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Article

# Socio-economic framework for the design of national household insolvency systems

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## Abstract

Lessons learned in the aftermath of the Financial Crisis of 2008 include that long, punitive household insolvency regimes have a negative societal impact, increase the potential for financial instability and hamper national economic recovery. We propose the *Socio-Economic Framework for Household Insolvency System Design* as a regulatory mechanism that aims to control national household debt and productivity levels. The system facilitates an informal resolution of the conflict between over-indebted households and their creditors. When this is not possible, the system grants immediate relief to no-income, no-assets and 'honest' households, that experienced over-indebtedness because of an external negative shock, such as a medical emergency. Finally, when the household does not qualify for immediate relief, the system allocates the costs of insolvency between the household and creditors, based on responsibility for the over-indebtedness. This reduces the moral hazard.

**Key words:** household debt, social policy, welfare state, financialization

**JEL classification:** H31 Fiscal Policies and Behavior of Economic Agents: Household, I38

Government Policy: Provision and Effects of Welfare Programs, K35 Personal Bankruptcy Law

## 1. Introduction

Financialization, fueled by deregulation in the late 1970s and 1980s, increased the size and influence of financial sectors within national economies. Credit became more accessible and acceptable and as a result levels of national household indebtedness increased in many countries (Fuller, 2015; Bezemer *et al.*, 2021; Comelli, 2021).<sup>1</sup> The result is that household debt, which was once considered a private matter, is now a policy concern in many countries

1 Comelli (2021) discusses how household debt has increased in Organisation for Economic Co-operation and Development (OECD) countries using data from 1998, 2008 and 2018. Many countries responded to the financial crisis of 2008 by shrinking household indebtedness, though, with the

(Comelli, 2021). In this study, *household indebtedness* refers to both collateralized, for example, mortgage or real-estate debt, and uncollateralized debt, for example, credit card debt and overdrafts.<sup>2</sup> *Over-indebtedness* arises when households experience financial difficulties that limit their ability to service their debt commitments in the long term (Eurofound, 2020).

Household indebtedness is beneficial for households as it enables them to secure assets, such as a home or an education (Medialdea García and Sanabria Martín, 2022). This increases household wealth and well-being and stimulates economic growth (Georgarakos *et al.*, 2010). However, household over-indebtedness has the opposite effect. It is a complex, multi-faceted phenomenon, caused and compounded by a combination of economic, social, institutional, individual and cultural factors (Civic Consulting, 2013). When a household's debt position shifts from indebtedness to over-indebtedness, it is usually a long-term financial problem that the household is unable to resolve without intervention (European Commission, 2008; Angel and Heitzmann, 2015). There are long-term negative social consequences for households as they are more likely to experience social and financial exclusion (Dobbie and Song, 2015). Indeed, financial stress is also associated with physical health issues such as depression and poor general health (French and McKillop, 2017).

Moreover, the problem extends beyond household financial distress. High national household debt levels have socio-economic consequences and result in larger income-to-wealth inequalities (Denk and Cournède, 2015). In addition, as the household loses the capacity to make repayments, creditors are negatively affected as they do not receive the income they were expecting. If the household files for insolvency and the debt is discharged, creditors bear the full loss (Raijas *et al.*, 2010). This increases the risk of financial instability. Creditors insure themselves against potential loss by restricting the supply of debt to less risky households and increasing borrowing costs for households in the future (Athreya, 2005). This has a negative social impact on all households (Raijas *et al.*, 2010). Moreover, high household debt levels within a country accentuate economic decline and hamper economic recovery in times of recession (Mian *et al.*, 2017).

The increasing realization that household debt and over-indebtedness have far-reaching implications for society, economies and financial institutions has sparked calls for a strategic approach to policymaking to prevent and not just to alleviate or manage it (Civic Consulting, 2013). Indeed, Montgomerie (2019) proposes that debt-dependent economies are unsustainable and that household debt should be gradually eliminated in order to prevent its long-term harmful consequences. In many countries, household insolvency systems are used to resolve the over-indebtedness problem. A household insolvency system is a statutory procedure for the collective settlement of household debt problems (Liu and Rosenberg, 2013).<sup>3</sup>

Prior literature has discussed the phenomenon of household over-indebtedness in developed countries, its causes and impact on households, moral hazard issues and stigmatization of participants (Braucher, 2006; Betti *et al.*, 2007; Disney *et al.*, 2008; Ramsay, 2017;

exception of Japan and Germany, most countries reported higher household debt as a percentage of net disposable income in 2018 relative to 1998.

