2] Extensive tax data are available for 7 out of 26 cantons, namely Aargau, Basel-Landschaft, Basel-City, Bern, Lucerne, St. Gallen, and Valais.

information on incomes is available at the cantonal and federal levels at the same time and in the same format. We received these confidential data, containing the majority of items recorded in individual tax declaration, in anonymized form. However, our data allow us to link couples, family members, and generations.

2.1 Identification procedure

To examine the empirical evidence on assortative mating, we first need to address a fundamental identification problem: individual savings and earnings are affected by marriage (e.g., Chiappori, Iyigun and Weiss, 2009; Chiappori, 2020). It is especially challenging to correctly allocate assets to individual persons in married couples. Our way of addressing these issues relies on the idea that couples might make joint decisions before marriage but that those commitments do not entail the same legal consequences at that stage. In other words, the unmarried status does not provide the same degree of economic security. Consequently, to isolate the extent of marital sorting based on personal wealth, we consider couples one year before their wedding, when they are still taxed individually (see also Häner, Salvi and Schaltegger, 2021). Also, we limit our analysis to first-time marriages.[3] Thus, we take into account all couples of which both spouses married for the first time between 2012 and 2015.

We cannot capture spouses that did not live in the respective tax jurisdictions before their union formation. Every permanent resident in Switzerland above 18 years is subject to taxation and has to fill out a tax return every year. However, the individuals are not part of our dataset if they have been taxed in another canton or another country the year before their marriage.

Another critical element of our paper is to assess assortative mating concerning the potential inheritance, given by the parents' and in-laws' wealth. Moreover, parental wealth

[3]First-time marriages account for about 80% of weddings in our period of observation.

matters because it is an economic resource that people signal directly to future spouses. Wealth level of parents at the time of marriage are a good indicator of transfers and inheritances a couple can expect to receive in the future (Wagner, Boertien and Gørtz, 2020). One problem is that wealth is highly dependent on age.[4] A requirement for inclusion in our sample is the personal identification numbers of either the father or the mother of both spouses, allowing us to link parents to their respective children in the tax registry. As one or both parent(s) might not be present in the registry data if they have passed away or live outside the covered jurisdictions, we consider the wealth of parents if at least one parent of each spouse is still alive.[5]

2.2 Variable definition

Standard unitary household models assume that economic resources are pooled to maximize a joint utility function (Becker, 1993). Wealth of the spouses serves as an essential indicator of how people can make larger-scale investments, such as in their real estate. In the same manner, parental wealth can serve as an approximation for latent expectation of future wealth. The ideal data source to measure wealth inequality is population-wide administrative data on all forms of wealth at market value (Zucman, 2019). For those reasons, in our paper, we refer to wealth as net worth (*Reinvermögen*) consisting of total assets (domestic and foreign financial assets and housing, but no mandatory pension savings) minus liabilities. In Switzerland, net worth is subject to wealth tax. In a sensitivity analysis, we check whether our results vary once we base our analysis on gross instead of net wealth.

[4]Individuals tend to accumulate wealth throughout adulthood with a peak around age 60. Thereafter, levels of wealth start declining (Killewald, Pfeffer and Schachner, 2017).

[5]Our analysis performs robustness checks on this issue. For instance, we restrict the sample to parents both being alive and below the ordinary retirement age. In our sample, we observe both parents' status for 40.2% of the couples, meaning that they are all still alive and observable in the respective jurisdictions.

2.3 Descriptive statistics

The top panel of Table 1 provides core information on wealth and income for the sample of 32,112 couples.

On average, men are 32 years old one year prior to marriage, women 29 years old. The mean wealth of women is CHF 52,000, which is less than half of men's value of CHF 126'000. However, medians (CHF 19,000 vs. CHF 26,000) differ much less, which is not surprising given the high skewness of the wealth distribution. In total, 19.4% of men and 16.3% of women declare zero or negative wealth. Similarly, income is also significantly lower for women (for more details on the income variables see Häner, Salvi and Schaltegger, 2021). Overall, income is more equally distributed than wealth. The interquartile ratio Q3/Q1 is 25.4 for wealth while it is 1.6 for income.

The bottom panel of Table 1 describes the sample of 21,249 parents. Men's parents are on average 60 and women's parents 58 years old. The mean wealth of men's parents is CHF 841,000, which is substantially higher than the mean wealth of women's parents with CHF 502,000. There would be no reason why women's parents' wealth should systematically differ from men's parents' wealth. However, this difference results from high outliers. The medians are much closer to each other. An equal share of parents, roughly 15%, declare zero or negative wealth. The average incomes both amount to about CHF 130'000. For parents, the interquartile ratio Q3/Q1 is 13.6 for wealth while it is 2.1 for income.

Thus, we observe a high wealth difference between parents and their offsprings.[6] Parental wealth is roughly eight times higher. This finding stresses the importance of analyzing parent's wealth concerning marital sorting and its potential effect on inheritance inequality.

[6]In general, while gender differences in income levels might have important reasons and implications, those differences are not part of our research question.

Table 1: Descriptive statistics of main variables

	Women		*Men*	
	Mean	Std. Dev.	Mean	Std. Dev.
Couples (64,224 obs.)				
Age	29	5	32	6
Wealth (x 1,000 CHF)	52	458	126	6,389
– share ≤ 0 (%)	16.3		19.4	
Income (x 1,000 CHF)	55	48	74	200
– share ≤ 0 (%)	1.7		1.6	
Parents of couples (42,498 obs.)				
Age	58	6	60	7
Wealth (x 1,000 CHF)	502	1,845	841	23,512
– share ≤ 0 (%)	15.5		14.2	
Income (x 1,000 CHF)	130	157	128	538
– share ≤ 0 (%)	1.5		1.6	

Notes: The Table above presents descriptive statistics for the sample with individual information one year before marriage formation.

3 Marital sorting patterns

3.1 Measuring assortative mating

Assortative mating is typically defined as a mating pattern in which individuals with similar traits mate with one another more frequently than would be expected under a random mating pattern. This definition suggests that assortative mating can be quantified by the contingency table for the wife's and husband's (relative) status levels to a contingency table generated by random matching for husbands and wives (Eika, Mogstad and Zafar, 2019; Häner, Salvi and Schaltegger, 2021). Based on these contingency tables, it is possible to measure marital sorting as the likelihood of a particular match compared to the probability under random matching:

$$w(y_f, y_m) = \frac{P(Y_f = y_f, Y_m = y_m)}{P(Y_f = y_f)P(Y_m = y_m)}, \tag{1}$$

where Y_f (Y_m) denotes the relative position in a chosen status distribution (e.g., the respective individual wealth quintile) of the woman (man) and $w(y_f, y_m)$ the assortative mating parameter.

We apply equation 1 analogously for parental status to test the similarity of the couples with regard to their parents:

$$w(y_{pf}, y_{pm}) = \frac{P(Y_{pf} = y_{pf}, Y_{pm} = y_{pm})}{P(Y_{pf} = y_{pf})P(Y_{pm} = y_{pm})} \tag{2}$$

where Y_{pf} (Y_{pm}) is the relative position in a chosen status distribution of the woman's (man's) parents (e.g., the respective parental wealth quintile).

3.2 Similarities in own and parental wealth

Couple level The left table in Figure 1 shows wealth quintiles of men on the x-axis and those of their female partners on the y-axis. As the numbers on the diagonals in the graph of Figure 1 are all significantly above one, spouses in the same wealth quintile are more likely to marry each other than expected under random matching. Vice versa, marriage to a person from a distant quintile is comparatively rare. Thereby, assortative mating is particularly pronounced at the tails of the distribution: We measure the highest values for those marriages in which both spouses belong to either the top or the bottom wealth quintile. For instance, the match of a couple with both spouses in the top quintile of the wealth distribution is twice as likely as expected under random matching. In contrast to this, a match between a woman within the lowest wealth quintile and a man in the top quintile is less than half as likely compared to a random mating.

