

# The Market Dynamics of Collective Ignorance and Spiraling Risk

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In some markets, offerings become riskier over time as producers introduce new versions that are made more affordable by increasing their risk. Existing theories suggest consumers adopt riskier versions either because they become more risk tolerant or they trade higher risk for lower price—both of which presume consumers know the risks. We reveal a third explanation: evolving market dynamics that increasingly encourage consumer inattention to risk and produce “collective ignorance.” We identify factors of collective inattention and propose a three-stage model of development of collective ignorance by analyzing the case of risk buildup in the Hungarian mortgage market. Data include archival materials and interviews with borrowers, lenders, and regulators. Initially, producers offer low-risk products, and social, cultural, and institutional factors encourage attention to risk. Consumers attentive to and capable of assessing risk become early adopters. Over time, increasing adoption and changes in market factors divert consumers’ attention from risk, shifting it to price. Under insufficient regulation, risk escalates: producers repeatedly cut price by offering increasingly risky products, while rising collective ignorance leads even risk-averse consumers to adopt them. We offer theoretical contributions to research on the social construction of risk, the attitude–behavior gap, and neoliberal responsabilization.

**Keywords:** social construction of risk, personal finance, regulatory failure, risk competition, market system dynamics

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Noémi, a 39-year-old administrator living with her husband and two children in Budapest, Hungary, received a phone call from a debt collector in late 2011. She was told that their home was being foreclosed and they may be evicted. The notice did not come as a surprise. It had been 3 years that they had been unable to consistently make the required payments on the mortgage they had taken out in 2006, and they had been receiving phone calls urging them to pay almost every week. In retrospect, the mortgage was a risky financial choice. While they received their salaries in local currency, the Hungarian Forint, they had taken a mortgage denominated in Swiss francs, benefiting from the low Swiss interest rates at the time. Three years later, when the value of the Forint dwindled against the Swiss franc, their outstanding balance and monthly repayment amount doubled, and they could no longer make the payments. Market reports of the time attest that they were not alone in their risky choice of a foreign currency (FX) mortgage. Between 2002 and 2010, the number of FX mortgages issued far surpassed the number of safer, local currency ones (Banai, Király, and Nagy 2011). Risks

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materialized from 2009 to 2010, and by 2011, every tenth FX mortgage borrower had defaulted and every fourth borrower was in arrears (MNB 2014).

While in many markets products and services become safer in the long-run, often due to tightening product safety regulation (CPSC 2022; Zick, Mayer, and Snow 1986), such short-term accumulation of risk is not uncommon. The U.S. subprime market experienced a similar period of snowballing financial risk in the 2000s as relatively safe mortgage-backed securities were supplanted over time by much riskier ones secured by an increasing proportion of subprime mortgages. Examples of accumulation of risk in a market can also be found for product quality and health risks. Automobiles became riskier as improvements to engine power outpaced innovations in safety features (Nader 1972) until regulations were implemented in the 1970s. Similarly, while plastic surgery is generally safe, an increase in availability of relatively inexpensive procedures at facilities that lack sufficient equipment and expertise has led to a rise in botched surgeries (British Association of Aesthetic Plastic Surgeons 2022). We label this phenomenon a “risk buildup,” which we define as the accumulation of risk in a market as producers introduce and consumers adopt increasingly risky new product versions. Risk buildups are partly due to what legal scholars call “regulatory lag” (Moses 2013)—the pace of innovation exceeding that of regulation. Regulatory lag often occurs for new products (Moses 2013), and delayed regulatory response has been credited as one of the key causes of risk buildup in markets for subprime mortgages (Fligstein, Brundage, and Schultz 2017), antidepressants (McGoey 2007), and asbestos (Harremoes et al. 2002), and is raising concern in markets for AI technology (Du and Sen 2023).

While a lack of timely regulation can explain the availability of increasingly risky products, it does not fully explain risk buildups, which also require widespread consumer adoption of risky offerings. Existing theories suggest two explanations for why consumers accept high-risk products: increasing risk tolerance as consumers develop risk-tolerant identities (Celsi, Rose, and Leigh 1993; Thompson and Isisag 2021), and consumers who are not risk-tolerant nonetheless choosing a risky option in a benefit-risk trade-off (Chen and Zhang 2023). Both rest on the premise that consumers are aware of the risks. However, these accounts provide little guidance to explain what seems to have happened in the Hungarian mortgage market. While some consumers were indeed risk tolerant and some took risks as a calculated trade-off for lower prices, parliamentary hearings (PB 2012, web appendix E), extant surveys (Pellényi and Bilek 2009), and our own data attest that the majority of borrowers were risk averse, yet took great risks because they simply did not know that their mortgage was risky. Departing from studies of discrepancies between consumers’ attitudes and purchase behaviors known as the attitude–behavior gap (ABG) (Carrington, Neville, and

Whitwell 2014; Devinney, Auger, and Eckhardt 2010; Tezer and Bodur 2019), which have focused on the individual level, we investigate the production of such discrepancies at a collective scale—specifically, through the development of *collective ignorance* of risk.

The social construction of knowledge has received ample scholarly attention, in large part thanks to Foucauldian analysis. Ignorance, in contrast, has been considered less worthy of investigation (McGoey 2007), as it is often assumed to be a default state of lack of information. Notably, risk buildups rarely occur in a complete absence of information about risk. Studies of instances of accumulated risk (Harremoes et al. 2002) identify whistle-blowers, including academics, practitioners, and consumers who warned of risks. For example, economist Nouriel Roubini warned of the risks of the U.S. housing market as early as 2005 (Fortune 2008), and the International Society of Aesthetic Plastic Surgery warned of the risks of non-certified doctors as early as 2014 (Marotta 2014). Similarly, in the Hungarian FX mortgage market, politicians and analysts warned of risks, especially toward the end of the period, and borrowers were even given a mandatory warning of the risks of exchange and interest rate changes before signing their contracts (Gárdos and Nagy 2013; Kovács 2013). Nonetheless, the vast majority of consumers in the Hungarian mortgage market remained ignorant of the risks (PB 2012; Pellényi and Bilek 2009), raising the question of how this ignorance was maintained at a collective scale.

Extant theory of consumer information search suggests that risk warnings would be valued and heeded by most consumers, so long as the cost of obtaining them is relatively low (Somin 2015). In contrast, sociological theories of risk assert that ignoring risk information is an essential, necessary feature of modernity—without which continuing daily life would be impossible (Beck 1992; Giddens 1990). To drink a glass of water, we must ignore information suggesting it may contain pollutants. To use mobile phones, we must ignore information that suggests they emit risky radiation. To feel comfortable giving birth in a hospital (Thompson 2005), we must ignore information about failures and complications during hospital births. Giddens (1990, 81) refers to this phenomenon as “civil inattention”—the collective practice of not paying attention to risk information that relates to large-scale, expert-controlled systems that people in modernity are required to trust. He uses the word *inattention* to indicate that, rather than assessing risk information and determining that risks are too small to be worthy of their time, consumers do not give attention to this type of risk information, and thus never assess its significance. This civil inattention, according to Giddens, creates collective ignorance of specific risks, which as we will show, was central to risk buildup in the Hungarian mortgage market.

While Giddens clearly shows how inattention functions and why it may be needed, he says little about the process

through which collective inattention and, ultimately, collective ignorance develop, or the roles that various actors play in the process. These questions are also outside the scope of psychological theories of attention (Celsi and Olson 1988). These theories provide useful insights into factors that influence attention at an individual level but do not explain the development and maintenance of *collective* inattention and ignorance, or answer the question of why, in some markets, inattention to specific risks becomes widespread while other risks are attended to, assessed, and managed. We approach collective inattention to risk not as the aggregation of individual phenomena, but instead as a socially sanctioned process that relies on social, cultural, and institutional mechanisms that create and maintain it on a societal scale.

In this research, we investigate the dynamics of the development of collective ignorance and risk buildup in a market. We draw on prior research on the institutional processes that allow consumers to ignore specific risks (Humphreys and Thompson 2014; Wong and King 2008), the sociology of risk (Beck 1992; Giddens 1990), and recent research on the sociology of ignorance (Gross and McGoey 2015). The third suggests that rather than a passive, default state, ignorance is socially constructed, and creating and maintaining ignorance requires equal or more work from social and institutional actors than the production of knowledge. Methods include analyzing qualitative interviews with borrowers, lenders, regulators, and policymakers, as well as archival data from the Hungarian subprime mortgage market between 2001 and 2010—the period of issuance of increasingly risky mortgages to a growing customer base of both subprime and middle and high-income borrowers. Based on these data, we develop a market system dynamics account and three-stage process model of mutually reinforcing social, institutional, and cultural dynamics that foster both the availability of increasingly risky products and the construction and maintenance of collective ignorance of their risks, resulting in a spiral of risk buildup. We contribute to extant literature in three ways. First, we theorize a shift in market system dynamics, from encouraging critical reflection to precluding it, as a mechanism for normalization of risky consumption. Second, we elucidate collective ignorance as a key contributor to inconsistencies between consumers' attitudes and behaviors. Third, we situate the role of collective ignorance in neoliberal responsabilization. In our conclusion, we explain implications for other markets in which offerings become increasingly risky over time.

## LITERATURE REVIEW

### Consumer Inattention to Risks

Much research on consumer collectives and risk has focused on how individuals make sense of risks through culturally constructed interpretative frames (Celsi et al. 1993;

Henry 2005; Peñaloza and Barnhart 2011; Thompson and Isisag 2021; Wong and King 2008) and internalize collective risk perceptions through embodied, practical, emotional “structures of feeling” (Thompson 2005, 238). These studies have focused on contexts where risks are apparent, explicit, and in the foreground of attention, such as risky sports (Celsi et al. 1993; Thompson and Isisag 2021) or medical decisions (Thompson 2005; Wong and King 2008). Less research has explored processes through which risks are ignored, sidestepped, minimized, and missed.

The individual-level consumer perception model that includes exposure, attention, and interpretation (Solomon et al. 2013) suggests lack of attention as a possible cause of missing information. It theorizes that consumers must give attention to information in order to perceive it. Existing studies of why consumers do or do not pay attention to available risk information suggest that attention depends on characteristics of stimuli, such as visual salience (Cian, Krishna, and Elder 2015), typicality (Folkes 1988), the representation of maximum or minimum values (Raghubir and Das 2010), or movement and variance over time (Kim and Lakshmanan 2021). Other work specifies the ways consumers' level of involvement (Celsi and Olson 1988), current needs, and prior beliefs and opinions about the information presented (Sanbonmatsu et al. 1998) affect attention. These studies provide key insights into (in)attention by individuals but do not address how inattention, and subsequent ignorance, is normalized in a community or market.

