The Conformity-Risk Paradox: Why Increasingly Risky Mortgages Are Acquired By Increasingly Risk-Averse Consumers

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Late adopters of innovation are more conformist and risk-averse than early adopters (Rogers, 2000). In markets where product risk rises over time, this leads to a conformity-risk paradox: increasingly risky products are acquired by increasingly risk-averse consumers. We show how the paradox contributed to risky mortgage borrowing before the crisis.

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EXTENDED ABSTRACT

According to the ‘financialization of everyday life’ theory, consumers took increasingly risky mortgages before the crisis because of the emergence of a new financial culture that promoted growing risk-tolerance (Aalbers 2008; Fligstein and Goldstein 2015). Rogers’ (2010) theory of the diffusion of innovation would imply a reverse trend: that late adopters are more conformist and, by extension, more risk-averse than early adopters.

While in most markets product risk is constant or decreases over time (i.e. surgeries get safer as expertise accumulates, etc.), in some markets, product risk increases. The mortgage market of the 2000s was one of such markets. In these markets, the conformity-based explanation implies a paradox relationship between risk-tolerance and actual riskiness of products: increasingly risk-averse consumers should hold increasingly risky products simply because they jumped later on the bandwagon. We call this the conformity-risk paradox.

We test this paradox through the case of mortgage borrowing, examining two hypotheses:

Hypothesis 1: Increasingly risky mortgages were not taken by increasingly risk-tolerant consumers over time.

Hypothesis 2: Increasingly risky mortgages were taken by increasingly conformist consumers over time.

Methodology

Our test case is the Hungarian mortgage market between 2000 and 2010, which meets the criteria of becoming increasingly risky over time (Balás et al. 2015). Mortgage borrowing was practically non-existent before 2000 in Hungary (Pellandini-Simányi et al. 2015), hence the case also meets the criteria of being a new market. We used a survey with 189 mortgage borrowers, using face-to-face interviews and random walk sampling method. The sample is representative of mortgage borrowers in Hungary in terms of age, education and settlement type (Balás et al. 2015).

We used four variables:

1. **Time of acquisition of the mortgage**

2. **Actual mortgage risk**

We composed this variable based on three features:

(1) Denomination: based on the historical standard deviation of exchange rates HUF = 1, EUR = 2, CHF =3 and other FX (JPY loans) = 4.
(2) Interest rate type: Variable =4, fixed=2.
(3) Payment-to-Income ratio: below 10%=1, 10%-33%=2, 33%-50%=3, above 50%=4.

The riskiness score is the sum of the above, taking values from 3 to 12.

3. **Borrower’s risk tolerance**

We used a modified version of the question for investment risk tolerance of the American Survey of Consumer Finances:

Imagine that you need a loan. Which of the following statements on this card comes closest to the amount of financial risk that you are willing to take when you borrow money?

1. Take substantial financial risk expecting to pay substantially lower installments
2. Take above average financial risks expecting to pay below the average installments
3. Take average financial risks expecting to pay average installments
4. Not willing to take any financial risk

We further asked respondents how they would have answered the above question at the time when they acquired their mortgage, and if it differed, used that answer in the analysis.

4. **Borrower’s conformity**

We define conformity as a tendency to follow other people’s behaviour and opinions as opposed one’s own judgement. People may choose mortgages because their friends and acquaintances do so. We measured this aspect by asking respondents how many people they knew who held a similar mortgage at the time when they acquired it (none= 0; one or two =1; many=2). Moreover, conformity is at play when people assess the riskiness of the mortgage based on the behavior and advice of others, such as friends, acquaintances or bank clerks, rather than their own assessment. We thus asked respondents who considered their mortgage low-risk (more than 90% of the sample) to indicate the influences on their assessment (yes=1; no=0):

I considered the mortgage low-risk because...

- many of my acquaintances, friends held a similar mortgage.
- people whose opinion I respect suggested that it is not risky.