- 2 Some studies refer to consumer over-indebtedness, which focuses on individuals (Betti *et al.*, 2007; McCormack *et al.*, 2016). We use households as the measurement unit (European Commission, 2008), as this has wider societal and economic implications.
- 3 Studies also refer to household insolvency as *consumer/personal insolvency* and *consumer/personal bankruptcy* (Niemi-Kiesiläinen, 1999; Ramsay, 2017).

Walter and Krenchel, 2021). Common causes of over-indebtedness identified in the literature include macro-economic shocks (e.g. recession and interest rate changes) and personal factors such as illness, divorce, lack of financial literacy and over-spending (Betti *et al.*, 2007; Disney *et al.*, 2008). Studies have also described the type of national household insolvency system adopted in developed countries (Niemi-Kiesiläinen, 1999; Levine, 2002; Heuer, 2014; 2015; Ramsay, 2017) and the interplay between household insolvency systems and credit supply (Schelkle, 2012). The findings suggest that countries that encourage credit, such as the USA, use the household insolvency system to compensate households for the increased risk of becoming over-indebted due to the increased risk of irresponsible lending practices. Other studies focus on income support policies and argue that insolvency systems are designed to substitute for welfare in countries, like the USA which has relatively weaker welfare systems compared to most European countries (Niemi-Kiesiläinen 1999). Deeper insights by Comelli (2021) uncover that type of welfare system is important to the risk of household over-indebtedness. However, no study has examined the combined influence of credit supply and income support policies on insolvency system design. There have also been calls for a systematic framework to be developed on household insolvency with a recognition of the need for a more lenient debt relief approach to be adopted relative to current approaches (Spooner, 2019; Eurofound, 2020; World Bank, 2020).

Therefore, in an extension to the literature and in response to the call for a national strategic approach to the management of household debt and over-indebtedness, this article contributes to the literature by proposing the *Socio-Economic Framework for Household Insolvency System Design*. This framework treats national household insolvency systems as regulatory mechanisms that function to control the flow of debt to households to reduce the risk of over-indebtedness and to provide an appropriate, timely resolution to household over-indebtedness when it arises. The framework suggests that in all instances an initial screening should ensure that only those considered to be over-indebted have access to the system. Once entering the system, a household should be encouraged to reach an informal settlement with its creditors. When this is not possible, households are categorized into two types. The first facilitates a fresh start for 'honest' households, being households that become insolvent due to adverse events (McCormack *et al.*, 2016) and households with no-income and no-assets (NINA) (Kilborn *et al.*, 2014). The second caters for when the over-indebtedness problem arises from dysfunctional decision-making. In these circumstances, the insolvency loss should be apportioned to the creditor or household depending on likely responsibility. As a result, the insolvency system acts as a deterrent against irresponsible lending and borrowing (McCormack *et al.*, 2016). In all circumstances, the irresponsible party undertakes financial education to reduce the risk of this happening in the future (French and McKillop, 2017). A quick resolution helps to reduce social issues associated with financial stress, such as income inequality, financial exclusion and mental health issues (McCormack *et al.*, 2016). In addition, it helps to reduce national economic risk and the risk of financial instability and to promote sustainable economic growth as households can return to economic productivity (Kilborn *et al.*, 2014).

The remainder of the article is organized as follows. The next section examines the literature on national household insolvency systems. The following section justifies a framework for the design of an optimal national household insolvency system. This is discussed in the penultimate section and compared to the systems in place in a number of countries. The last section outlines the conclusions and limitations.

## 2. Literature on national household insolvency systems

### 2.1 Evolution of national insolvency systems

The USA, England and Denmark were the first countries to introduce personal insolvency legislation in the 1970s and early 1980s with the prevalence of this type of legislation increasing in the late 1980s and 1990s in response to capital market liberalization and the increasing prevalence of mortgages (Hardie and Deeg, 2016; Jordà et al., 2017; Walter and Krenchel, 2021). This early legislation typically required a ‘repayment’ approach to personal insolvency (Ramsay, 2017). However, in the aftermath of the Financial Crisis of 2008, it became clear that long, punitive repayment regimes have a negative societal impact, increase the potential for financial instability and hamper national economic recovery (Mian and Sufi, 2014).