Collective failures to attend to risk information have been tangentially discussed by a handful of consumer culture theory work. Wong and King (2008) suggest that among breast cancer patients, the cultural narrative that cancer must be “fought” with bravery and resilience led to inattention to, and ignorance of, the risks of mastectomy. Humphreys and Thompson (2014) show how media, companies, and other institutional actors minimize the perception of oil spill risk by framing spills through the discursive strategies of a “disaster myth” (877) that implies that systemic risks can be contained by experts and ignored by consumers. We extend these works by investigating how consumers, marketers, and regulators interact to foster and maintain collective inattention to, and ignorance of, risk in a market. To do so, we also draw on sociological theories of collective ignorance of risk.

### Contributors to Collective Ignorance of Risk

Sociology scholarship provides insight into potential contributors to collective ignorance of risk, including shared interpretive schemes, civil inattention, and the benefits of ignorance to strategic interests. First, studies on *epistemic communities* of collective ignorance suggest that organizations' and communities' shared interpretative schemes and understanding of reality—an idea of Truth

with taken for granted elements that are beyond debate—may produce collective areas of ignorance (Engelen et al. 2012; Fligstein et al. 2017). For example, research on the 2008–9 financial crisis highlighted collective cognitive silos—areas of ignorance that went unquestioned until the crisis (Tett 2015). These collective areas of ignorance stemmed from a maze of data and statistics creating information overload; the distance between the actors assessing risks and the realities of markets (Engelen et al. 2012); and the widespread use of particular practical, socio-material tools, such as financial models, that emphasized some data and results as worthy of attention while deeming others irrelevant (MacKenzie and Spears 2014). These studies highlight that the more widespread collective ignorance becomes, the more difficult it is to challenge—even if data are readily available.

Second, scholarship on risk in modern societies (Beck 1992; Giddens 1990) has conceptualized the imperative to trust and associated widespread, civil inattention to risks by consumers as contributors to collective ignorance. As noted by Humphreys and Thompson (2014, 881), modernity imposes a “structural imperative to trust” in which the “institutional relationship is not so much one where consumers extend trust, but one where their dependence on expert systems demands trust.” Not trusting would make life impossible and would create “existential angst” (Giddens 1990, 100). In addition to the trust imperative, modernity nurtures collective inattention to, and ignorance of, risk by fostering numbness to risk information. Individuals are constantly bombarded with information about large-scale, lethal, collective risks that threaten entire communities and even the survival of humanity as a whole—such as the risk of climate catastrophe, nuclear war, and air and water pollution (Beck 1992). People thus live their lives in “anticipation of catastrophe” (Beck 2006, 332), hoping that experts will effectively manage these systemic risks that are beyond individual control. Giddens (1990) argues that being constantly informed about such risks creates a numbness to risk information. Individuals are aware of it but desensitized to it such that risks recede into the inevitable background of everyday life.

Third, sociology of ignorance literature (Gross and McGoey 2015) identifies institutions’ use of *strategic ignorance* (McGoey 2007) as a contributor to collective ignorance. Ignorance may benefit institutions in at least two ways: by reconciling contradictory aims and by allowing the institution to avoid responsibility for bad outcomes. For example, a regulator tasked with ensuring both that products are safe and that the market for these products flourishes may, when these aims contradict one another, reconcile them by maintaining ignorance of the risks of profitable products. Such strategic ignorance may be intentional or unintentional, stemming from the daily practices of organizations. Consumers may likewise maintain ignorance in order to reconcile contradictory aims. For instance,

consumers’ “discounting practices” (Bernthal, Crockett, and Rose 2005), defined as debtors “discounting or systematically underestimating the difficulty involved in significantly reducing and/or eliminating credit card debt” (138) can reconcile the aim to maintain a desired lifestyle with the aim to one day be debt free.

In addition, ignorance implies not being liable for one’s actions (Luhmann 1998). For example, pharmaceutical companies that maintain ignorance of side effects of medicines may be able to escape responsibility or blame (McGoey 2007). Similarly, a bank claiming ignorance of the risks of its lending practices may evade legal action (Davies and McGoey 2012), while consumers claiming ignorance of borrowing risks may be viewed as victims worthy of protection rather than responsible for default. In such cases, ignorance is more valuable than knowledge (McGoey 2012). Notably, literature on strategic ignorance emphasizes its collective nature; organizations and entire sectors “band together in dismissing unsettling knowledge” (McGoey 2012, 570) and “the more pervasive strategic ignorance becomes, the harder it is to challenge or to expose” (570).

### Challenges to Collective Ignorance of Risk

Scholars have also identified challenges to collective ignorance of risk. First, while neoliberal market societies require inattention to risks whose mitigation would require systemic changes (Giddens 1990; Humphreys and Thompson 2014), such as risks to the environment posed by fossil fuels or fast fashion, other aspects of neoliberal ideology encourage individuals to embrace responsibility for risk management. Neoliberalism delegates tasks previously done by the state, such as pension planning, education financing, and fighting poverty and climate change, to individual consumers in a process labeled consumer responsabilization (Giesler and Veresiu 2014). This process also tasks consumers with managing associated individual and systemic risks in a phenomenon that Hacker (2008) describes as the “risk shift” and Calhoun labels “privatization of risk” (2005, 257). In responsabilization discourse, assuming responsibility for risks is framed as a form of freedom and empowerment (Beck 1992; O’Malley 2000)—a counter-discourse to the trust and inattention imperative.

Second, Giddens identifies groups within society that challenge mainstream inattention to specific risks by instead choosing “radical engagement” (1990, 137) with these risks. Thompson’s (2005) “communities of reflexive doubt” that question mainstream expert risk assessment and construct an alternative assessment and Atanasova, Eckhardt, and Husemann’s (2023) digital nomads, who try to avoid systemic risks through liquid consumption, are cases in point. These cases illuminate how a counter-imperative to civil inattention and conformity can be

created in the face of uncertainties of systemic risks and opaque expert systems. Scant research addresses which consumers are likely to engage in reflexive doubt. However, the assertion of autonomy and refusal of conformity that are clearly involved in reflexive doubt implicate consumers with high cultural capital, who are more likely to demonstrate autonomy in their choices (Bourdieu 1984; Holt 1998). This may be especially relevant in financial consumption, because autonomous assessment of financial risk requires financial literacy—a set of knowledge and skills closely related to higher cultural capital (Lusardi and Mitchell 2011).

Taken together, the above conceptualizations of collective ignorance of risk and critical engagement with risk rest on an understanding that ignorance is not a default, natural state. It must be fostered through institutionally sanctioned cultural narratives that prevent perception of specific risks and dismiss responsibility for assessing them. Once amassed, collective ignorance must be maintained against counter narratives of doubt, such as discourses of responsabilization, and communities of reflexive doubt. As Gross and McGoey (2015, 5) suggest, “Ignorance is not a motionless state. It is an active accomplishment requiring ever-vigilant understanding of what not to know.” In this research, we investigate the market dynamics among marketers, consumers, and regulators that fostered and maintained collective ignorance of risk in the Hungarian mortgage market, contributing to large-scale risk buildup and eventual market collapse.

## EMPIRICAL CONTEXT

We examine the rise of collective ignorance in the context of the risk buildup of the Hungarian mortgage market between 2001 and early 2010, spanning from the early years of the post-socialist mortgage market until its crisis. While “mortgage lending” nominally existed during socialism, the loans were not mortgages in a legal sense, as they did not grant the lender priority in the payment order—the cornerstone of the legal notion of a collateral-based mortgage (Éliás 2000). Rather, these financial vehicles allowed consumers to acquire a home at a low, long-term fixed interest rate, functioning like a state subsidy channeled through the state-owned National Savings Bank (OTP). After 1989, mortgage lending came to a standstill due to high inflation and the lack of market institutions to fill the void left by the state-run economy (Hegedűs and Tosics 1990; Pellandini-Simányi and Vargha 2021).

Early post-socialist mortgages, launched in 2001 with a state subsidy and denominated in the local currency of Hungarian Forints (HUF), were low-risk, with a fixed interest rate. Starting in 2003, mortgage products became increasingly risky as typical loan-to-value and payment-to-income ratios increased, and banks began issuing loans in foreign currencies (Banai, Király, and Nagy 2012).

(We refer to mortgages issued in any currency other than HUF as FX mortgages.) Due to lower foreign interest rates at the time, FX mortgages were more affordable than those issued in local currency but carried the risks of both changes in the exchange rate and changes in the foreign interest rate. The proportion of FX mortgages increased substantially over time, amounting to three-quarters of the market by the beginning of 2010 (Pellandini-Simányi and Vargha 2020, web appendix A).

While consumers purchased increasing numbers of higher-risk, FX mortgages over time, they remained averse to financial risk throughout the period (figure 1, left), as revealed by a national representative survey conducted by the authors in 2016 (see methodological details in web appendix B). When asked about the amount of financial risk they were willing to take at the time of borrowing, the average response of FX borrowers was consistently between “not willing to take any financial risk” (33%) and “take average financial risks” (59%). The high proportion of risk averse consumers remained constant throughout the period, with only a small minority willing to take “above average” risks and no one willing to take “substantial risks” (figure 1, right). These findings are consistent with another representative survey (Pellényi and Bilek 2009) that found low levels of risk tolerance among FX borrowers—even lower than among local currency borrowers. The rising proportion of high-risk borrowing coupled with consistent risk aversion among borrowers indicates the development of widespread inconsistency between borrowers’ risk preferences and risk behaviors.