To analyze the tails of the distributions in more detail, we also calculate 1%-, 5%- and 10%-shares (see Online-Appendix Figures OA2 to OA4). What appears as a striking pattern is the increase of positive assortative mating towards the top and the bottom of the wealth distribution. The excess mating probability for marriages within the top wealth percentile is 7.9. For marriages within the bottom wealth percentile, it amounts to 19.4. That is, a marriage within the bottom 1% is 19.4 times more likely than under random matching.[7] We document significant marital sorting patterns in terms of couples' wealth. Thus, we confirm our results on income (see Häner, Salvi and Schaltegger, 2021) also with respect to own wealth.

We complement these analyses with three well-known measures that we adopt from the social mobility literature: the American Dream measure, the cycle of poverty measure, and

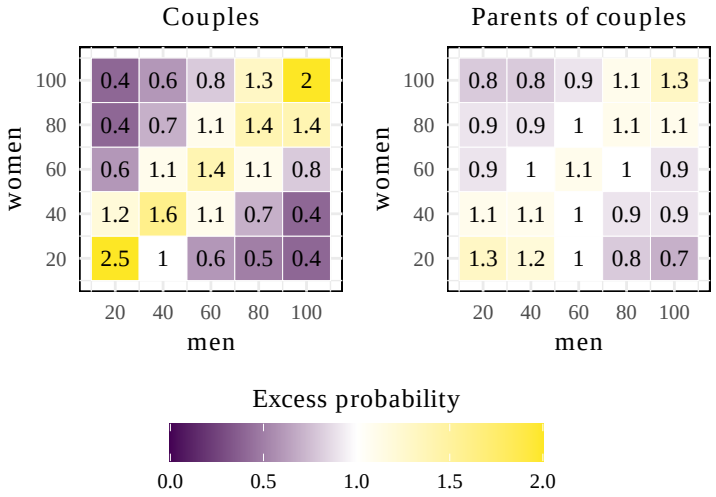
[7]Marital sorting parameters are necessarily more sensitive to individual outliers when choosing more narrow quantile ranges, such as percentiles. However, this does not affect the interpretation of the extent of assortative mating but merely explains high values for marriages within a particular percentile.

the cycle of privileges measure. The last two measures also focus at the distribution's tails. The cycle of poverty measure denotes the share of children from the bottom quintile that stay in the bottom quintile. Adapted to marriage mobility, it corresponds to marriages within the bottom quintile. As the excess probability for those marriages amounts to 2.5, the probability of a men of the bottom quintile to marry a woman from the bottom quintile is 50%. As the excess probability at the distribution's top is slightly smaller, the cycle of privileges measure is equal to 40%. Thus, 40% of the men being in the top of the wealth distribution marry within the top wealth quintile. Finally, the American dream measure describes how many percent of the children growing up in the bottom quintile make it up to the top quintile. We can adapt this measure to determine how many percent actually marry up to the top quintile - a Cinderella story instead of the American dream. As Figure 1 shows, the excess probability for both women and men being in the bottom 20% and marrying someone in the top 20% is equal to 0.4. In other words, only 8% of the people from the bottom quintile actually experience a Cinderella story.

Parental level In the right part of Figure 1, we extend the analysis of assortative mating to the parental level. The diagonal can be interpreted analogously to the left graph of figure 1. It depicts probabilities that the parents of women are from the same wealth quintile as the parents of men. Again, there are no values on the diagonal below 1. However, the similarity of parents is smaller than the one of the spouses, also at the distribution tails. Yet, we can observe comparably high excess probabilities at the top and the bottom of the distribution.[8] E.g., the excess probability in the top quintile is only 1.3 with regard to family background, whereas it amounts to 2.0 with regard to own wealth. Thus, we find stronger similarities in new than in old money. We discuss the mechanism behind this difference in the extent of similarities across generations in Section 5.

[8]In the Online Appendix, we present more detailed figures related to higher quantile ranges. Figures OA2 to OA4 depict 1%-, 5%- and 10%-shares with regard to own and parental wealth.

Figure 1: Assortative mating parameters for couples and parents of couples



Notes: The figure shows the assortative mating parameters with regard to wealth and with regard to family background, measured by the wealth of the couple's parents. The assortative mating parameter expresses for each wealth quintile combination how frequent a marriage is, compared to its frequency under random mating. The random mating is simulated by bootstrapping with a sample of 1000.
Reading guide: The excess assortative mating parameter for marriages within the bottom quintile amounts to 2.5. That is, a marriage between a man and a woman within the bottom 20% of the respective wealth distributions is 2.5 times more likely to occur than under random matching.

3.3 Comparison with existing research

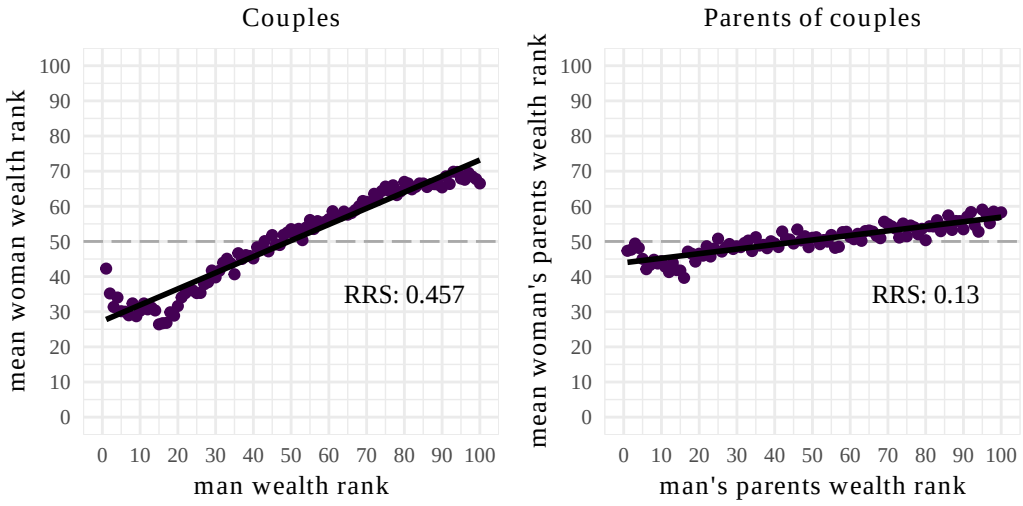
To make our results more comparable to the existing literature, we complement those contingency tables by log-log and rank-rank linear regressions, regressing the future husband's wealth on the future wife's wealth and replicating the same analysis again at the parental level. As the left part of Figure 2 shows, the average rank-rank regression amounts to 0.457 for couples' own wealth.[9] The existing literature on marital sorting based on couple's wealth is scarce. Frémeaux (2014) and Fagereng, Guiso and Pistaferri (2021) both find a weaker marital sorting with a coefficient of 0.25 in France and a similar coefficient of 0.2 for Norway.