As a result, there have been growing calls from international policy-influencing institutions for governments to establish national personal insolvency systems that have a liberal approach to debt relief. For example, the European Commission (2008), the World Bank (2014) and the International Monetary Fund emphasize the need to design national insolvency systems that enable quick, easy and accessible debt relief (Liu and Rosenberg, 2013; Kilborn et al., 2014; McCormack et al., 2016; Ramsay, 2017). In addition, policymakers have highlighted that governments are part of the solution, for example, the European Foundation for the Improvement of Living and Working Conditions (Eurofound) identifies that EU policymakers have a role to play in reducing household indebtedness through credit policies that discourage the use of credit for those who cannot afford it and introducing insolvency systems to shorten the processing time for debt relief (Eurofound, 2020).

### 2.2 Models of national insolvency systems

Different approaches to dealing with household insolvency are evident across countries (McCormack et al., 2016; Walter and Krenchel, 2021) and are analyzed by scholars using different lenses. For example, some classify systems according to the stakeholder that bears the cost. They are referred to as household-friendly, as the creditor bears most of the cost of insolvency, or creditor-friendly, as the household bears most of the cost (Niemi-Kiesiläinen, 1999; Ramsay, 2017; Walter and Krenchel, 2021). Others, such as Heuer (2014) analyze national insolvency systems according to the range of debts that can be discharged, the length of the process and the scope of discretion afforded to insolvency administrators.

Heuer (2015) identified four types of system including the liability, mercy, restrictions and market model (Heuer, 2014; 2015). The ‘liability model’ is a creditor-friendly insolvency system as it promotes the repayment of the debt. This type of system is evident in Germany, where over-indebted households are typically tied into lengthy repayment plans.<sup>4</sup> This has negative social and financial exclusion consequences for households (Heuer, 2014) and does not cater for NINA households that are unable to repay their debts. The World Bank argues that tying NINA households into repayment plans is a waste of resources as they do not have the capacity to make repayments (Kilborn et al., 2014). It also creates

4 The German insolvency system for households changed in 2015 to require repayments to be made within three years, after which the remaining debt is discharged. However, the exact length of the repayment period is determined by insolvency administrators and is usually longer (Wang and Ward, 2020). For more detail, refer to the German Federal Ministry of Justice and Consumer Protection website. Available at: [https://www.bmjv.de/DE/Themen/FinanzenUndAnlegerschutz/ReformInsolvenzrecht/ReformInsolvenzrecht\\_node.html;jsessionid=03A7AA85FFA353F2D209F37D15682990.1\\_cid324](https://www.bmjv.de/DE/Themen/FinanzenUndAnlegerschutz/ReformInsolvenzrecht/ReformInsolvenzrecht_node.html;jsessionid=03A7AA85FFA353F2D209F37D15682990.1_cid324).

poverty traps for vulnerable people, such as immigrants, who typically arrive in countries having lost or sold all their possessions to finance the move (Datta, 2012). As the liability model approach is costly for households it deters them from seeking a resolution to their over-indebtedness problem (Heuer, 2014).

The ‘mercy model’ is also a creditor-friendly system that assumes households are responsible for their demise. However, under this system households may plead for mercy through the courts. This type of system is evident in France.<sup>5</sup> Access to debt relief through the courts typically depends on whether the debt amassed could have been avoided, the ability of the household to repay in the foreseeable future and insolvency officials’ interpretation of these conditions (Heuer, 2014). The discretionary nature of the mercy approach leaves it open to variation, and there are questions about equity and fairness (Heuer, 2014).

The ‘restrictions model’, has different paths for different households depending on the cause of the over-indebtedness. The paths typically include asset sales and debt repayment before debt relief or straight debt relief. Eligibility for the different paths depends on the assets, liabilities and other background information on the household (Heuer, 2014). This type of system is evident in England.<sup>6</sup> Though more accessible to households than the liability and mercy models, the restriction model restricts a household’s ability to access debt for a period after going insolvent, which can hamper a ‘fresh start’ (Heuer, 2014).