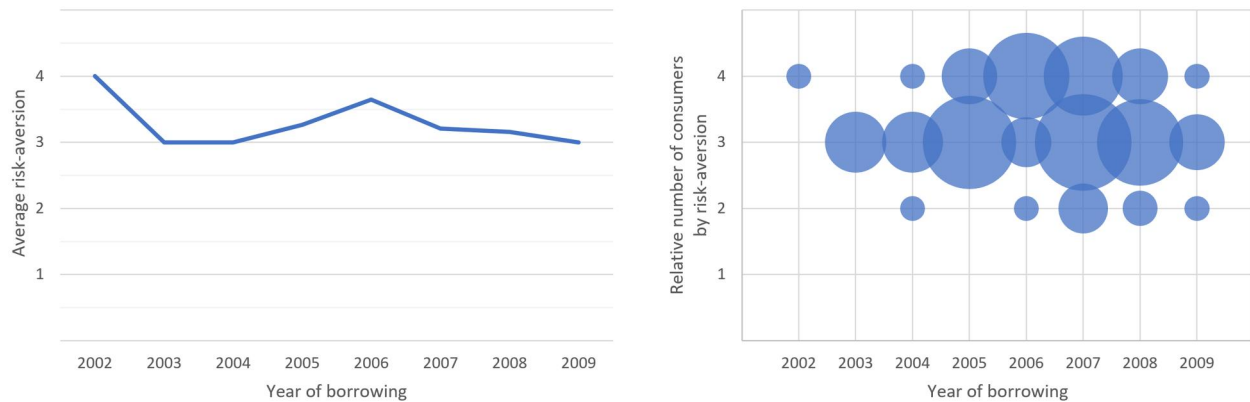
When we asked survey respondents if they believed that their mortgage suited their (low) risk preference, the majority (68%) of FX borrowers said that it did, 21% responded that they did not think about risks, and only 4.3% reported that they considered their mortgage too risky for their preference. These responses suggest that consumers’ adoption of risky mortgages hinged, at least in part, on their ignorance of the degree of risk, rather than on a calculated trade-off between high risk and low price. In addition, survey results showed that only 8.7% of FX borrowers considered housing price forecasts, indicating that borrowers were not making a calculated trade-off of higher risk for the potential of future gains.

## METHODOLOGY

To unpack the market and social dynamics that fostered collective ignorance of risk, we adopt a market system dynamics approach, in which markets are considered to be complex social systems shaped by economic, social, and cultural dynamics between actors (Giesler 2008; Giesler and Fischer 2017). Accordingly, we examine the motives and actions of borrowers, lenders, policymakers, and regulators, to trace their co-evolving dynamics over time.

FIGURE 1

## RISK-AVERSION OVER TIME AMONG HIGH-RISK BORROWERS



NOTE.—left: average risk-aversion over the period among high-risk borrowers; right: relative number of consumers by risk-aversion among high-risk borrowers over the period; risk-aversion: 1 = low; 2 = below average; 3 = high; 4 = very high.

We conducted 47 interviews with borrowers who took out mortgages at various times between 2001 and early 2010: 11 borrowed between 2001 and 2003, when low-risk (HUF) mortgages dominated the market; 15 between 2004 and 2006, when higher-risk FX mortgages began to overtake lower-risk mortgages; and 21 between 2007 and 2010, when high-risk FX mortgages dominated. The sample includes low (8), lower-middle (13), middle (15), and upper (11) income borrowers; and borrowers from the wealthier, urbanized capital city of Budapest (25) and the more rural and less wealthy countryside (22). (See [web appendix C](#) for more details.) We recruited borrowers through advertisements, social media, and debtor aid organizations. Interviews took place during 2014–2015 and elicited their mortgage stories from the conception of the mortgage until the time of the interview, including questions related to risk perception, attitude toward risk, and risk-handling. In presenting data, we identify borrowers by a pseudonym, year of borrowing, and currency in which the mortgage was issued, with foreign currency (FX) and local currency (HUF) indicative of higher and lower risk, respectively.

Data representing market institutions include 37 interviews with key decision-makers and other experts. Interviewees worked at banks in various mortgage-related functions (e.g., product development, risk management, marketing, branch management), at financial regulators (the Hungarian National Bank, Financial Supervisory Authority, Economic Competition Authority), at institutions that developed mortgage policy (Hungarian Parliament, the Ministry of National Economy and its

predecessor, the Ministry of Finance) and as real estate agents and mortgage lawyers ([web appendix D](#)). Additionally, we analyzed archival materials, including all Stability Reports of the Hungarian National Bank, annual reports of the Hungarian Banking Association, and transcripts of mortgage regulation debates of the Hungarian Parliament. All interviews were recorded and transcribed, except four expert interviews for which interviewees preferred written notes. Interviews were conducted, transcribed, and analyzed in Hungarian. Once analysis was complete, quotes were translated into English for inclusion in the manuscript. We identify expert interviewees by number, E1–E37, and quotes from Parliamentary debates by name and date (see [web appendix E](#) for full citations of parliamentary debates and other archival documents, identified by a superscript a.d. in the text).

We began the analysis using a grounded theory approach ([Glaser and Strauss 1967](#)) and observed a discrepancy between increasing supply-side risk and concurrent stable consumer risk-aversion, and the presence of collective ignorance. In 2016, we conducted the aforementioned representative survey to test our qualitative intuition that increasing risk-taking was not accompanied by increasing risk tolerance and that borrowers were ignorant of the risks. After the survey results confirmed these intuitions, we conducted a second round of analysis of the qualitative data, which focused on how collective ignorance emerged. In this round, we analyzed the consumer interviews in a sequential order, starting with the earliest borrowers and finishing with the last entrant in 2010 before the crisis. We conducted a thematic analysis ([Flick 2006](#)), focusing on

how borrowers assessed the risk of their mortgages, paying attention to the socio-cultural dynamics shaping the assessment, and the relationship between their self-described risk tolerance and mortgage choice. Further, we analyzed expert interviews and archive materials focusing on the dynamics among lenders and regulators that led to increasingly risky offerings.

## MARKET DYNAMICS OF COLLECTIVE IGNORANCE AND RISK BUILDUP

In this section, we present our three-stage market system dynamics model of social, institutional, and cultural processes that generate risk buildup in a market, including those that foster collective ignorance of risk. We begin with a broad overview. Then, for each stage, we explain the conceptual model and follow with our account of how these dynamics unfolded in the post-socialist Hungarian mortgage market, as evidenced by our data.

We theorize consumers' collective ignorance of risk as rooted in collective inattention to risk, which is an outcome of competing social, situational, and cultural factors that induce consumers to direct their attention to, or avert their attention from, risks (figure 2, bottom). Social factors include consumers' peer dynamics that allow or preclude inferences about risks from the behavior of others. Situational factors refer to industry-wide institutional practices and norms of the selling situation. Cultural factors include traditions, discourses, and narratives related to risk, which serve as cultural resources (Swidler 1986). While these often remain quite consistent over time, individuals draw on them differently based on their social position and the context.

Starting from the time when a new product is introduced, our model theorizes risk buildup through co-evolving (1) market dynamics among producers, consumers, and regulators and (2) social dynamics among consumers. Combined, these dynamics contribute to both increasing riskiness of available products and increasing collective ignorance among consumers of these risks. We label the three stages of our model the *low-risk period*, the *interim period*, and the *high-risk period* (figure 2, top). In the early, low-risk period of the market's development, producers offer low-risk products, attention-inducing factors outweigh attention-averting factors, and consumers' collective attention to risk drives collective caution—a heightened alertness to potential dangers of, and wariness toward, the product. Collective caution largely limits adoption to consumers using an approach to risk that we label *autonomous risk-assessment*. Their purchase triggers the entry of some consumers who infer low risk from others' prior purchase, rather than assessing risks themselves. We label this differing approach to risk *conformist risk-assumption*. In the interim period, producers start to offer more affordable, higher-risk product versions, which are adopted by the new

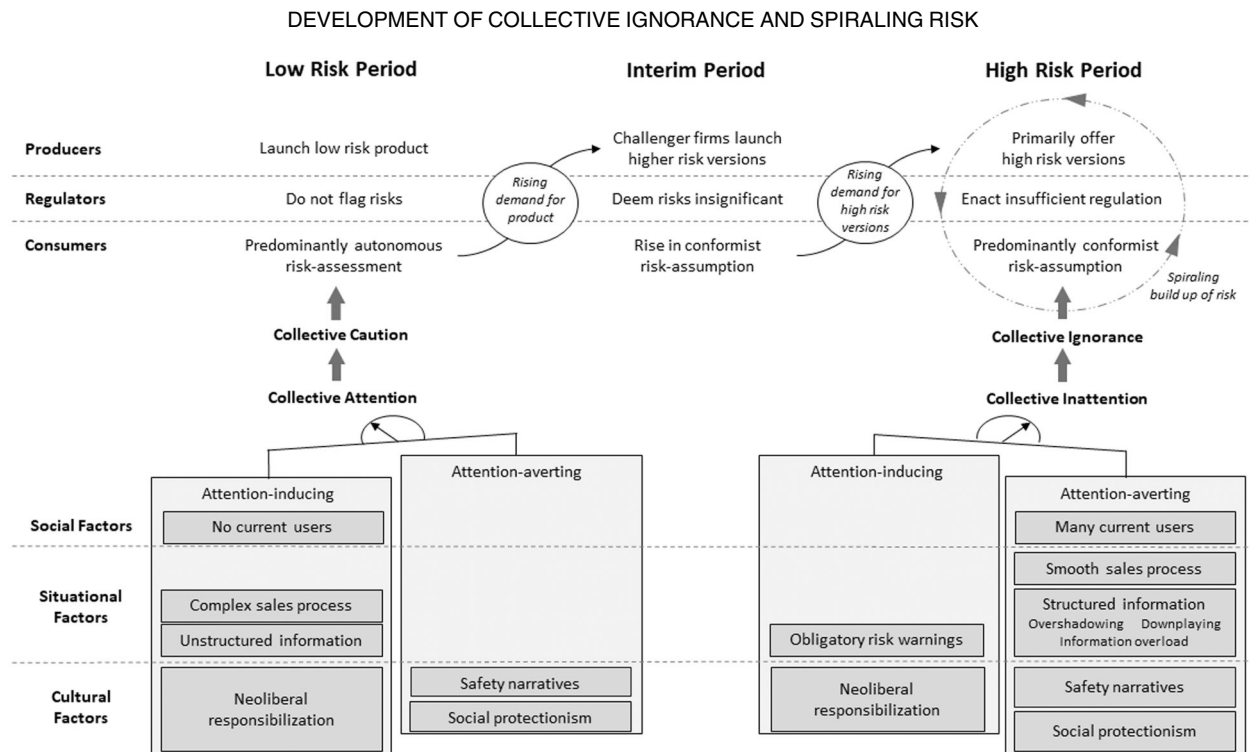
entrant conformist consumers, who are ignorant of their risks. Increasing use provides an even stronger sense of safety to conformist consumers, triggering further adoption. By the high-risk period, attention-averting factors outweigh attention-inducing factors, and collective attention and caution are replaced by collective inattention and ignorance of risk. In the absence of sufficient regulation, the market enters into a spiral of increasing risk fueled by the mutually reinforcing dynamics of collective ignorance among consumers and risk competition among producers.