With regard to potential inheritance, the regression coefficients vary between 0.130 (rank-rank regression) and 0.117 (log-log regression). Again, Figure 2 plots the relationship across percentiles. When we control for both parents' ages, the coefficient drops to 0.087 or 0.102, respectively. Compared to the literature on sorting based on own wealth, the existing evidence on parental wealth is richer. Charles, Hurst and Killewald (2013) measure the extent of marital sorting based on the PSID. They find a strong parental similarity of 0.4 after controlling for age and race. Fagereng, Guiso and Pistaferri (2021) replicate the analysis of Charles, Hurst and Killewald (2013). They report an average relationship between the men's parents' wealth and the women's parents' wealth of only 0.128. Once they control for demographics, the coefficient even drops significantly to 0.045. Wagner, Boertien and Gørtz (2020) use a danish dataset to analyze parental wealth homogamy and find a similar effect. They distinguish between three parental wealth measure and find correlations in ranks between 0.04 and 0.19 and a slightly higher correlation of 0.10 to 0.23 when limiting the analysis to assets only.

[9] As table A1 shows, the coefficient at the couple's level lies between 0.457 (rank-rank regression) and 0.481 (log-log regression). When we control for both man's and woman's age, the coefficient slightly drops to 0.428 or 0.449, respectively

Thus, while assortative mating is particularly pronounced at the couple's level, similarity in parental background is comparatively low. We explore the mechanism behind this intergenerational fading in Section 5.

Figure 2: Association between percentile ranks on parental and couple's level



Notes: The Figure presents a non-parametric binned scatter plot of the relationship between women's and men's percentile wealth ranks. The left graph shows the relationship at the couple's level, the right one the relationship at the parental level. The figure is based on the core sample and net wealth. The rank-rank slope for couples' wealth amounts to 0.457. If a man moves up one rank in the wealth distribution, the mean rank of his future wife increases by 0.457. The rank-rank slope at the parental level is only 0.13.

4 Impact on wealth inequality

4.1 Estimation procedure

To examine the impact of assortative mating on wealth inequality, we proceed analogously to our income inequality estimates (see Häner, Salvi and Schaltegger, 2021). That is, we measure the difference between the actual wealth distribution and the theoretical wealth distribution under random matching.

We execute this analysis again also at the parental level. With those two comparisons, we can determine the effect of assortative mating within a generation, both at the household and the parental level.

4.2 Results

Table 2 shows how assortative mating affects the wealth distribution. We compare the distribution of household wealth to the distributional outcome if husbands and wives are randomly matched. We find that assortative matching increased the Gini coefficient by roughly 5%, from 0.85 to 0.89.[10] This corresponds to an introduction of an equal-sized lump sum tax of 5% of the mean wealth that is redistributed as proportional transfers in which each household receives 5% of its wealth (Aaberge, 1997). In addition, our data allow us to assess how marital sorting affects different parts of the distribution of household wealth. For instance, the top 10% wealth share of households increases by 2.22 percentage points which corresponds to a relative change of roughly 3%.

In addition to households' wealth, marital choices also affect potential inheritances. This is of particular interest as inheritances make a big share of couples' wealth (Adermon,

[10] In our study for income, we find a significantly higher effect on the Gini coefficient of 10.7% (Häner, Salvi and Schaltegger, 2021). However, it is important to note that wealth inequality is much higher than income inequality. As soon as we standardize the effects, they are about the same for income as for wealth.

Lindahl and Waldenström, 2018; Sturrock, Joyce and Bourquin, 2021; Brülhart, Dupertuis and Moreau, 2018). To account for potential inheritances, we compare distributional wealth consequences of assortative mating on the parental generation. The change in the Gini coefficient induced by the marital sorting amounts to almost 2% for parental wealth (see right hand side of Table 2).[11] The top 10% wealth share at the parental level increases by 0.77 percentage points which corresponds to a relative change of over 1%. Thus, the weaker marriage sorting with respect to family background is also reflected in the inequality effects. The inequality effect on potential inheritances is only half the size of the effect at the household level.

[11]To determine the inequality effects at the parental level, we add up the parents' wealth for both men and women and compare it to parental sums of randomly matched couples.

Table 2: Impact of assortative mating on wealth distribution

	Couples			*Parents of couples*		
	Actual	Random (Std. Dev.)	Δ (%)	Actual	Random (Std. Dev.)	Δ (%)
Distribution						
Gini	0.89	0.85	0.04	0.74	0.73	0.01
		(0.00)	(4.77)		(0.00)	(1.69)
Top shares (in %)						
Top 10%	71.20	68.98	2.22	61.91	61.15	0.77
		(0.06)	(3.22)		(0.07)	(1.26)
Top 5%	61.13	59.58	1.55	52.05	51.50	0.55
		(0.06)	(2.60)		(0.07)	(1.07)
Top 1%	45.82	45.25	0.57	37.10	36.83	0.26
		(0.03)	(1.26)		(0.05)	(0.72)

Notes: The Table above presents the Gini coefficients and top wealth shares for the couples and their parents (actual assortative mating, or "Actual"). Furthermore, it depicts the same measures and their standard deviations for the random mating scenario ("Random"), deducted by applying 1000 sample bootstrapping. The Δ corresponds to the absolute difference between the actual and the random Gini coefficient or top wealth share, respectively. In the respective line below, this difference is shown as a relative change in percent.
Reading guide: The actual wealth Gini at the couples' level is 0.89. Under a random matching, it amounts, on average, to 0.85. This results in an absolute mating-induced difference of 0.04 and a relative change of 4.77 percent.

4.3 Sensitivity of inequality effects

We perform several specification checks to examine the sensitivity of our results. For each sensitivity analysis, we depict details on the extent of assortative mating in the Online Appendix. Table A2 shows how the different specifications affect the estimated increase in wealth inequality.

Alternative wealth measure First, we test whether our results differ for alternative wealth measures. Therefore, we consider gross wealth instead of net wealth. Compared to the more narrowly defined net worth, this measure does not consider debts. We find a similar mating pattern as in the baseline model. The excess probability in the top quintile for the couples increases slightly from 2 to 2.2. At the parental level, the marital sorting parameter in the bottom quintile increases by 0.1 up to 1.4. This is also clearly reflected in a higher inequality effect both on the Gini and the top 1% share for both the couples and their parents. Thus, this robustness check shows that the kind of wealth influences the size of the assortative mating parameter and ultimately the size of the inequality effect. This is hardly surprising, given that, e.g., net wealth – in contrast to gross wealth – already takes debt into account.

Age couples Second, we limit the age of the couples to 25 to 44 years to see whether the distributional effect differ between younger and older spouses. We find that the assortative mating patterns for both levels remain similar to the baseline model. Only the parameter for the top quintile at the couples' level decreases to 1.9. As Table A2 shows, the effect on inequality also remains stable. As might be expected, the impact on inequality is slightly smaller than in the baseline model (especially for the top 1% at the couple's level). Pronounced marital sorting among older couples (over age 44) has more substantial distributional effects on average because older spouses are wealthier on average.

Parents below ordinary retirement age Correspondingly, we also restrict age at the parents' level in a next sensitivity analysis. The wealth situation might differ between parents above and parents below the ordinary retirement age.[12] Indeed, the marital sorting at the parental level is slightly weaker once we restrict the sample to parents below the ordinary retirement age. Interestingly, the inequality effects depend on the respective measure. Whereas the effect on the parental wealth Gini coefficient is lower than in the baseline model (1.41 versus 1.70), the effect on the top 1% share is higher (0.89 versus 0.67).

Swiss nationality Furthermore, it is worthwhile to analyze whether the couple's nationality and family background - given by their parents' nationality - affect the mating patterns and their distributional consequences. As our next sensitivity analysis shows, the extent of assortative mating remains similar for this sub-sample. Correspondingly, the distributional effects are also close to the baseline model for both generations. However, our dataset only includes permanent residents, which might explain the small differences between the overall effects and the effects for couples and parents with Swiss nationality.