Finally, the ‘market model’ is a household-friendly system that supports straight debt relief. Heuer (2014) considers that a market model is the best approach as it combines economic efficiency with social inclusion. The view is that the risk and cost of insolvency are shifted from the household to the creditor. This is deemed appropriate as creditors can build insurance costs into the credit agreement and can limit their exposure to losses by adopting responsible lending practices. When households cannot repay, they receive a quick fresh start and as a result, experience economic reintegration and social participation. This type of system is evident in the USA.<sup>7</sup> However, some argue that this type of system increases moral hazard, as irresponsible households may use it to clear their financial difficulties (Athreya and Simpson, 2006).<sup>8</sup> Households are considered irresponsible when debt is accumulated due to overspending or a lack of financial literacy (Disney *et al.*, 2008; Heuer, 2014).

This section critiqued types of national household insolvency system. In the next section, we highlight the link between national household insolvency systems and national economic growth and societal well-being. We explain that household insolvency systems do not

5 The treatment of over-indebtedness in France has undergone several reforms over the years, including in 2010 and 2014. The courts have an important role in the system, with reforms introducing debt repayment and debt discharge for certain households (Ramsay, 2017).

6 England has three options including (a) *Debt Discharge* after 12 months, which is used when the debt is less than £30,000 and the applicant owns no home; (b) a *Debt Management Plan*, which is used when the applicant can make a small repayment every month; and (c) an *Individual Voluntary Arrangement*, which is used when the applicant makes regular repayments to creditors through an insolvency practitioner. For more detail, see <https://www.gov.uk/options-for-paying-off-your-debts>.

7 In the USA, households or individuals have two avenues for exiting from over-indebtedness. These avenues are covered by two ‘Chapters’ in the Bankruptcy Code. Households can either file for bankruptcy under ‘Chapter 7’ or ‘Chapter 13’. A Chapter 7 filing provides a quick exit for the individual, while a Chapter 13 filing leads to a repayment plan (Wang and Ward, 2020).

8 To reduce moral hazard the Bankruptcy Code in the USA was amended in 2005 to restrict eligibility for Chapter 7 bankruptcy to individuals who pass a means test (Nakajima, 2017).

operate within a vacuum and that financial regulation and government policies on household welfare influence household over-indebtedness risk and likely responsibility for over-indebtedness. Against this backdrop, we propose a conceptual framework for the design of national household insolvency systems that assumes the overall objective of the system is to regulate the flow of debt so that household over-indebtedness does not dampen national economic growth, and does not encourage dysfunctional behavior by creditors or households.

### 3. Designing national household insolvency systems

#### 3.1 Healthy household debt levels—economic growth and societal well-being

Over-indebted households are vulnerable to changes in the economy (Ramsay, 2017). When an economy declines, household debt levels within that economy accentuate the decline and hamper economic recovery as, in response to the precarious economic environment, households opt to save and pay off existing debt rather than increase consumption (Mian and Sufi, 2014; Mian *et al.*, 2017). This lengthens the economic recovery period (Mian *et al.*, 2017) with negative implications for society.

History has taught us that unforeseen environmental changes, for example, the financial crisis of 2008 and COVID-19, reduce the tipping point between indebtedness and over-indebtedness in countries and systems need to be able to respond quickly, to ensure social well-being and national economic recovery (World Bank, 2020). Failure to deal with the over-indebtedness problem results in financial exclusion and a build-up of under-productive households that hampers economic growth and increases the risk of financial instability (Liu and Rosenberg, 2013). Finally, though the financial crisis had negative implications for most households, the social implications for vulnerable low-income households were particularly severe, with many not only losing their jobs but also losing their homes. This accentuated the social divide between the rich and poor and by extension, between minorities, who are predominately in low-income households, and non-minorities.