### The Low-Risk Period

*Conceptual Model.* According to our model, risk spirals do not begin with high-risk offerings nor with collective inattention to risks. Initially, producers launch low-risk product versions that, rightfully, trigger no warnings of risks by regulators. These early versions are adopted by consumers who subject them, including their risk characteristics, to considerable scrutiny driven by uncertainty about novel products (Hoeffler 2003) and a set of factors that encourage collective attention to risks (figure 2, left). First, as a social factor, the lack of existing users prevents consumers from making any inferences about product safety based on peers' experience, inducing attention by leaving the question of product riskiness wholly unanswered. Situational factors further induce attention by reinforcing consumers' uncertainty. Because sellers have not had time to accumulate, fully comprehend, or organize information about the product in a format that is easy for consumers to understand, the buying situation is characterized by poor presentation of the little information that is available. Third, while both attention-inducing and attention-averting cultural factors are present, consumers who are willing to adopt the product despite initial uncertainty tend to draw on those that induce attention (indicated by size in figure 2). Specifically, they primarily draw on consumer responsabilization discourses (Giesler and Veresiu 2014) that task consumers with management of risks. Overall, attention-inducing factors outweigh attention-averting factors, resulting in collective attention to risk.

This collective attention leads to collective caution, as consumers view the new product with suspicion. While for many consumers this caution manifests as delaying purchasing, for those who are able and willing, caution leads to *autonomous risk-assessment*. This approach includes recognizing that a product may involve risk, proactively conducting meticulous research to acquire information on risk, independent evaluation of the riskiness of different options, carrying out calculations that account for risk, and questioning or contradicting advice about risk provided by peers or sellers (table 1). In this period, consumers who use this approach determine correctly that the product carries a low degree of risk, and they become early adopters.

FIGURE 2



Later in the low-risk period, a few consumers, who assume that usage by early adopters indicates product safety, adopt the product using *conformist risk-assumption*. Our label draws on [Lascu and Zinkhan's \(1999\)](#) definition of consumer conformity as “a change in consumers’ product evaluations, purchase intentions, or purchase behavior as a result of exposure to the evaluations, intentions, or purchase behaviors of referent others” (1999, 1). This approach involves limited research, relies mainly on word-of-mouth and observing others to make assumptions about product risk, and rests on a belief that others’ adoption—especially widespread adoption—would only occur if the product were safe. These two ways of approaching risk show similarities to previously identified risk-handling styles distinguished by gathering new information versus using existing information about possible consequences ([Cox and Rich 1964](#)). They are also consistent with studies suggesting that early adopters rely more on official impersonal information, while later entrants rely more on word-of-mouth and are more prone to herding ([Ostlund 1974](#); [Rogers 2010](#)); and threshold theories of the diffusion of innovation ([Valente 1996](#)) that distinguish early and late adopters by the number of previous adopters needed to provide reassurance that the product is safe enough to purchase. Purchasing by consumers using conformist

risk-assumption increases demand, which propels the start of the next period. We next explain how these dynamics unfolded in the post-socialist Hungarian mortgage market from 2001 to 2003.

*Producers Launch Low-Risk Product Versions.* In post-socialist Hungary, transition agents needed to create a market economy from scratch. Institutions were modeled after Western institutions, in accordance with a long-standing cultural desire to belong to the West ([Pellandini-Simányi and Vargha 2021](#)). To launch the fledgling home mortgage market, in 2001, the government introduced an extensive subsidy program that allowed banks to fix the interest rate at a low level. Nonetheless, consumers’ concerns about the risks of this unfamiliar product presented a significant obstacle. As noted by the marketing director of a major Hungarian bank: “initially, most clients were very skeptical about mortgage borrowing . . . we have been fighting in the last two years to convince the clients, to dispel doubts” ([Zádori 2002](#), 7). To minimize risk to both consumers and themselves, banks offered HUF mortgages with simple payment plans of equal amounts over time and low maximums on loan-to-value and payment-to-income ratios ([Banai et al. 2012](#); [Schepp and Pitz 2012](#)).

At the time, the retail (household) finance market was dominated by former state-owned bank giant OTP, and



TABLE 1  
AUTONOMOUS RISK-ASSESSMENT AND CONFORMIST RISK-ASSUMPTION

	Autonomous risk-assessment	Conformist risk-assumption
Attention to risk	High	Low/non-existent
Information search	Active search for risk information Main source: information from official sources and previous users	No/limited search for risk information Main source: others' behavior (observed or via word-of-mouth)
Assessment and decision-making	Active evaluation of product riskiness Comparing options along multiple criteria, including risk Calculations that account for risk  Questioning/contradicting risk information from peers/official sources	Passive inference of product riskiness Little/no comparison of options, or comparisons that do not include risk No calculation, or calculations do not account for risk Ignoring formal risk information after perception of risk is formed

foreign banks were mainly active in the corporate lending sector (Banai et al. 2011). Local bankers were cautious of mortgages, given the new market economy context and their own lack of expertise in developing and offering complex, risky products. As a product developer of the market leader bank (E2) remembered:

(T)here was a very fast run-up on the supply side with relatively little professional experience, which didn't necessarily mean they were stupid people or unprepared people. But the management itself didn't always know what it meant to do retail banking... It started here somewhere around the 1990s. . . relatively new people started retail banking without much experience or organizational experience. When I started working at Bank X, there were almost such unwritten rules or written rules that installments cannot exceed one-third of the income, so that the repayment burden wouldn't be too high.

A decision maker at the Ministry of Finance (E8) and the Hungarian National Bank Stability Reports<sup>a.d.</sup> for 2000–2002 revealed that during this period, regulators expressed little concern over the market beyond the negative long-term effect of the state subsidies on the state budget.

*Social, Situational, and Cultural Factors Induce Attention to Risk.* Regarding social factors, informants who borrowed during the period recounted that none of their acquaintances had a mortgage, such that they had little peer experience on which to draw. Aron (2003-HUF) recalls, "There were no acquaintances or friends who would have bought an apartment at that time." With no peer experience implying safety, the possible dangers of this novel product were wholly unknown and worthy of attention.

In addition, the buying situation provided little assurance of safety. Acquiring a mortgage was complex and cumbersome, and banks provided little guidance to help consumers navigate the new products and eligibility requirements. As a bank branch manager (E29) explained, when the first mortgages were launched, credit scoring systems did not exist, and bank branches did not have software to calculate

possible offers for clients in the branch. When potential clients walked into the bank, bank clerks could only provide brochures with general technical information about the products and were unable to present a customized offer. A study conducted by the Hungarian Competition Agency between January 2002 and July 2004 on mortgage lending describes these brochures: "At the point of sale (bank branches, agents, insurance companies), written client information materials and leaflets are available, often of a length of a dossier, with dozens of pages. (. . .) their shared characteristic, apart from their length, is that they are written in a technical jargon" (GVH 2005, 7<sup>a.d.</sup>). A bank manager recalled that clerks could only provide a rough estimate of a client's maximum installment based on income: "later a high-tech software was developed for this, but at the beginning it was absolutely manual, we did it with a pocket calculator" (E29). Clients left the branch with an extensive list of general eligibility and mortgage conditions and an equally long list of documents, including employment certificates, recent utility bills, phone bills, and house price estimates, which were required before getting a product offer. A bank employee who worked in credit assessment during this time noted, "There were huge piles of papers everywhere, as if it would never end" (E35). Similarly, a borrower remembered having to navigate "countless administrative things," through "very cumbersome processes and strict conditions" (Eva 2002-HUF; 2007-CHF). Clients received a mortgage offer only after all papers were submitted and processed, often taking several weeks. The complexity of the process strongly discouraged consumers from applying for offers from multiple banks. Rather than helping clients to navigate the process, banks focused on ensuring that clients met eligibility criteria. As a borrower summarized: "It was impossible to see anything clearly, the bank wasn't providing a service, it was acting like a commanding officer" (Rita 2003-HUF). This buying situation differs dramatically from the process described by borrowers in the interim and the high-risk periods, when bank employees walked consumers through various product features and facilitated a quick and easy selling process.

In the low-risk period, the selling situation raised more questions about risk than it answered, inducing attention to risk and caution.

Competing cultural factors during the period worked both to induce consumers' attention to, and avert it from, risk. First, we observe a cultural narrative of safety related to the ideal of home ownership. Homeownership was a coveted ideal in pre-socialist times and became even more alluring under socialism, when limitations on other forms of savings made houses the primary form of accumulated wealth. Home ownership became associated with living up to Western standards and a sense of dignity, and was seen as a key element of belonging to the middle-class (Fehervary 2002, 2013). While socialist ideology favored collective ownership, in Hungary, most homes were not collectivized and homes constructed during socialism were mainly owner-occupied (Fehervary 2011). After 1989, previously state-owned housing was privatized, making Hungary's home ownership rate one of the highest in Europe (Csizmady and Kőszeghy 2022) and reinforcing ownership as the norm. Advertisements leveraged a narrative of home ownership providing long-term stability and reinforced the link between home ownership, adulthood, and a "normal life" (Pellandini-Simányi and Vargha 2020). Almost all interviews echo this discourse of home ownership as an unquestionable aim, an essential element of adulthood, and a cornerstone of security. Julia (2002-HUF) remembered the joy of escaping the instability of living in rentals: "The biggest joy was that it is mine. Mine. I lived so long in rentals. . . ."

Second, our analysis of parliamentary debates revealed two competing traditions: a social protectionist discourse based in a deep-rooted idea from the socialist legacy that the state and institutions should and would shelter consumers from risk, and an emerging cultural discourse of neoliberal responsabilization (see also Giesler and Veresiu 2014). These competing traditions are reflected in a speech by member of parliament (MP) Sasvári (1999<sup>a,d</sup>): "In the national housing policy, we would like to respect two fundamental principles. On the one hand, self-care (responsibility) is dominating this area because the state has withdrawn from the house building sector since a very long time. On the other hand, we want to keep the principle of (encouraging) childbirths." Debates about housing and mortgage subsidies revolved around this tension. Conservative politicians argued that the state should provide subsidies to "help families create their own home" (Szajer 2000<sup>a,d</sup>) and create a "mortgage system that an average-income household can take out without too much risk" (Varga 2000<sup>a,d</sup>). This social protectionist discourse averted consumers' attention to risk by shifting responsibility for risk to the state and institutions. In contrast, liberal politicians promoted a neoliberal discourse that induced consumers to pay attention to risk by arguing that consumers should be self-sufficient and take responsibility for their

own mortgages. In this discourse, state interventions were likened to the detested past communist dictatorship. Liberal politicians compared conservative arguments to the "optimistic style [that] characterized the Central Committee of the Hungarian Socialist Workers' party (during communism)" (Toller 2000<sup>a,d</sup>), warned that only MPs who were too young to remember the failings of the previous planned economy supported state interventions, and insisted that "we did not decide for a regime change to reinstate the planned economy now" (Draskovics 2004<sup>a,d</sup>).