Parents with only one child Finally, we restrict the sample to parents that only have one child (the one being part of the couple). This is of particular interest as for those children, the potential inheritance actually is closest to the parental wealth as it does not need to be shared with siblings. Our sensitivity analysis shows again a quite similar mating pattern like in the baseline model. However, we measure a slightly higher excess probability in the bottom quintile for the couples and in the top quintile for their parents. Correspondingly, the inequality effects are higher on both levels.

[12]The ordinary retirement age in Switzerland is 65 for men and 64 for women.

5 Intergenerational mechanism

Our analysis shows that the extent of marital sorting is significantly less pronounced for potential inheritances than for own wealth. The results point towards a mitigation of marital sorting over generations. The reduced similarity at the parental level might be an expression of intergenerational social mobility. If the daughter's place in the wealth distribution did not differ from that of her parents, and if her husband's place did neither differ from the status of his parents, we would measure the same effects for own and parental wealth. The lack of social mobility would imply that assortative mating could cement the existing social structures over generations. However, Häner and Schaltegger show in their analysis for Basel (Switzerland) that on average family ties dilute after four generations. This is in line with our results presented so far showing that the effects on the parental level are only half the size of the effects at the couples' level. To identify the mechanism behind these patterns, we further explore the link between marital behavior and the intergenerational transmission of wealth.

5.1 Mating and the intergenerational transmission of wealth

Existing literature Marriage matters for intergenerational transmission to the extent that it provides an economic benefit, through the pooling of spouses' resources, that is not available to unmarried people. But the family resources gain from marriage differs among individuals as their spouse's earnings differ. Thus, the within household inequality impacts the intergenerational transmission of resources.

Previous studies have investigated the role of marriage by mainly focusing on how parental income is associated with the earnings of the child's spouse. Investigations for Western countries show that marital sorting by income explains up to 50% of the association between parental income and child's family income (Chadwick and Solon, 2002; Ermisch,

Francesconi and Siedler, 2006; Choi, Chung and Breen, 2020). We apply those methods to our wealth analysis.

Measuring the contribution of marriage Following Choi, Chung and Breen (2020), we derive the contribution of marriage (C_m) to intergenerational social mobility according to equation 3:

$$C_m = \hat{\beta}_p - \hat{\beta}_i, \tag{3}$$

where $\hat{\beta}_p$ results from the regression of the sum of the spouses' wealth at the parental wealth of the men or the women, respectively. $\hat{\beta}_i$ corresponds to the classic intergenerational social mobility coefficient.

In addition to the analysis of Choi, Chung and Breen (2020), the approach of Ermisch, Francesconi and Siedler (2006) allows us to determine the share that assortative mating has in intergenerational social mobility. For this purpose, we follow equation 4:

$$\alpha = \frac{\hat{\delta}_i}{\hat{\beta}_p} \tag{4}$$

While $\hat{\beta}_p$ indicates again the relationship between own and parental family wealth, $\hat{\delta}_i$ describes the relationship between an individual's social status and the social status of his or her in-laws. The two approaches complement each other well: the first shows how much intergenerational social mobility is dependent on marriage behavior. The second determines the share of assortative mating in the intergenerational relationship.

5.2 Decomposition of marital sorting and social mobility

Table 3 presents the results on how marital sorting and intergenerational social mobility interact. The first part provides insights into the intergenerational elasticities of wealth.[13] As the table shows, the intergenerational transmission of wealth is the highest between a child and its own parents (given by the coefficient $\hat{\beta}_i$).[14] Once we include the spouses' wealth, the coefficient ($\hat{\beta}_p$) decreases significantly for both men and women. Finally, we observe the weakest relationship between the child and its in-laws ($\hat{\delta}_i$). Again, the coefficients do not vary significantly between men and women.

For both men and women, we measure a negative absolute contribution of marriage (C_m).[15] In other words, the partner's wealth dilutes the intergenerational transmission within the parents-child relationship. At the same time, the relative portion of marital sorting amounts to roughly 60%. This emphasizes the strong interrelation between the two variables.

Against the background of these two results, we conclude that there is a strong interaction between assortative mating and intergenerational social mobility. Since there is no complete persistence, both spouses differ from the social status of their parents.[16] At the same time we see that the connection with the in-laws is lower than with own parents.

[13] Usually, the intergenerational social mobility is measured based on lifetime income or wealth. However, due to data limitation, it is barely possible to measure the lifetime social status for both generations. Therefore, it is common to measure the children's social status at the age of around 30 while measuring the parental status when their children were about 15 years old (e.g., Chetty et al., 2014). As our data are only available for the time span between 2011 and 2015, this procedure is not possible. Still, we can assume that an individual changes wealth position rarely within its own cohort (e.g., Kalambaden and Martínez, 2021). Furthermore, this measurement issue concerns all three kinds of intergenerational elasticities of wealth. As we are mainly interested in their interrelations, the time of observation is not expected to bias our main intergenerational measures.

[14] Kalambaden and Martínez (2021) find a similar coefficient of 0.27 when running a rank-rank regression on the entire Swiss society.

[15] While direction of the effect is in line with the result of Choi, Chung and Breen (2020) for the US, the extent of the reduction in the intergenerational persistence is significantly higher.

[16] Häner and Schaltegger (2021) show in their surname-based study for the time span from 1550 to 2019 that, on average, family ties dilute after four generations.

This results in a situation where social mobility counteracts strategic marriage behavior.

Thus, the chances of making a "good match" depend much more on one's social status than on the parental background. The driving force behind this relationship is the intergenerational social mobility. In other words: The Cinderella story of marrying up might be rare. Rather, the Cinderella story needs to be retold: Thanks to social mobility, it is possible for her to attain high status herself. Then her chances are high to actually marry prince charming. Conversely, it also means that families of high status cannot dynastically cement their status over generations because mating new money dominates mating old money.

Table 3: Interaction between assortative mating and social mobility

	Couple	
	Men	*Women*
Intergenerational elasticities of wealth		
$\hat{\beta}_i$: own $\sim$ parents	0.31	0.31
$\hat{\beta}_p$: family $\sim$ parents	0.21	0.21
$\hat{\delta}_i$: own $\sim$ in-laws	0.17	0.18
Absolute contribution of marital sorting		
C_m: IGE family vs. parents $-$ IGE own vs. parents	-0.11	-0.11
Relative portion of marital sorting		
α: IGE own vs. in-laws / IGE own vs. parents	0.56	0.56

Notes: This table reports the estimates for the men in our sample in the first column and the estimates for the women in our sample in the second column. The first row depicts the parent-child relationship based on individual wealth. It corresponds to the classic Intergenerational Elasticity of Earnings (IGE) applied to wealth data and amounts to 0.31. The intergenerational elasticity when both spouses' wealth is considered is depicted in the second row (0.21). The difference between the two effects can be interpreted as the absolute contribution of marriage to the intergenerational social mobility (-0.11). The third row describes the relationship between individual wealth and the wealth of the parents-in-law (0.17 for men and 0.18 for women). The proportion between the relationship with the in-laws and the relationship with the own parents indicates the relative portion of marital sorting (0.56).

6 Conclusion

While previous analyses of assortative mating mainly focused on income and educational sorting and its distributional consequences, we investigate whether people marry into "old" or "new" money using wealth tax data. We show that affluent people tend to marry each other. However, the similarity in own wealth ("new money") is significantly more pronounced than in terms of potential inheritances ("old money"). This is reflected in the distributional consequences. We measure a mating-induced increase in the Gini coefficient and the top wealth shares for own and parental wealth. Nevertheless, the distributional effect at the parental level is significantly smaller. It amounts to only half the size of the effect on spouses' wealth. That is, marriages into new money are substantially more common than marriages into old money. We show that intergenerational social mobility is the mechanism underneath this pattern. The saying "Birds of a feather flock together" also holds true for wealth. However, this similarity is particularly pronounced in the case of own wealth and only to a much lesser extent in the case of parental background. If there were no intergenerational social mobility, the similarity in parental background would be the same.