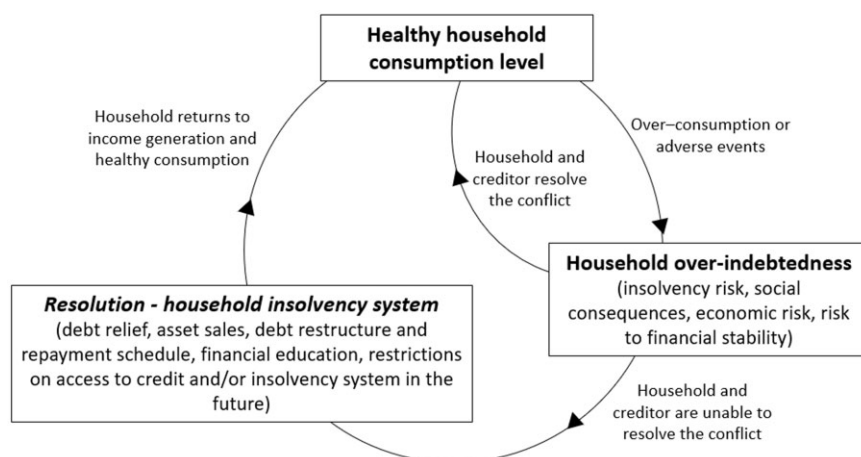
#### 3.2 Healthy household debt levels—the importance of government policies

Variation in national household debt to disposable income levels suggests national differences in ‘tipping points’, being the point at which a household becomes over-indebted. At this point, household insolvency systems become relevant (Angel and Heitzmann, 2015). The tipping point is influenced by government policies that influence the demand for and supply of debt (Braucher, 2006; Angel and Heitzmann, 2015), particularly mortgage debt, which accentuates the social and financial problems facing countries (Georgarakos *et al.*, 2010; Medialdea García and Sanabria Martín, 2022).<sup>9</sup> Moreover, there is no clear pattern to these policies which are ‘determined by an idiosyncratic mix of institutional, political and ideational factors’ (Fuller, 2015, p. 241).<sup>10</sup>

Therefore, as represented in Figure 1, national insolvency systems are only one part of the solution to over-indebtedness problems. The other part is government policies which

9 Georgarakos *et al.* (2010) find that a given debt burden is associated with higher financial distress in countries with lower prevalence of mortgage debt compared to countries with significant proportions of mortgage debt among homeowners.

10 See Fuller (2015) for an in-depth discussion of differences in credit encouragement and mitigation policies across national financial systems.



**Figure 1** Household insolvency system as a regulator of household consumption.

Source: Own elaboration from the literature.

should aim to ensure that households do not over-burden themselves with excessive levels of indebtedness.

We propose that a household insolvency system is a reactive solution to the household over-indebtedness problem, which arises when government policies are inadequate or when over-consumption, economic shocks or adverse events affect households. When households become over-indebted, they may negotiate a resolution with their creditors without the need to access a formal insolvency system. However, when a resolution is not forthcoming, a national household insolvency system is required to resolve the conflict and return households to financial health (Figure 1). Households that return to financial health and healthy consumption contribute to growth in the economy (McCormack *et al.*, 2016) as households have a greater incentive to work (Dobbie and Song, 2015).

### 3.3 Optimal household insolvency system design—common attributes

When creating a framework for the design of an appropriate national household insolvency system some consistent messages arise from the literature. First, there is no optimal design that suits all countries due to variations in national policies that affect income and credit risk (Fuller, 2015). Second, given the cost of formally entering the insolvency system, all national insolvency systems should have an initial screening facility that considers whether households and creditors can resolve the debt problem using informal agreements, before formally entering the insolvency system (McCormack *et al.*, 2016; Walter and Krenchel, 2021). This screening should reduce moral hazard and ensure that households that file as insolvent are ‘over-indebted’, as opposed to having high levels of debt that can be repaid. Third, the credit market is sophisticated and creditors can factor the risk of insolvency into debt pricing models. Therefore, creditors should suffer some of the cost of household insolvency (Raijas *et al.*, 2010). However, it is important not to penalize creditors too much, as they may react by increasing the cost of debt and restricting the supply of debt to



households. This reduces consumption and economic growth and has wider social implications, including increased financial exclusion and demand from households for usury (Ramsay, 2017).

On entry to the system, our *Framework for the Design of National Household Insolvency Systems* proposes two options depending on circumstances: straight debt relief or debt rescheduling. Straight debt relief should be available to ‘honest’, vulnerable, low-income households so they do not fall into a poverty trap. This enables these households to quickly regain capital productivity, thus minimizing the social and overall economic cost of insolvency (Kilborn *et al.*, 2014; McCormack *et al.*, 2016; Walter and Krenchel, 2021). However, the provision of immediate debt relief should not create moral hazard (McCormack *et al.*, 2016). It should not be attractive for households to move from healthy household debt to household over-indebtedness just to clear their debt commitments (Heuer, 2014) or to borrow irresponsibly in the knowledge that their debt will be written off in the event of them experiencing an adverse event (Athreya and Simpson, 2006). Therefore, these households should have no surplus funds or assets that are not considered to be necessities, to become eligible.