Overall, in the low-risk period, attention-inducing factors outweighed attention-averting factors, as shown in the bottom left of figure 2. Consumers could neither rely on the experience of peers nor on situational factors during the bank interaction to assure them that mortgages were safe, and while some cultural factors encouraged consumers to avert their attention from risks, these factors were not impactful enough to overcome the influence of attention-inducing factors.

*Early Adopters Use Autonomous Risk-Assessment.* The predominance of attention-inducing factors led to collective attention to risk, which in turn, resulted in collective caution among consumers toward mortgages. As noted by a banker interviewee (E2), consumer reluctance was difficult to overcome. Early purchasers in this period consisted almost exclusively of those who were capable of engaging in autonomous risk-assessment as a way of exercising caution. Most early adopters we interviewed were risk averse and recalled that they made their mortgage choice with great care, only after expending extensive effort to gather and process information from various formal sources, attentively studying mortgages in great detail, and taking significant precautions to minimize potential risks. Their descriptions of how they assessed the risks posed by the new mortgages indicated a significant degree of "reflexive doubt" (Thompson 2005). For instance, they described asking for advice from friends who worked in banks, and then thoroughly scrutinizing the advice and taking personal responsibility for the whole process of information gathering and decision-making. Interviews with early adopters also revealed that most selectively drew more from discourses of responsabilization than social protectionism. Notably, when viewed through the lens of individual responsibility, even the narrative of home ownership directed consumers' attention to risk, tasking them with the responsibility for ensuring the safety associated with the home.

In contrast to late adopters, early adopters' stories abound with technical details that they personally gathered from different banks: "We checked and the interest rate was uniform. But then there was the processing fee, the amortization fee, and then of course the account opening fee and then this insurance. You had to look it up in the contract how it works. So, we compared it" (Dora 2003-

HUF). Informants recalled calculations that included factors not emphasized by the bank, with some informants becoming experts on different kinds of state subsidies, risk factors, and interest and deposit rates, through what many referred to as the “research process.” Perhaps as a result of their deep engagement with the process, most retained vivid memories of almost every detail of the mortgage contract they had signed, and of their comparisons and financial calculations. The high degree of detail provided in Julia’s account of purchasing a mortgage 12 years prior, which references consideration of the risk of changing interest rates and other factors, is typical of informants who took out mortgages during this period:

I examined very thoroughly from which bank I can borrow, and which bank can lend it that way. . . . I’m this [thorough] type of person fundamentally, and yes, I went everywhere [to every bank], I asked, I saw it. And then the FHB Bank had this really very, very favorable credit for government officials. I remember that you did not have to pay the notary fee, then the one-time costs for borrowing were very minimal, the down payment itself was cheaper than at the other banks. And I also liked this five-year interest period, we can say that it can be good or bad again, depending on how the economy changes. (Julia 2002-HUF)

Had their careful examination revealed these mortgages to be overly risky, these informants would not have acquired them. However, their calculated approach led to a determination that these novel products carried a low degree of risk that aligned with their low risk tolerance.

Consistent with previous statistical studies (Hegedűs and Somogyi 2004) and with Holt’s (1998) and Bourdieu’s (1984) findings that members of higher social classes are more likely to exercise autonomy, interviewees who used autonomous risk-assessment were upper or middle class, with a stable source of income and a relatively high education level, often in finance or related mathematical fields. In addition to their habitus that predisposed them to be more open to autonomous decisions, their high level of education and knowledge of finance equipped them with the skills needed to perform autonomous risk-assessment. Further, their income provided the financial stability and comfort to take time to calculate risks—as opposed to poorer, late entrants who often had to make quick decisions under financial pressure. Indeed, many early adopters acquired a mortgage not because they were in dire need of an apartment, but because they saw it as a good investment opportunity. Approaching the purchase as an investment allowed these borrowers to base their choice more on calculated rationality than emotion, and facilitated autonomous risk-assessment. In sum, most early adopters were able and willing to respond to attention-inducing factors by leveraging their financial literacy and resources, which allowed them to focus their attention on risk and assess it autonomously.

*Later Purchasers Use Conformist Risk-Assumption.* As the number of consumers with mortgages increased, other consumers became more open to the possibility of taking out a mortgage. However, unlike earlier adopters, their increasing openness did not result from studying risks in detail. Rather, they recalled having heard about the “good opportunity” via word-of-mouth and joined the bandwagon to try to take advantage: “We saw at the neighbor, a young couple who took out the loan, and then, as far as I know, they took out the loan in March, and then they got the keys in June, and they moved in, too. Probably theirs was also in HUF” (Péter 2003-HUF). As the quote suggests, these informants were unsure what type of mortgage others had. They were also typically unaware of features of their own mortgages and did not recall conducting any research on risks. For them, adoption by others in their social circle provided assurance that mortgages were low-risk. Like those who recalled autonomous risk assessment, most informants who recalled behaviors we categorize as conformist risk-assumption perceived themselves to be risk-averse. Fortunately for them, in the low-risk period, the only mortgages available were low-risk, and thus well aligned with their preferences.

## The Interim Period

*Conceptual Model.* Encouraged by increasing sales, more producers enter the market and start a risk competition (Banai et al. 2011)—a competitive strategy of lowering prices by increasing product risk, rather than decreasing profits (Schumpeter 2021) or increasing efficiency (Porter 1998) (figure 2, middle). Initially, market offerings include both existing lower-risk/higher-price versions and the new higher-risk/lower-price versions. Consumers using conformist risk-assumption, who pay little attention to risk and typically have fewer financial resources than those who use autonomous risk-assessment, choose the more affordable, higher-risk versions. Increased adoption triggers the entry of more conformist consumers, and higher-risk versions become increasingly popular. Some regulators issue warnings about their risks, but most deem the risks insignificant and do not yet enact regulation. This period lasts until the sale of high-risk/lower-price versions exceeds that of low-risk/higher-price versions. The dynamics of this period occurred in the Hungarian mortgage market from 2003 to 2006.

*Producers Introduce Riskier, Lower-Price Versions.* Increasing mortgage sales drew recently arrived foreign-owned banks to the household mortgage market, as they represented an unexploited business opportunity and an entry point to retail banking (Banai et al. 2011; Pellandini-Simányi and Vargha 2021). As state subsidies were gradually phased out, challenger banks developed more affordable mortgages in an effort to poach middle- and upper-

class consumers from the local market leader, OTP bank, and to attract consumers on the middle and lower end of the income scale (Banai et al. 2011). Affordability was understood specifically as lower monthly installments that consumers could easily compare to their salary and monthly rental prices. To decrease monthly installments, challenger banks leveraged their access to foreign currency liquidity and their expertise in developing complex financial products to offer mortgages denominated in foreign currencies, which could attract borrowers with their lower interest rates. Euro and Swiss Franc were most common. As a CEO of a foreign-owned bank remembers:

I became CEO of Bank F, which at the time wanted to shift from a corporate financing bank to a big, universal bank. It was building its retail business at the time, so from 20-something branches we went to 100 branches in three years. . . . We were in the retail lending which turned into foreign currency. ( . . . ) At the beginning of the 2000s these big, previously corporate banks started to compete with OTP also in the retail sector. Mortgage is a kind of product that if you make a contract, you are tied to it for a long time. In addition, they asked clients to have also their current account there, so you can build a long-term relationship on it. It is a good flagship product, so every bank thought that it would build up its market acquisition through this (mortgage) branch. Raiffeisen, K lker Bank, CIB went into it (into FX mortgage) with full steam. (E1)

While more affordable than local currency mortgages at the time of issue, FX mortgages' additional risks associated with the exchange rate and foreign currency interest rate could translate into larger installment and outstanding loan amounts in the future. Importantly, mortgage contracts delegated all of these systemic risks of the global financial market to consumers, specifying in the contracts that the bank had the right to transfer all costs stemming from exchange rate and foreign interest rate changes to consumers.

Local banks, like OTP, did not immediately offer these higher-risk mortgages. Some refrained from FX mortgages because they deemed them too risky and tried to decrease the price of low-risk HUF mortgages. Others offered FX mortgages with an exchange rate guarantee via exchange rate insurance to lower the risk of default. As a manager responsible for the mortgage strategy of the leading local banks remembered:

Our bank did not enter into foreign currency lending because the managers responsible for the retail business saw a risk in foreign currency lending. But when it becomes evident in the market that if the bank does not make this move, it will lose clients, it undermines this reasoning. I note however, that Bank L was the bank that, when it finally introduced foreign currency lending, introduced the exchange rate guarantee. (E15)

*Regulators Deem Risks Insignificant.* Despite the fact that in the Parliament, an opposition MP warned that foreign currency-denominated mortgages have "substantial risk and we should face it" (M di 2004<sup>a,d</sup>), no regulators took significant action to address these risks. As a new phenomenon, FX lending was not addressed by regulatory risk-detection tools available at the time, creating a blind spot for its risks. For example, as a high-ranking officer in the National Competition Agency (E18) recalled, when the agency conducted an in-depth investigation of the mortgage market (GVH 2005<sup>a,d</sup>), it was only prepared to look for signs of market dominance and unfair advantage. Smaller, challenger banks offering FX mortgages posed a very different type of risk that the agency's regulatory toolbox simply was not equipped to notice. Indeed, the report hardly mentions FX lending, except for one note that says: "The FX loans can be considered a positive effect in the competition" (14).

Further, at the time, no institution had a mandate to gauge risks to consumers. As explained by a regulator (E17), the Consumer Protection Authority did not address FX lending because its mandate was limited to investigating consumer complaints, which were scarce at the time. The Hungarian National Bank also could have acted. However, its regulatory mandate was limited to assessing systemic risks. As noted by a high-ranking HNB officer, risks of FX mortgages were borne by households and thus did not fall under the bank's purview (E19). Albeit the HNB's 2004 Stability Report (HNB 2004<sup>a,d</sup>) stated that due to the foreign currency-based lending, "Households' vulnerability to exogenous shocks is constantly rising" (9), this observation was not tied to any mandate to act.