While marriage behavior increases inequality, its interaction with social mobility prevents the cementation of dynasties. Therefore, it is crucial to measure the distributional impact of marital sorting more dynamically by considering at least two successive generations. We conclude that thanks to intergenerational social mobility, we no longer live in Habsburg times, in which dynasties are preserved through targeted marriage behavior. For future studies, we suggest investigating after how many generations this effect completely dilutes. Our finding that significantly more couples marry into new money than into old money is also relevant for tax policy.

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Appendix

Dataset

We base our analysis on a comprehensive Swiss database that combines harmonized cantonal tax data with data supplied by the Federal Statistical Office, the Central Compensation Office and the State Secretariat for Economic Affairs. The different data sources are linked using anonymised old age insurance numbers. This database is maintained by the Swiss Federal Social Insurance Office and known as the database on the economic well-being of the working- and retirement-age population (WiSiER). The entire dataset at hand contains 8.9 million observations for 1,089 variables and covers the period from 2011 to 2015. In addition to various indicators such as income, wealth, or education, the dataset also includes essential information on family structures.

Tax data

We use tax data from 7 out of 26 cantons. The dataset would, in principle, include tax data from 11 cantons. However, only 7 of the 11 cantons consented to the use of the data for our analysis. Therefore, the tax data of Aargau, Bern, Basel-Landschaft, Basel-City, Bern, Lucerne, St. Gallen, and Valais remain in our dataset. The tax data represent a full census at the cantonal level covering all permanent residents over the age of 18. Because different datasets are linked, even employees of international organizations based in Switzerland who are exempt from income tax are part of the database. Besides, income data for persons residing in Switzerland without a C residence permit are also available. These incomes are subject to the so-called tax at source, which consists of the employer withholding a part of the salary, possibly together with a subsequent tax return, confirmed by the tax authorities. Finally, foreigners subject to lump-sum taxation are also part of the dataset at hand. Nonresident foreigners who are not gainfully employed are taxed on

their expenses, which are estimated by the tax authorities according to lower limits set by the administration (current minimum assessment basis at CHF 400,000) (Wanner, 2019).

The taxation of individuals on income and wealth is based on a tax declaration filled in by the taxpayer for the year in question and confirmed by the tax authorities. If a taxpayer does not file his tax return - a rare situation - he is taxed by the tax authorities on the basis of the available information and is therefore still included in the dataset (Wanner, 2019). Even those who earn no taxable income in a given year must file a tax return and are thus part of the dataset. Wealth tax data stem from cantonal tax records that vary across cantons. However, they have been harmonized and cleaned for the WiSiER dataset (Wanner, 2019). In contrast to survey data, tax data have the great advantage of capturing the entire distribution and, therefore, also the top and bottom incomes and wealth. Since the distribution tails are of particular interest for studies on inequality effects, it seems advantageous to extract incomes and wealth from the tax data.

In our dataset, only the tax situation of deceased persons or of persons who emigrated abroad or to a non-covered canton during the year cannot be taken into account in the analysis in the respective year. A condition for consideration is that the individual is resident in one of the seven cantons' territory at the end of the respective year.

Additional tables and figures

Table A1: OLS regression

	Dependent variable: Status of women			
	Wealth	Wealth	Parental wealth	Parental wealth
	(1)	(2)	(3)	(4)
Log-log-regression:				
Wealth of men	0.481***	0.449***	0.117***	0.102***
	(0.005)	(0.006)	(0.008)	(0.008)
Constant	5.322***	3.161***	10.579***	7.061***
	(0.054)	(0.097)	(0.093)	(0.220)
Controls for age	no	yes	no	yes
Observations	26,097	26,097	16,482	16,482
Rank-rank-regression:				
Wealth of men	0.457***	0.428***	0.130***	0.087***
	(0.005)	(0.005)	(0.007)	(0.007)
Constant	8,712.420***	16,521.960***	9,244.824***	24,831.140***
	(92.013)	(301.681)	(83.454)	(460.785)
Controls for age	no	yes	no	yes
Observations	32,112	32,112	21,249	21,249

Notes: *p<0.1; **p<0.05; ***p<0.01

Table A2: Sensitivity of the change in the Gini coefficient and the top 1% share

	Couples		*Parents of couples*	
	Δ Gini (%)	Δ Top 1% (%)	Δ Gini (%)	Δ Top 1% (%)
Baseline estimates:	4.98	1.30	1.70	0.67
R1: gross wealth	5.06	1.51	2.39	0.69
R2: age couples 25-44	4.59	0.66	1.31	0.68
R3: non-retired parents	10.09	1.20	1.41	0.89
R4: Swiss nationality	4.98	1.30	1.70	0.67
R5: parents with only 1 child	6.95	0.96	2.18	3.39

Notes: This table shows the effects of assortative mating on wealth inequality for both couples and the parental level for the conducted sensitivity checks. The percentage change in inequality is expressed in terms of the Gini index change. As in the principal analysis, it results from comparing actual mating with the random mating situation.

Marry into new or old money? The distributional impact of marital decisions from an intergenerational perspective

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Additional figures and tables

Figure OA1: Boxplot for own wealth and potential inheritances

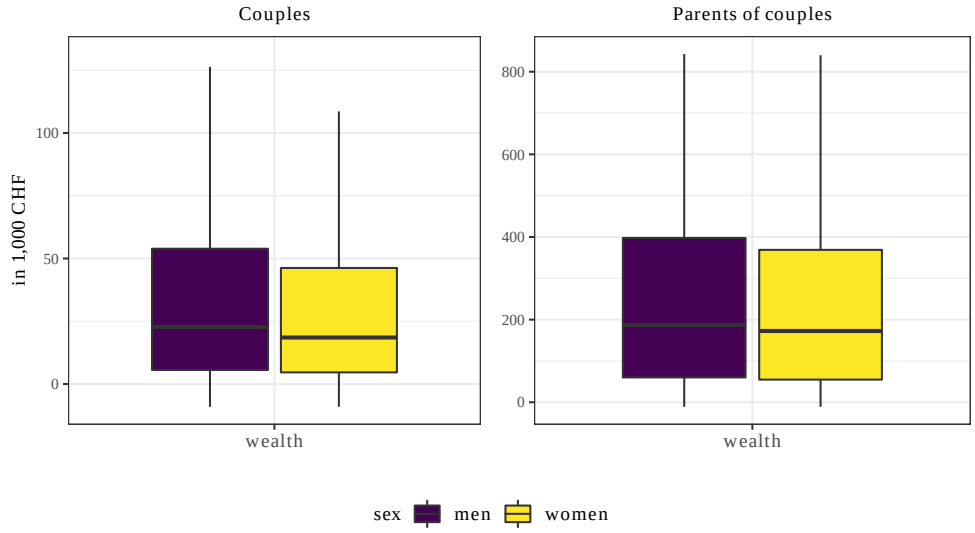


Figure OA2: Excessive mating ratio for status measures in percentiles (top/bottom)