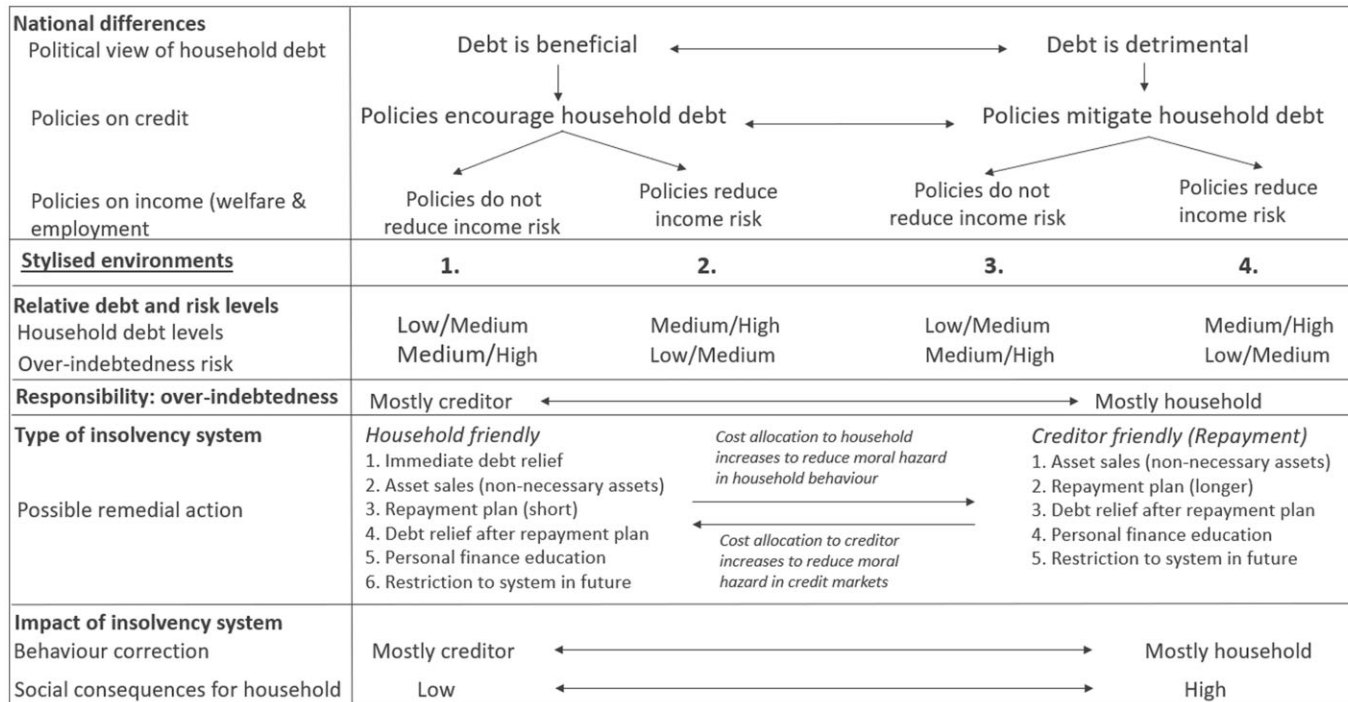
A debt rescheduling option, aimed at reducing moral hazard, is available in all other instances. This article proposes a normative framework to guide debt rescheduling design within the national household insolvency system, given differences in national policies that influence income risk and debt supply.<sup>11</sup> This framework is informed by the literature and is presented in Figure 2. To convey the key assumptions underpinning the framework four stylized national environments are assumed: (a) debt encouragement; high-income risk; (b) debt encouragement; low-income risk; (c) debt mitigation; high-income risk; and (d) debt mitigation; low-income risk.

Influences of household credit and income risk on household debt levels are now examined.