*Consumers Increasingly Use Conformist Risk-Assumption.* Our interview data reveal that as mortgages became more prevalent, widespread adoption encouraged increasing numbers of consumers using conformist risk-assumption to enter the market. Like earlier adopters, these new adopters reported being risk-averse. However, due to their inattention to risk, when faced with a choice between lower-risk/higher-price and higher-risk/lower-priced mortgages, they opted for the latter, perceiving the risk posed by the two types as identical. We explain the development and maintenance of the collective ignorance related to this misjudgment in the next section. Importantly, large numbers of consumers misjudging the risk of these lower-priced mortgages resulted in increasing demand for higher-risk versions, to which producers responded by increasing supply.

## The High-Risk Period

*Conceptual Model.* Once the sale of higher-risk/lower-price versions exceeds the sale of low-risk/higher-price versions, the high-risk period begins. In this period, increasing demand for higher-risk, lower-priced versions

triggers intensive risk-competition among producers, and the higher-risk/lower-price versions become the norm among producers' offerings (figure 2, right). Regulators now deem the risks significant and enact regulation in an attempt to protect consumers, such as requiring producers to inform consumers of specific risks. However, due to cognitive silos and pressures that encourage strategic ignorance, regulators enact regulation that is insufficient to limit the availability of high-risk versions or to disrupt the maintenance of consumers' collective ignorance of risks.

By this time, attention-averting factors have multiplied and interact in ways that outweigh the effects of attention-inducing factors, producing collective inattention to, and subsequently, collective ignorance of, risk. Social dynamics have shifted such that many consumers now know others who have purchased the product without experiencing any ill effects, and consumers infer from peer experiences that the product is safe. Such learning from others' experience works well in markets where products have similar risk characteristics over time. However, we theorize that in markets experiencing risk buildup, later entrants engage in what other scholars have labeled "false learning" (Sterman 2001)—specifically, applying their learning about early, low-risk product versions to later, higher-risk versions. This false learning is made possible by three characteristics of products in the high-risk period of these markets: (1) offerings have evolved such that lower-income consumers entering in the later period are offered more affordable, yet riskier products than the higher-income consumers who represent the majority of early entrants; (2) due to increasing risk competition, even products offered to middle- and high-income consumers in the later period are more risky than products offered to earlier adopters of the same social position; and (3) the products carry long-term risks, such that negative outcomes are not observable for many years. In addition, differences in financial resources between early and late entrants contribute to false learning, as consumers with less financial resources learn from the positive experiences of previous entrants with more financial resources.

Situational factors during this period reinforce the perception of safety that consumers form based on peer experiences. First, the selling process has evolved to be much simpler, quicker, and easier, providing little time or reason for consumers to turn their attention to risks. Second, unlike in the low-risk period, the information in the selling situation is highly structured, and presented in a way that averts attention from risks through three processes (see also Pellandini-Simányi et al. 2015; Pellandini-Simányi and Vargha 2020): *overshadowing*, which entails presenting risks as an insignificant detail in a choice where other factors are the primary focus; *selective information overload*, in which risk information is provided in complex, unfamiliar language amidst large amounts of other purchasing information; and *downplaying*, in which sellers assure

consumers that risks are not worthy of concern. These situational factors reinforce, and are reinforced by, cultural narratives that late adopters tend to draw on, including social protectionism discourses that place responsibility for managing risks on institutions, and discourses that associate the product with safety.

Collectively, these interacting social, situational, and cultural factors lead to collective inattention to, and thus, collective ignorance of, risk among consumers. Due to this ignorance of risk, consumers adopt the increasingly affordable—and increasingly risky—product versions, fueling continued risk-based price competition among producers. Risk competition lowers prices further, enabling consumers from poorer and less educated segments, who are less able to engage in autonomous risk-assessment, to purchase, thus increasing the proportion of consumers using conformist risk-assumption. Greater adoption further encourages the entry of consumers using conformist risk-assumption, many of whom are risk-averse, yet unable to gauge the risks due to intensified collective inattention and ignorance. The market enters into a state of spiraling risk buildup until the risks manifest and the market collapses. The high-risk period occurred in the Hungarian mortgage market during 2006–2010.

*Producers Shift to High-Risk Versions.* Our expert interview data reveal that when bankers observed the increase in the portion of consumers buying higher-risk/lower-price mortgages, they inferred that consumers desired these versions, which, notably, provided higher profits to banks. As a mortgage product developer recalls: "there was a strong consumer pull, and the supply moved into that space (filled it), because on the supply side, it seemed like a great opportunity" (E2). Previous work confirms that even banks that earlier promoted low-risk mortgages joined the risk competition bandwagon (Banai et al. 2011). For example, Bank L, which had promoted low-risk, local currency mortgages and offered exchange rate insurance for FX mortgages in 2005, stopped offering insurance in 2007 and switched its offerings to predominantly FX mortgages. As a high-level banker remembers, "The Bank did not renew (the insurance option) because they probably analyzed that between 2004 and 2006, the Bank earned 3–4 billion less because of this insurance, and they were thinking 'Then why the hell are we doing it?' And the borrowers (were thinking), 'I didn't even have to use it and it still has a fee?'" (E15). As this quote suggests, banks that stuck to low-risk products were making less profit and losing clients. Moreover, risk-hedging insurance was a difficult concept to explain to consumers who struggled to understand why they should pay for something that they may never use.

Starting in 2006, the market entered a stage of full-blown risk-based competition (Banai et al. 2011, 2012). The foreign currencies in which mortgages were offered

were extended beyond the original Euro and Swiss franc loans to the riskier Japanese Yen. Banks started to issue mortgages without income and payment ability assessment, accepting the value of the property as their only assurance against loss, and payment-to-income ratios increased (Schepp and Pitz 2012). These changes increased the pool of people eligible for a mortgage and made mortgages affordable for the poorer strata of society. They also drastically increased the risks of mortgages, which were borne primarily by consumers. Unlike in the U.S. mortgage crisis, in which financial institutions, as well as consumers, assumed increasing levels of risk, in Hungary, banks remained relatively safe from risks due to high collateral requirements.

*Regulators Notice Risks But Implement Insufficient Regulation.* With FX mortgage lending booming, regulators gradually took notice of its risks. The Stability Reports of the HNB (2006–2009<sup>a,d</sup>) dedicated increasingly longer sections to the risks of FX lending, with ever starker warnings that households may not be able to afford installments if exchange rates changed, and Parliamentary discussion turned to the potential risks of FX lending. Drawing on the prevailing neoliberal idea that with enough information, consumers will choose offerings that best suit their needs—including their tolerance for risk—and markets will thus become self-regulating, regulators focused on information disclosure. The Financial Supervisory Authority issued a communication explaining the risks of FX lending to consumers and an official “recommendation” for banks on how to fulfill the existing regulatory requirement of information provision in mortgage lending. The document specified that financial institutions must warn borrowers of the “product’s potential risk (especially exchange rate risk; in the case of mortgages, of the possibility of losing the real estate)” (PSZAF 2006<sup>a,d</sup>). Most banks fulfilled this requirement by making borrowers sign a “risk exploration statement” stating they understood the risks (Gárdos and Nagy 2013; Kovács 2013, E33), but, as we will show, this tool was ineffective.

Insufficient regulatory response was due, in part, to a set of factors encouraging institutional ignorance of the true extent of the risks. Beyond the aforementioned ill-equipped regulatory toolbox, an epistemic community focused on Westernization created a cognitive silo around understanding the true risks of FX lending. As explained by Pellandini-Simányi and Vargha (2018), institutional ignorance was based on the conviction, shared by bankers and regulators, that FX lending was part of Westernization. Regulators distinguished “normal” from “excessive” lending by comparing Hungarian statistics to those in Western Europe, which they considered an ideal to be emulated. In this epistemic frame, regulators interpreted “growing indebtedness as a sign of ‘catching up with the West’” (2018, 282), which calmed their concerns over risks.

Moreover, Hungary was seeking to join the Euro zone, and regulators and banks assumed that the risks of FX lending would be eliminated with the introduction of the Euro.

Further, Parliament and the HNB each had incentives to engage in strategic ignorance. While they shared the aim of protecting consumers and banks from default, Parliament and the HNB also each had a vested interest in ensuring a flourishing mortgage market that contributed to economic growth. For Parliamentary MPs, economic growth helped to secure votes. For the HNB, it helped to secure financial stability. Ignoring and downplaying the risks of FX lending allowed these entities to reconcile the aim of protecting consumers and banks with the contradictory aim of economic growth. As a ministry employee remembers “there may have been a governmental intention in not pushing (restrictions on FX mortgages) because economic growth was fragile in the period” (E17).

*Risk-Averse Late Adopters Purchase High-Risk Products.* Consistent with banking statistics, we find that interviewees who took out mortgages after 2006 carried much more risk than those of previous periods—including systemic risks that were delegated to them by the mortgage contract. Ironically, they also perceived themselves to be risk-averse and often described themselves as preferring safety in a variety of contexts:

I have an aversion to risk-taking. (Robert 2008-FX)

I am just a woman. I don’t know. . . so I always go for the safe option, always. . . I like precaution. (Borka 2006-FX)

(It is important) that my everyday life unfolds in a safe way. (Imola 2008-FX)

Consistent with the results of our quantitative survey, our interview data reveal that these borrowers purchased high-risk mortgages not after making a conscious calculation of the trade-off between risks and the price advantages of FX loans, but after paying no attention to risks:

I didn’t think about the risks, it didn’t even occur to me. (Ferenc 2006-FX)

So, I didn’t care if it was registered in foreign currency or not. (Pál 2008-FX)

At the time, they seemed to be the same, like it didn’t matter if it was denominated in HUF, Swiss Franc, or Japanese Yen. It didn’t matter at all. (Kata FX-2008)

These consumers paid no attention to risk despite being presented with risk information in bank’s mortgage materials and approving the information before signing their contract. This was due to the increase and interaction of factors that conditioned collective inattention to, and ignorance of, risks, and was amplified by the class composition of the period’s new entrants. Availability of high-risk mortgages with low monthly installments allowed an increasingly poor and less educated strata of society to enter the market (Pellényi and Bilek 2009), who were less able to

engage in autonomous risk-assessment due to their lower financial literacy.