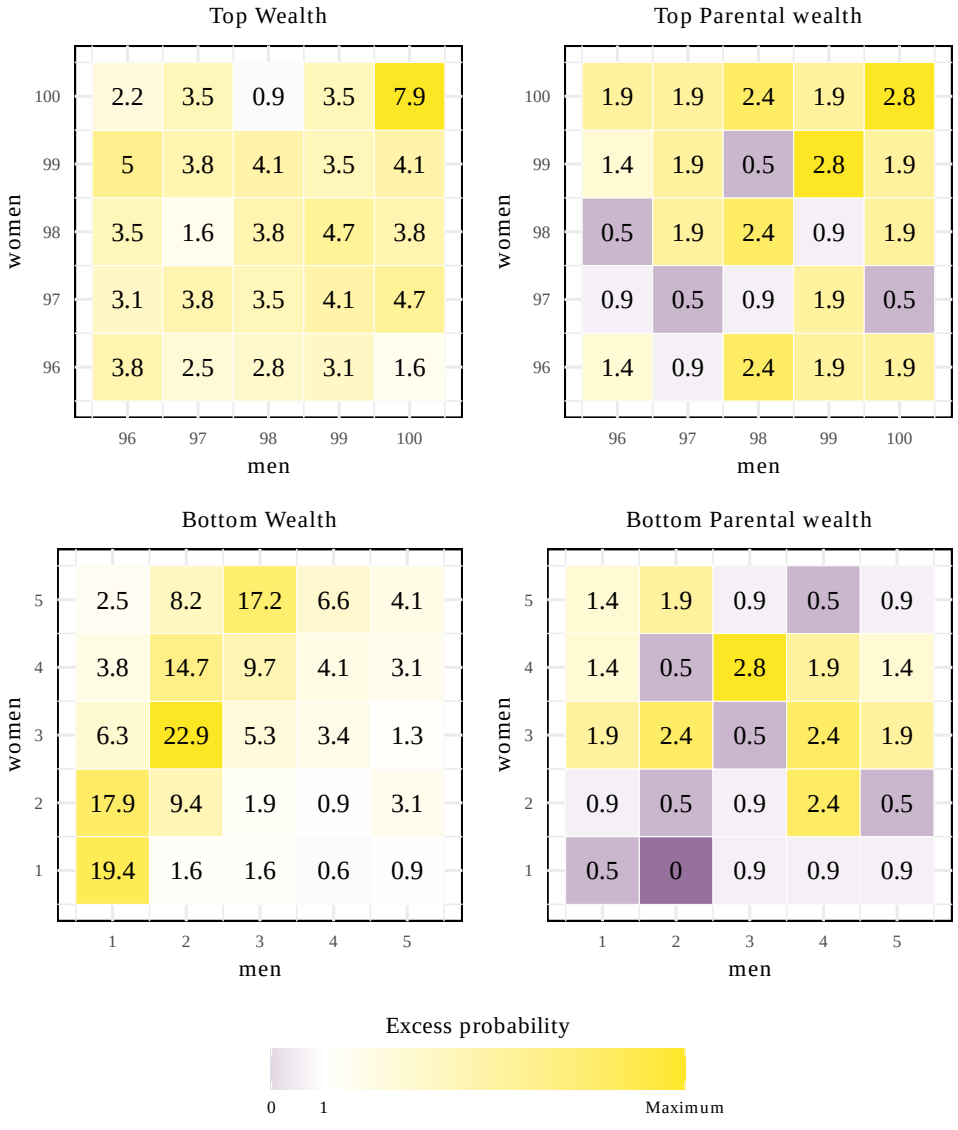


Figure OA3: Excessive mating ratio for measures in 5%-shares (top/bottom)

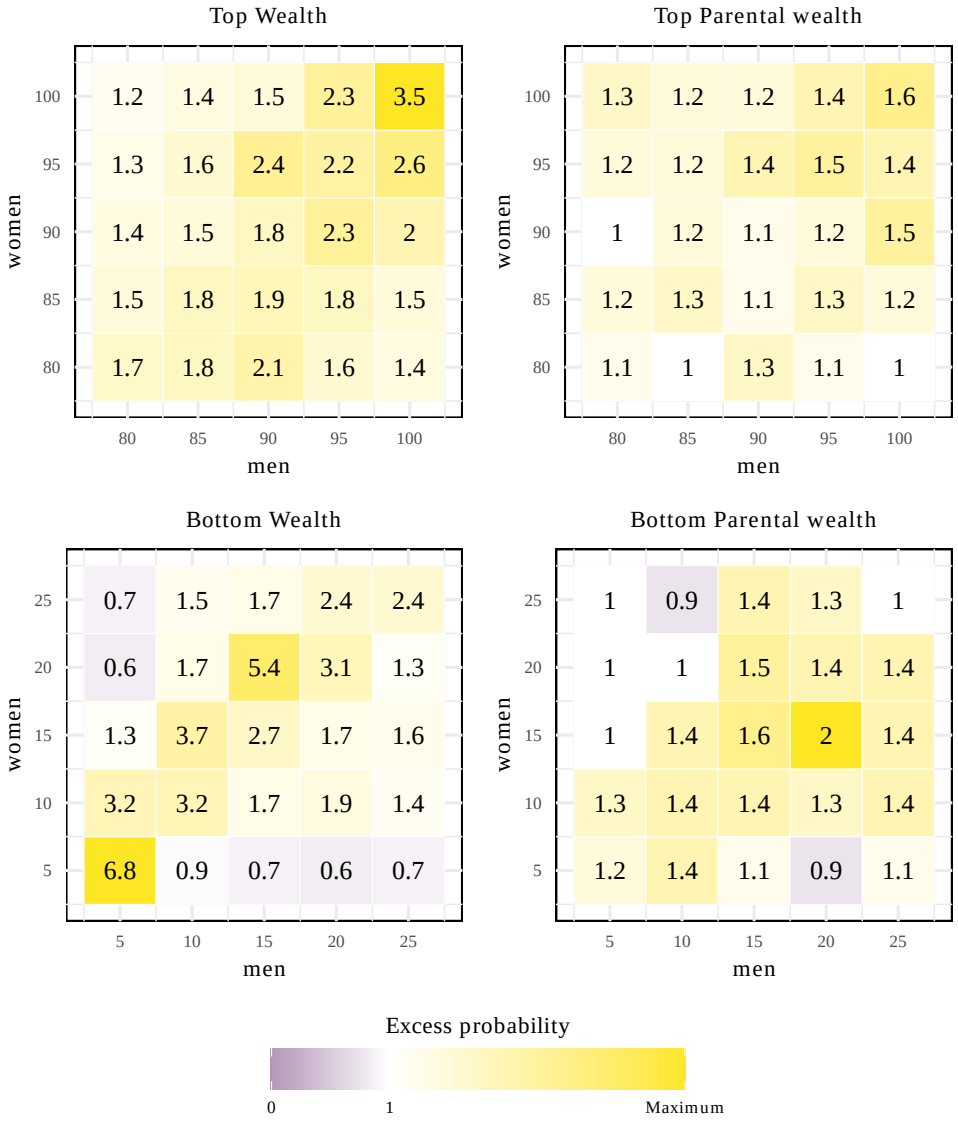
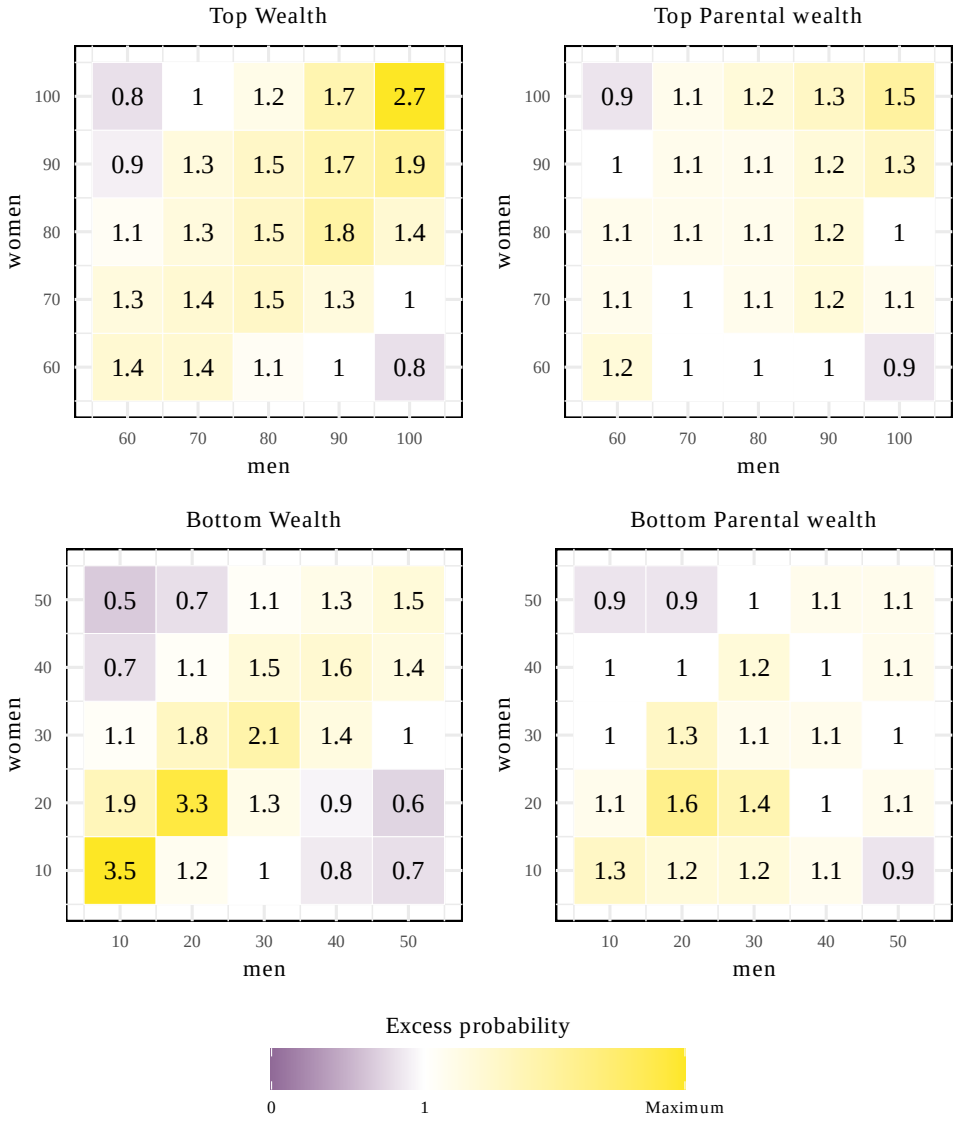