### 3.4 Household debt levels: credit risk

Policymakers influence the supply of debt. For example, they can legislate for credit quotas, credit controls, credit ceilings, restrictions on foreign bank entry and mortgage subsidies (Bezemer *et al.*, 2021). The extent of deregulation and policies that influence the supply of debt differs across countries and, in countries where governments are democratically elected, differences in liberalization reflect the country’s political attitude toward household indebtedness (Fuller, 2015; Walter and Krenchel, 2021). In particular, housing policies have a material impact on household indebtedness as mortgage lending makes up the greatest proportion of household indebtedness (Jordà *et al.*, 2017; Comelli, 2021; Medialdea García and Sanabria Martín, 2022). When policymakers hold the view that debt provides opportunities for households and the economy, financial regulation is liberal and governments implement policies to encourage household debt, including no/low deposit requirement when seeking debt to purchase a house and tax incentives for mortgage interest (Fuller, 2015;

11 A myriad of interlinked factors is argued to influence the design of national household insolvency systems, including culture, taxation, views of trade unions and political factors including government ideas on the importance of the financial sector and public opinion (Fuller, 2015; Ramsay, 2017). In this article, we focus on policies affecting household income risk and credit availability as they can be measured (Fuller, 2015).



**Figure 2** Socio-economic framework for household insolvency system design—managing moral hazard.

Montgomerie and Büdenbender, 2015; Bezemer, *et al.*, 2021). For example, in the period before the financial crisis of 2008, US policymakers supported the creation of a mass mortgage market for both low- and middle-income classes (Trumbull, 2012). When there is a high level of debt supply, households are more likely to borrow more as it is relatively easy to obtain and can lead to over-indebtedness (Fuller, 2015; Mian *et al.*, 2017). In Figure 2, the stylized Environments 1 and 2 have liberal credit policies.

When policymakers view debt as detrimental, they implement debt mitigation policies, including strict lending practices on personal loans and strict credit history checking for credit card applications, that serve to reduce the supply of debt available to households (Bezemer *et al.*, 2021). For example, European policymakers typically strive to reduce mortgage risk for households, and hence financial regulation is more restrictive (Schelkle, 2012). The EU's Mortgage Credit Directive (2014), which applies to all member states, regulates interest calculations and requires the inclusion of worst-case scenarios in mortgage information sheets (Eurofound, 2020). Moreover, in some countries, such as Germany, policymakers promote savings to make households more resilient, so they do not have to turn to debt when they experience abnormal events (Mertens, 2017). In Figure 2, the stylized Environments 3 and 4 have mitigating credit policies. Countries with these policies will have lower household debt levels relative to stylized Environments 1 and 2.

### 3.5 Household debt levels: income risk

Household income risk also affects household debt levels, as more household debt is reported when income risk is lower (Coletta *et al.*, 2019; Comelli, 2021). In general, high-income households are not high-income-risk households as they have excess income and surplus assets (Angel and Heitzmann, 2015; Medialdea García and Sanabria Martín, 2022). In contrast, low-income households experience higher income risk. They are sensitive to adverse events and economic downturns as they have limited excess income and surplus assets (European Commission, 2008; Angel and Heitzmann, 2015; Medialdea García and Sanabria Martín, 2022).

National policies on employment<sup>12</sup> and welfare<sup>13</sup> affect income risk in lower-income households (Liu and Rosenberg, 2013). In countries with weak employment and welfare policies, portrayed by stylized Environments 1 and 3 in Figure 2, it is argued that debt is used as a substitute by low-income households to insure against adverse events, such as health issues or temporary loss of employment (Coletta *et al.*, 2019); to maintain constant consumption when wages stagnate (Coletta *et al.*, 2019; Spooner, 2019) and to enable access to assets and consumables that are not provided by the welfare state (Trumbull, 2012; Mertens, 2017; Ramsay, 2017). For example, Ansell (2014) reported an increased requirement for mortgages from the private sector to secure long-term housing when accommodation is not provided by the state, and Mertens (2017) found that student loans are used to

12 Include policies on minimum wage levels, health and safety, sick pay, maternity and paternity pay, redundancy and pensions.

13 Welfare is not homogenous across nations. Some policies apply to all citizens, for example, education and health in the UK. Other welfare policies provide income protection to those who contributed to the welfare system through employment, for example, unemployment benefit and pensions. Finally, policies may segregate depending on social risk, for example, by supplementing childcare costs for families (Comelli, 2021).

fund higher-level education when government funding is not available. [Medialdea García and Sanabria Martín \(2022\)](#) report that debt is used to finance house purchases in Spain as opposed to consumption.