*Social, Situational, and Cultural Factors Foster Collective Ignorance.* Regarding social factors, by the time of the high-risk period, the majority of late entrant borrowers in our dataset remembered having seen or heard of colleagues, friends, or family members getting a mortgage, or used general terms such as “everybody” getting a mortgage:

In the mid-2000s, I saw in the example of my friends who were in about the same (social) category, my peers. . . I have seen that my friends are taking out home loans with small initial installments with better and better conditions and it works out financially the same way for them as it would work out for me. (Imola 2008-FX)

I saw among my colleagues that one colleague got a mortgage, then another, I saw my single colleague moving out from her parents, then another who was co-habiting, then another . . . so more in my work environment, which was also a friends’ environment, I saw it concretely that this and that and another person took out a mortgage. (Robert 2008-FX)

Basically, we never thought that we would ever take out a loan, only then, I don’t even know when, in 2007, the public mood was just like that, it was all about these mortgage-based real estate loans. (. . .). But I am convinced that this public mood, this incredible amount of credit agreements that happened then, and, yes, the public mood on the subject, has pushed me, I think my decision to get a mortgage depended on that. (Dániel 2007-FX)

Most of these interviewees described their decision-making and purchase behaviors in ways consistent with a conformist risk-assumption approach, basing their perception of risk on the behavior of others. Specifically, they perceived mortgages as safe because many others had already purchased what they perceived to be the same product—regardless of the currency in which each was issued—without experiencing any negative effects. Indeed, many informants who purchased during this later stage recall that they long hesitated before getting a mortgage due to their high aversion to this type of risk and that they only purchased after the growing use of mortgages reassured them that the product did not pose unacceptable risk. Emma recalled, “I was thinking for a year and a half whether or not to take out the loan. So, I took my time. Then they said, oh, don’t worry, and when I saw that everyone in my environment was taking out a mortgage, then I got one as well in 2008” (Emma 2007-FX; 2008-FX).

In addition, factors in the buying situation that averted consumers’ attention to risk now overwhelmed the attention-inducing power of the obligatory risk warning presented during the sales interaction. Although interviewees who purchased during the high-risk period were presented an opportunity to notice and assess risks upon

entering a bank branch or contacting a mortgage agent, most bypassed the opportunity. As Imola (2008-FX) remembers: “Well, maybe they told me (about the risk), only I didn’t catch on.” By this time, industry norms of the mortgage sales interaction had substantially changed. Bank clerks had direct access to the bank’s customer relationship management system and were able to quickly recommend specific products to clients. Rather than providing unstructured, complex, technical, and generic information, bank clerks now highlighted key points and explained customized offerings (Vargha 2011) in a presentation that included overshadowing, selective information overload, and downplaying—all of which encouraged inattention to risk. Consistent with prior research, we find that banks’ informational materials about mortgages highlighted monthly installments, while mentioning the risks of FX mortgages only in small print (Pellandini-Simányi, Hammer, and Vargha 2015), and as a result, in the complex mortgage choice, risk was overshadowed by other, seemingly more important, considerations (Pellandini-Simányi and Vargha 2020).

Indeed, many consumers recalled comparing monthly installment and initial down payment amounts of mortgage options, with some even making future calculations based on present conditions. However, they did not consider risk factors in these comparisons or calculations. As Anna recalled her purchase of a second, FX mortgage in 2008, “OK, of course, they said it, in a subtle way, that if the exchange rate changes, then we bear the risk, but I really did not realize it in my mind. . . we just looked at our monthly installments and saw that it (the high-risk mortgage) would be a little less” (Anna 2001-HUF; 2008-FX). In addition, while other information was presented in a simple and easy form, clients experienced selective information overload as they received risk information as part of a long, legal text read aloud, often in the same meeting during which they received their contracts. As Pál recalls, “Already the contract was so long and so incomprehensible to me, so much text. . . I was very, very amateur at the time. And not to mention that I had to move. Time constraints, everything” (Pál 2008-FX). Finally, inattention was encouraged by downplaying. Even when consumers asked about risks, mortgage agents assured them that risks were not worthy of concern. As Diana (2006-FX) recalls: “At the time, in the bank, when they told us (about the exchange rate risk), I remember clearly they said that more than 30% fluctuation is not expected.”

Importantly, consumers’ lack of caution and reliance on the guidance of a seller in this case, in which most were making the highest value purchase of their life, would not have occurred without the social factors described previously. For consumers who purchased in this period, these social dynamics created feelings of safety and confidence in the low-risk nature of mortgages long before they interacted with a bank. Interactions with the bank merely

reinforced these feelings. As Ferenc (2006-FX) aptly put it: “Everybody was in the same shoes. . . many people took out a mortgage. . . . It didn’t seem like something that needs to be discussed a lot.” In social psychology terms, consumers formed mental models that mortgages are safe based on peer observation and were more open to information that confirmed their beliefs while discounting contradictory information in the selling situation (Nickerson 1998).

For late adopters, the preponderance of social and situational factors that rendered risk unworthy of attention aligned seamlessly with cultural resources that associated the home with security and reproduced expectations that the state and institutions would ensure products’ safety. Late adopters drew more from social protectionist discourses and the narrative of home ownership as safety than from competing neoliberal discourse. Ida (2008-FX) remembers,

Well, we didn’t know because we didn’t think. . . because after the good times of the previous regime. . . in the communist regime ( . . . ) they (the state) used to take care of you that you don’t become homeless. ( . . . ) Who would have thought. . . ? We were so foolish, and the past regime was still in us, that they (the state) used to take care of us.

Consistent with “civil inattention” to risks (Giddens 1990), socialism-era narratives allowed borrowers to view risks as something that should, and would, be handled by the state, and outside the scope of individual responsibility—and attention.

By the time of the high-risk period, even highly educated consumers more often employed conformist risk-assumption due to the overwhelming effects of attention-averting factors, which encouraged consumers to view mortgages as normal and risk-free, and no longer worthy of extensive information search and analysis. Yet, the extent to which these attention-averting factors, which exist at a collective scale, affect any particular consumer is influenced by a set of individual characteristics—notably, economic and cultural capital—that alter the extent to which a consumer is able and willing to assess risks. Thus, even in the high-risk period, some consumers with exceptionally high cultural capital were able to resist the abundance of attention-averting factors and go against the market trend, instead purchasing low-risk, local currency mortgages. As Attila (2006-HUF), who holds a PhD in economics, explained his choice of a HUF mortgage, “So to speak economically, the Swiss franc and the forint exchange rate falls into the completely random category. How it will develop in the next 10 years is completely unpredictable, and we saw that interest rates were very low, so we thought that they cannot stay so low in the long run.”

For these informants, choosing the safer option of the HUF mortgage was the result of reflexive doubt that was counter normative and they recalled that to make the safer choice, they had to “fight” with the bank and tolerate the

feeling of being treated “like an idiot” (Fanni 2008-HUF). However, these instances became increasingly rare over time as collective inattention and ignorance became even more normalized and difficult to challenge. Meanwhile, collective ignorance of risk further fueled risk competition in a spiral of increasing risk buildup. Eventually, the market collapsed in 2010, leading not only to personal insolvencies but also to a systemic crisis of the housing market and the retail mortgage banking sector.

## DISCUSSION

In this research, we developed a market system dynamics model of the production of collective ignorance and spiraling risk buildup. We theorize collective ignorance as preceded by collective inattention, which is driven and maintained by attention-averting social, situational, and cultural factors. Notably, the influence of these factors on any particular consumer is not deterministic. It is amplified or countered at an individual level depending on the consumer’s economic and cultural capital, which strongly influences the consumer’s ability and eagerness to pay attention to and assess risk. Collective inattention and ignorance arise over time from intensification of attention-averting factors combined with an increasing proportion of adopters less able to assess risk, but more able to enter the market as offerings become more affordable.

Our model highlights sequential consumer-producer dynamics that occur in the absence of effective intervention. Initially, novel, low-risk products are purchased by early adopters who attentively assess risks. Conformist consumers follow, assuming the product is low risk based on others’ use. Producers respond to rising demand by offering more affordable, riskier versions alongside original versions. Conformist new entrants do not assess nor realize the risk of new versions and choose them due to their lower price, initiating risk-based price competition among producers. This allows entry of more consumers with ever lower economic and cultural capital, which, alongside attention-averting situational and cultural factors, further reinforces conformist consumers’ sense of safety, leading to even more purchasing of higher-risk options. This creates a spiral of increasing risk, fed by mutually reinforcing dynamics of consumer demand for more affordable products and producers offering affordability by continually increasing product risk.

### Theoretical Contributions

Our findings contribute to existing theories of the social construction of risk, inconsistencies between consumers’ attitudes and purchase behavior, and responsabilization. First, previous work in consumer culture theory has explained normalization of risky consumption through critical reflection and individuals’ sense-making as they



acculturate to communities with shared risk narratives (Celsi et al. 1993; Thompson 2005; Thompson and Isisag 2021; Wong and King 2008). In contrast, we contribute a theory of normalization through a shift in market system dynamics from encouraging critical reflection to precluding it—specifically, to conditions that produce and maintain collective ignorance of risk. While previous work has focused on how individual consumers' perceptions of and responses to risk shift over time to align with collective risk perceptions (Celsi et al. 1993), our theory explains the evolution of market and social conditions that produce such collective perceptions. By explicating institutional, social, and cultural shifts that prefigure individual consumers' approach and attention to risks, we offer insight into the “context of context” (Askegaard and Linnet 2011, 381) of individual sense-making about risk.

Moreover, in theorizing ignorance of risk, we extend previous work by Humphreys and Thompson (2014) that focused on cultural narratives that foster a collective perception of risks as low. Their model of “ideological containment” provides key insight into *ex-post* discursive strategies through which the media frame disasters stemming from systemic risks in ways that restore trust in expert systems. Our model, in contrast, traces processes that allow risk to build up, *ex-ante*. Rather than focusing on the top-down production of cultural frames by institutional actors after risks manifest, we propose a dynamic model in which institutional actors and consumers co-construct collective ignorance of risk and risk buildup prior to a market disaster. Expanding the scope beyond framing by institutional actors, our model highlights the changes in, and interactions among, producers' selling practices, regulators' (in)action, and social dynamics that result in risk buildup, and eventually, market disasters that call for ideological containment.