Figure OA4: Excessive mating ratio for status measures in 10%-shares (top/bottom)



Details of Robustness checks

R1: Gross wealth instead of net wealth

Figure OA5: EMR.

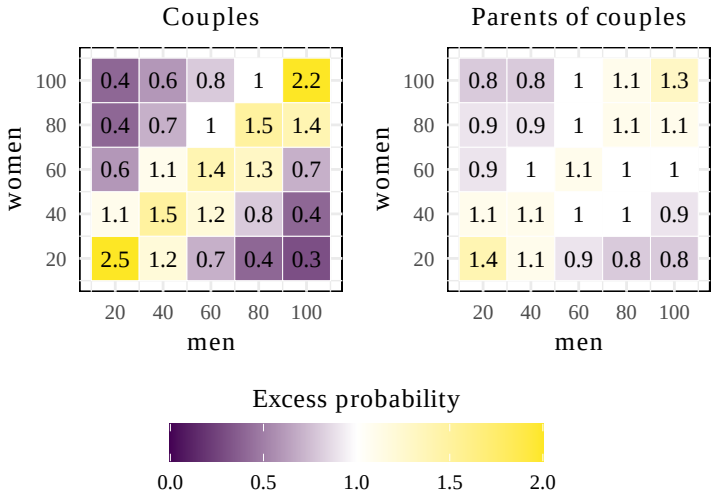
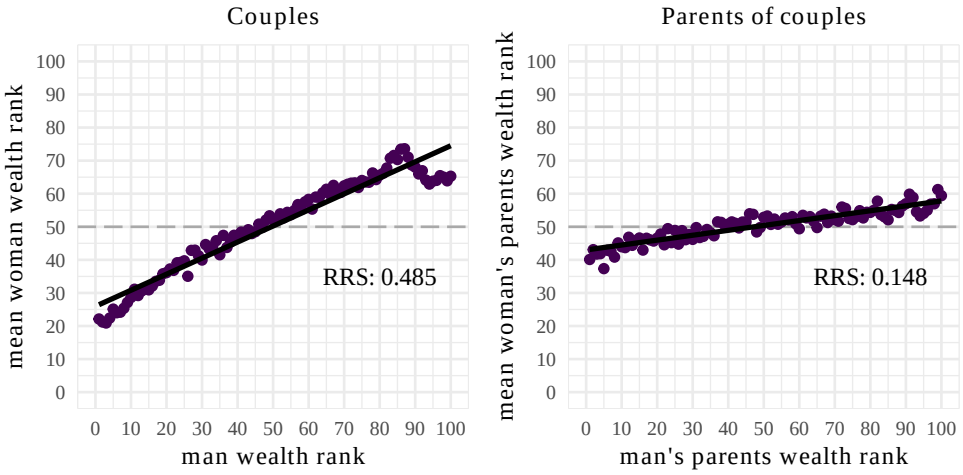


Figure OA6: Rank-rank regression.



R2: Age of couples 25-44

Figure OA7: EMR.

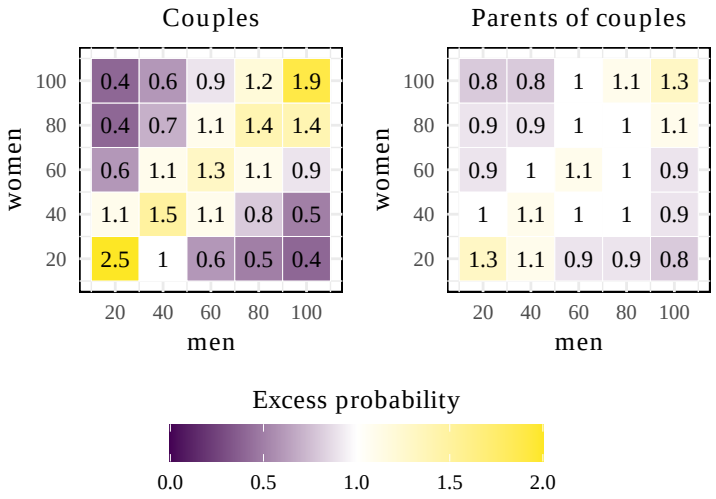
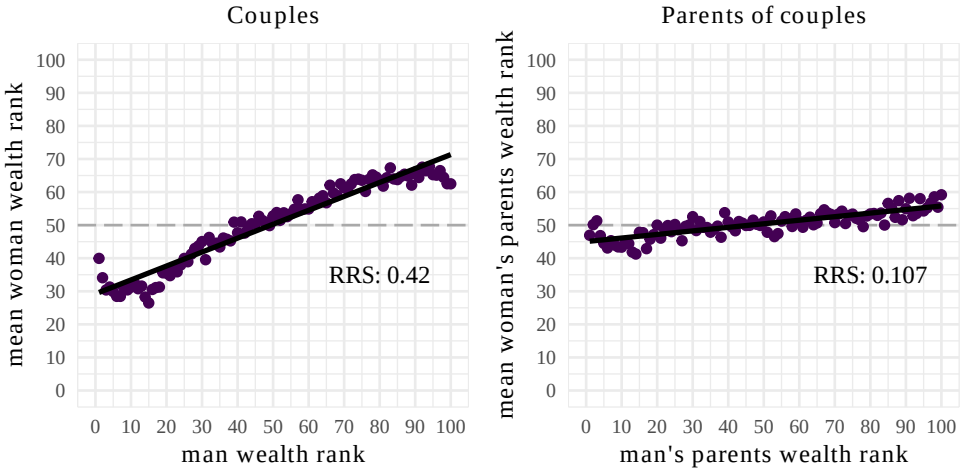


Figure OA8: Rank-rank regression.