The conformity score is the sum of these two, taking values between 0 and 2.

**Analysis**

Hypothesis 1: Increasingly risky mortgages were not taken by increasingly risk-tolerant consumers over time.

Our data shows a steady increase of riskiness of mortgages between 2000 and 2008 (from 5.5 to 8.4). Yet risk-tolerance remained consistently low: between 1.6 and 1.8 in all periods between 2003 and 2010, with even a minor, temporary decrease in 2005-6 (1= zero risk-tolerance, 2= average risk tolerance out of 4). Individual-level differences between one’s self-assessed risk tolerance and the risk of one’s mortgage (labeled ‘risk attitude-behaviour gap’ (ABG)) shows a steady upward trend from 4.2 to 6.4 between 2000 and 2008. These
findings confirm our hypothesis that increasingly risky borrowing was not accompanied by an increase in risk tolerance.

Hypothesis 2: Increasingly risky mortgages were taken by increasingly conformist consumers over time.

Borrowers on average had a high number of acquaintances with similar mortgages when they acquired their mortgage, suggesting an element of herd behavior. 90% of borrowers thought that their mortgage was low-risk, mainly based on the behavior and opinion of others. Conformity is high (above 0.9 between 2000 and 2004 and 1.2 between 2005 and 2008 on a scale of 0 to 2) throughout the period, with a slight decrease in 2007-8. Analyzing conformity by risk category shows that conformity tends to be higher for higher risk products, lending support to our hypothesis that increasingly conformist consumers took the increasingly risky mortgages. This is supported by the result that people of higher conformity levels have a significantly higher risk attitude-behaviour gap (t-test statistics, significant at p<0.05). To further test this finding, we ran an ordered logit estimation for the actual risk of the mortgage as dependent and the conformity index as independent variable, and gradually included risk-tolerance, age (at the time of borrowing), settlement type, education and income as control variables. Even after including all controls, a significant positive (0.529) relationship remained between conformity and the riskiness of the mortgage.

The widening attitude-behaviour gap has several alternative explanations, which we excluded. First, it may be caused by a cohort effect: older people tend to be more risk-averse, hence an increase in the average borrower age would also lead to decreasing risk-tolerance over time. T-test statistics, however, show that the average age (mid-thirties) of borrowers did not change significantly over the period. Second, the widening gap may be caused by the subprime extension of the market towards people of lower socio-economic status. Low SES status borrowers are more risk-averse (Pellandini-Simanyi and Banai 2017); yet they only have access to higher risk financial products. Thus, more low-SES borrowers entering the market over time may lead to a widening attitude-behaviour gap. This explanation, however, does not apply for the Hungarian case. The average income and labor market position of households taking mortgages did not change significantly over the period; even, after 2007, high income households’ mortgage debt grew even quicker than that of low income households (Tóth and Medgyesi, 2010; Balás, Banai and Hosszú 2015).

Conclusion

Theories of the proliferation of risky mortgages suggest a shift in attitudes, either through the ‘financialization of everyday life’ (Fligstein and Goldstein 2015) or through meaning-making processes that normalized risky mortgages (Peñalolza and Barnhart 2011). Our study shows that meanings need not change for consumers to acquire risky products. Consumers did not see risky mortgages as increasingly normal, but rather, mistakenly, as low-risk, inferred from the behavior and opinion of others. Paradoxically, increasingly risky mortgages were acquired by increasingly risk-averse consumers. Thus, instead of a shift in attitudes, the attitude-behavior gap opened further over time.

Our findings are consistent with Roger’s (2010) diffusion of innovation theory, suggesting that less conformist and more risk-tolerant consumers adopt new products first, followed by more conformist and risk-averse adopters. We extend this by arguing that in (1) markets of increasingly risky offers and (2) high information asymmetry, this results in a conformity-risk paradox: the adoption of increasingly risky products by increasingly risk-averse consumers, who jumped later the bandwagon.

REFERENCES