Our research confirms previous findings that class position, including its economic and cultural capital elements, shapes management of financial risk (Henry 2005) and that meaning-making in credit contexts is influenced by the cultural repertoires on which consumers draw to make sense of credit practices (Bernthal, Crockett, and Rose 2005). Consistent with prior research (Bourdieu 1984; Holt 1998) linking high cultural capital to autonomous decision-making and low cultural capital to a conformist style, our findings suggest that upper- and middle-class consumers, who have higher financial literacy and fewer choice constraints, are more likely to use autonomous risk-assessment, while lower-class consumers are more likely to use conformist risk-assumption. We contribute to this literature a model of how meso-level social, situational, and cultural factors prefigure autonomous and conformist approaches to risk across classes—an influence that could be amplified, but which we observe was only rarely overcome, by an individual's degree of cultural capital. In addition, our study shows how these class differences come into play in the process of risk buildup in a market. Widening eligibility and increased accessibility made possible by lower prices over time lead to changes in the typical

degree of cultural and economic capital of purchasers. A rising proportion of low-cultural capital consumers facilitates the proliferation of conformist risk-assumption and the rise of collective ignorance, while differences in economic capital between early and late entrants contribute to false learning, as lower-income late entrants incorrectly draw from the experiences of high-income early adopters. Further, this process reproduces and deepens class differences. When price decrease is achieved by increasing risks, the gradual opening of the market to increasingly lower-income segments leads to the worst outcomes for the least powerful consumers.

Second, our model contributes to research on inconsistencies between consumers' attitudes and purchase behavior by elucidating the production of collective ignorance—rather than individuals' perceived lack of information—as a key contributor. Previous research on the ABG in the contexts of fair trade, environmentalism, or humane treatment of workers or animals has found that perceived lack of, and skepticism about, information can impede consumers' acting on their ethical attitudes (Bray, Johns, and Kilburn 2011; Carrington et al. 2014; De Pelsmacker and Janssens 2007). In contrast, we show how market and social factors prevent consumers from perceiving that they lack information. Specifically, widespread product use serves as a substitute for product information, such that, rather than perceiving a lack of information, consumers confidently, but falsely, assume that the product is safe and thus consistent with their risk-averse attitudes. Simultaneously, situational and cultural factors avert consumers' attention from relevant product information. By contributing a model of the ways that market and social dynamics lead large numbers of consumers to behave in ways inconsistent with their attitude toward risk, we begin to address criticisms of ABG research as promoting a false ideal of consumer sovereignty and too often minimizing the roles of capitalist structures (Carrington, Zwick, and Neville 2016) and socio-cultural forces (Caruana, Carrington, and Chatzidakis 2016; Devinney et al. 2010). Our model highlights the ways these structures and forces challenge consumers' sovereignty in shaping both consumers' beliefs about products and the product choices available to them. These influences wield enough power to propel behavior inconsistent with consumer attitudes even in our context of financial risk, in which, unlike the contexts of fair trade or environmentalism, the consumers themselves suffer any resultant harm.

Central to our model is the development of collective inattention to risks. Previous studies of attention focused on the individual level and have identified characteristics of stimuli (Cian et al. 2015; Kim and Lakshmanan 2021; Raghuram and Das 2010), individual cognitive processes, such as confirmation bias (Sanbonmatsu et al. 1998), or the influence of consumers' involvement (Celsi and Olson 1988) as factors that influence attention. In contrast, our model theorizes *collective* inattention as a socio-culturally conditioned and maintained phenomenon. It suggests, first, that individual-level factors identified by previous studies

may become prevalent at a collective level by being integrated into industry-wide selling practices and thus become drivers of collective inattention. Second, our model suggests that many individual factors identified by prior studies depend on social, situational, and cultural processes. For example, the social and cultural environment shapes consumer involvement, a key individual-level predictor of attention, and confirmation bias may confirm perceptions shaped through collective perceptions of risk.

Finally, our theory of the generation and maintenance of collective ignorance is relevant to recent discussions of responsabilization. Giddens (1990), writing more than 30 years ago, suggested that trust in expert systems is necessary because its absence would make life unlivable, creating existential anxiety and the paralysis of action. How would people be able to drink a glass of water, use a mobile phone, or take out a mortgage if expert systems no longer guaranteed their safety? Anxiety over uncontrollable systemic risk is, however, increasingly the reality of contemporary responsabilization. Responsibilization involves a risk shift from the state and institutions to the individual (Calhoun 2005; Giesler and Veresiu 2014; Hacker 2008). It requires individuals to be knowledgeable of risks and to at least share, if not entirely shoulder, responsibility for the management of systemic risks and for any negative outcomes. Taken to its logical conclusion, responsabilization marks the end of the era described by Giddens (1990), in which individuals were expected to trust expert systems to monitor, manage, and bear systemic risks, as these tasks are increasingly delegated to individuals. In total neoliberal responsabilization, there are no institutions that should manage risks—not even in theory. Everyone should use what Giddens called “radical engagement,” assessing and managing risk. As our data suggest, this engagement is only possible for a minority of consumers, who have enough cultural and economic capital to exercise autonomous risk-assessment—and even these consumers are unlikely to be able to effectively handle systemic risks. For the majority of consumers, in the context of responsabilization, ignorance may take the place of “civil inattention” that was based on trust in experts, and become a key resource for mitigating and escaping anxiety and action paralysis generated by large, systemic unknown and unknowable risks. In addition, it allows actors to escape responsibility. As long as one is ignorant, one is free of any fault for failing to address problems or risks (Luhmann 1998; McGoey 2007). Ironically, although neoliberal responsabilization emphasizes individual acquisition of information and knowledge, it may require ignorance in order to function.

### Implications and Research Limitations

We assert that the risk buildup described in our model may also arise in markets for offerings that pose other types of risk, such as *performance risk*, risk of the product breaking down, or *physical risk*, risk that it harms one’s health.

For example, in markets for cosmetic surgery, the dynamics in our model could result in late entrants undergoing higher-risk procedures than early entrants. In markets for durable household goods, late adopters could find that later, lower-quality versions fail much sooner than expected based on peers’ experiences with earlier, better-made versions. Insights from our model could also help to explain 2023’s record number of deaths on Everest expeditions, which is partly attributed to newly opened travel agencies conducting climbs despite high-risk conditions, and catering to a less affluent and knowledgeable consumer base than longer-established agencies (Arnette 2023).

The dynamics we model require specific competitive and product characteristics, the presence of which makes spiraling risk buildup more likely. First is risk competition (Banai et al. 2011, 2012), which is likely in markets where other sources of price decrease, such as economies of scale or implementing new technologies, are not available or cost effective. Second, our model’s dynamics require that risks materialize only in the long term, such that later entrants may perceive riskier versions as identical to early versions, and purchase before having the opportunity to learn from others’ negative experiences. Examples may include foods or cosmetics made more appealing by the addition of ingredients that are harmful only after long-term use, similar to cigarettes, or products that can be made more affordable by reducing the number of safety features. Further, the model’s dynamics are more likely in markets for offerings that are complex and difficult for consumers to comprehend, with risk only one of many characteristics, such that the difference between low- and high-risk versions is not immediately apparent and requires substantial effort to assess. Finally, the model’s dynamics include a delayed regulatory reaction, which is more likely in markets for novel products whose risks are not well addressed by existing regulatory tools.

Risk buildups, such as in the U.S. subprime crisis, are often considered “black swan” (Taleb 2007) events—random anomalies in the normal functioning of markets. In contrast, our findings suggest that risk buildups are endemic to markets that meet the conditions we describe. Risk buildup happens not when someone does something wrong, but as an inadvertent side effect of the normal functioning of these markets, and can only be prevented by interventions from actors such as regulators and the media. Given that consumers carrying more risk than they desire can have dire consequences, such as eviction, long-term health effects, or quality problems with expensive consumer durables, our work has clear implications for consumer protection regulation. For policymakers and regulators, our findings imply that the efficacy of regulation focused on information and risk warnings decreases over the course of risk buildup. In the early stages, experts’ risk warnings and information disclosure are more effective, because they compete with fewer attention-averting

factors and most early adopters are engaged in autonomous risk-assessment, are open to rational risk information, and have the financial literacy to act on it. However, in later stages, even very explicit risk warnings are likely to be ineffective because: (1) they are eclipsed by attention-averting factors, (2) most consumers employ conformist risk-assumption and have already formed a perception of product risk as low before encountering the information, and (3) late adopters with lower financial literacy are less able to comprehend and act on risk warnings. Thus, in later stages of risk buildups, a stronger regulatory approach focused on product intervention, product suitability assessment, and stricter eligibility would be more effective than one focused on disclosure. In these stages, media and public figures could play a key role in fighting collective inattention, as late entrant, conformist buyers rely largely on the opinion and behavior of trusted others. Relatable narratives and advice from trusted public figures are more likely to incite attention to risks than impersonal risk warnings from sellers.

Our research has some limitations, including focusing on only one type of risk, financial, in only one country within a particular socio-historical context. Further, our work focuses on dynamics of consumers, producers, and regulators, paying less attention to ways risks were framed in public discourse, by the media, and other actors. Finally, collective ignorance of risk is only one of the possible mechanisms that lead to risk buildup. In other contexts, higher risk-taking may stem from increasing risk-tolerance or consciously chosen trade-offs between lower price and higher risk. We encourage future studies that investigate the market dynamics of risk buildup for other types of risks and in other contexts. Moreover, research on how public discourse influences the development of collective ignorance and risk buildup, and ways it may apply differently in neoliberal versus social protectionist contexts, warrants further study. Such studies could provide needed insights to better protect consumers from unwanted risks.

## DATA COLLECTION STATEMENT

Data collection took place between February 2014 and June 2015 in Hungary. Expert interviews were conducted in Budapest, except for one interview that took place in the interviewee's home outside of Budapest. Consumer interviews were conducted at the current living location of the consumer (in Budapest or in a city/village of the countryside—see [web appendix C](#) for details). The archival data were acquired as follows:

1. Stability Reports of the Hungarian National Bank were retrieved from the HNB's online repository, available at <https://www.mnb.hu/kiadvanyok/jelentesek/penzugyi-stabilitasi-jelentes/jelentes-a-penzugyi-stabilitasrol-2000-tol-2013-november-ig>.
2. Annual reports of the Hungarian Banking Association were retrieved from the Association's online repository, available at <https://www.bankszo-vetseg.hu/jelentesek.cshtml?lang=hun>.
3. Transcripts of the mortgage regulation debates of the Hungarian Parliament were purchased in a DVD format from the digital archive company Arcanum.

The first author supervised the data collection, which was carried out by research assistants, collaborators, and the first author at the Eötvös Loránd University of Budapest, Hungary. The first author analyzed the data using NVivo software. The article was jointly authored by the first and second authors. All qualitative data are currently stored on a password-protected Dropbox folder under the management of the first author. The survey data are stored in a project directory on the Open Science Framework.

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