R3: Parents below the ordinary retirement age (64 or 65, respectively)

Figure OA9: EMR.

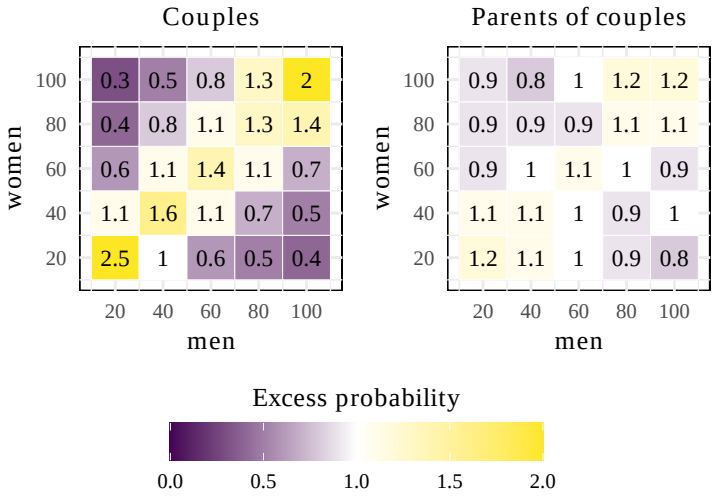
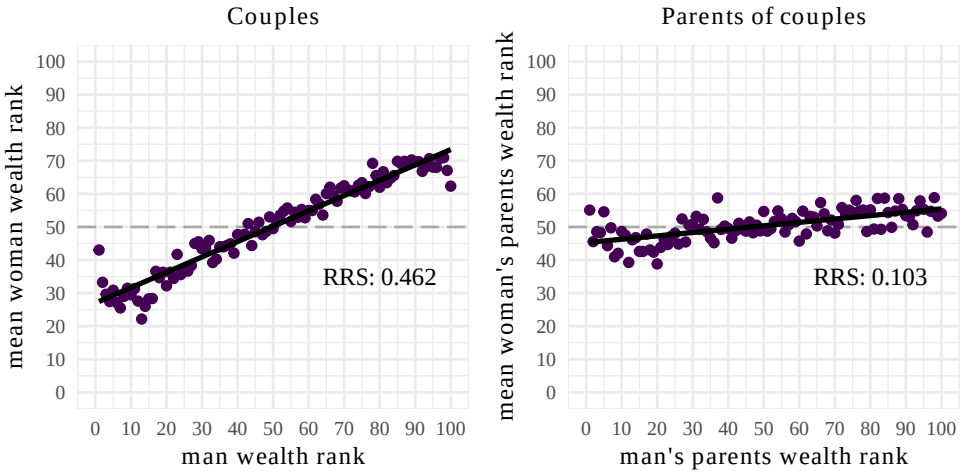


Figure OA10: Rank-rank regression.



R4: Swiss nationality

Figure OA11: EMR.

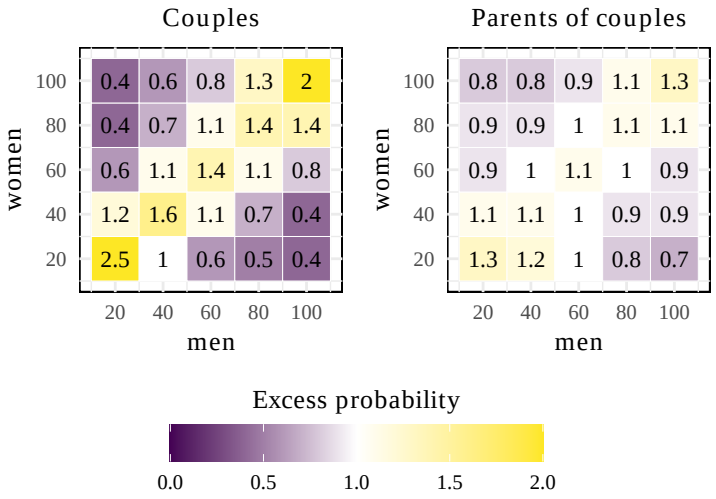
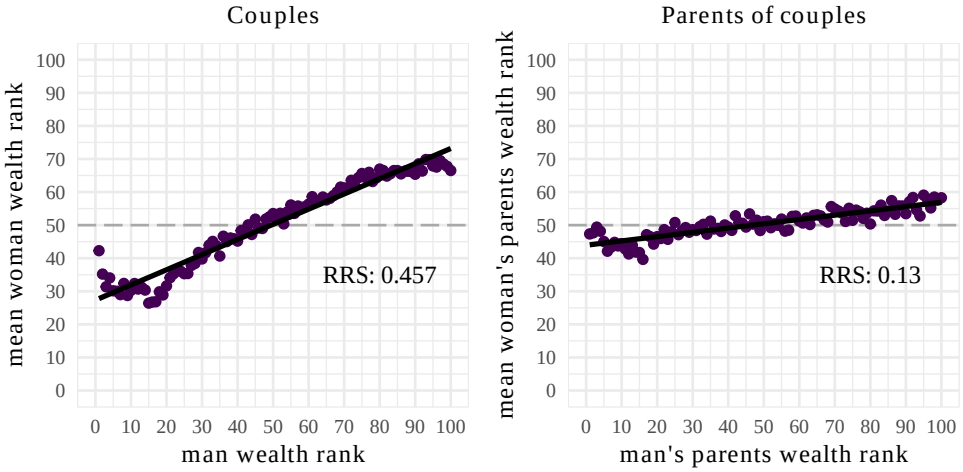


Figure OA12: Rank-rank regression.



R5: Parents with only 1 child

Figure OA13: EMR.

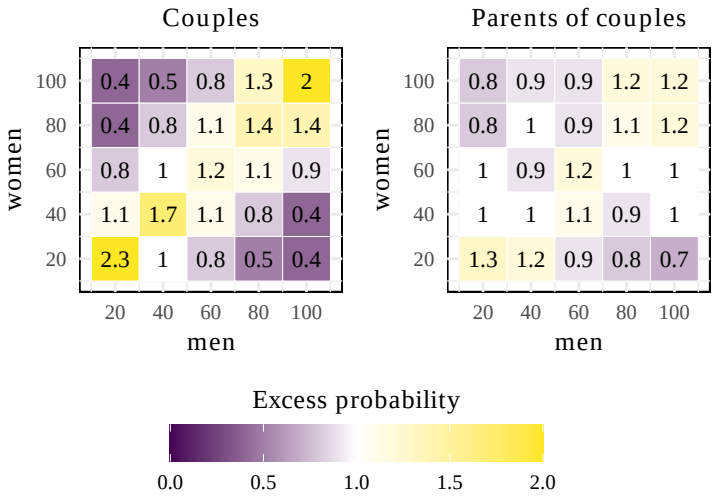


Figure OA14: Rank-rank regression.