In countries with strong employment and welfare policies, portrayed by stylized Environments 2 and 4 in [Figure 2](#), governments take the view that citizens should have guaranteed minimum living standards, therefore, low incomes are supplemented and redistribution of wealth occurs, for example, by providing family support to households who have high childcare costs ([Comelli, 2021](#)). This reduces income risk for these households and hence enables them to access and service debt ([Angel and Heitzmann, 2015](#)). Strong labor and welfare policies also act like insurance, providing additional support to households when they experience an abnormal event that causes income uncertainties, for example, unemployment, illness or accident ([Rowlingson et al., 2016](#)). Welfare policies that promote education increase the demand for debt as education increases job expectations, hence reducing income risk ([Riddell and Song, 2011](#); [Comelli, 2021](#)). Educated households are less likely to become over-indebted ([Agarwal et al., 2010](#)). Therefore, government education policies that target low-income households, reduce household over-indebtedness risk ([French and McKillop, 2016](#)). Hence, household debt is more attainable in countries with strong labor and welfare policies as the risk of default is lower. Consistent with the latter view, [Coletta et al. \(2019\)](#) in a study of 33 countries reported a positive link between household debt levels and liberal or social-democratic welfare regimes. Therefore in [Figure 2](#), stylized Environments 2 and 4 should have higher debt levels relative to stylized Environments 1 and 3.

As a result of this process, *relative* debt level classifications are assigned to the four stylized environments. Environments with policies that encourage household debt but do not reduce income risk are expected to have low to medium levels of household debt as access is restricted by creditors, but medium to high levels of over-indebtedness risk (stylized Environment 1). Environments with policies that encourage household debt and reduce income risk are expected to have medium to high levels of household debt as access from creditors is greatest, but low to medium levels of over-indebtedness risk due to reduced income risk (stylized Environment 2). Environments with policies to mitigate household debt and that do not reduce income risk will have low to medium household debt levels, and medium to high levels of over-indebtedness risk (stylized Environment 3). Finally, environments with policies that mitigate household debt but reduce income risk will have medium to high levels of household debt due to higher accessibility and low to medium levels of over-indebtedness risk (stylized Environment 4).

To cater for variation from the four stylized environments, we propose an insolvency cost-allocation continuum that ranges from systems that are household-friendly, wherein the creditor bears the full cost of insolvency to creditor-friendly, wherein the household contributes more to the cost of insolvency. Therefore, consistent with [Niemi-Kiesiläinen \(1999\)](#) and [Raijas et al. \(2010\)](#) the framework proposes that the level of penalty depends on responsibility for over-indebtedness, which may differ across countries, given a country's stance on household debt and income support and the actions of the creditor and household ([Figure 2](#)).

In the next section, we discuss the socio-economic framework in light of current sentiment toward household insolvency and the importance of ensuring that insolvency systems do not create moral hazard. Finally, to enable operationalization, we suggest proxies for

national income and credit risk and examine whether the national household insolvency systems in seventeen countries are likely to regulate household debt levels in support of economic growth and societal well-being.

## 4. Discussion and practical application

### 4.1 Changing environment—a new approach?

National household insolvency systems in European countries historically tended to be creditor-friendly systems that emphasized selling assets to meet debt restructuring agreements that extended to several years, with debt relief used as an option of last resort. This approach was defended on the grounds that in European countries, welfare support provided a guaranteed basic minimum income and, in many instances, also compensated households when they experienced an adverse event. Therefore, households were deemed responsible for their precarious position and household insolvency systems' focus on repayment was a tool to reduce moral hazard (Heuer, 2014). However, this 'creditor-friendly' approach became outdated as the environment changed. Welfare support decreased and financialization resulted in financial institutions having more influence over credit policies and economic growth which was partially driven by increasing levels of household consumption and indebtedness. Indeed, it could be argued that, because of the environmental shift, creditor-friendly insolvency systems, combined with risky government policies such as sub-prime lending, promoted dysfunctional behavior by creditors, particularly when economies were growing and house prices increasing. In this environment, creditors were able to provide expensive debt, particularly secured mortgage debt, to those who could not afford to pay, knowing that a creditor-friendly insolvency system ensures recovery of funds owed when the underlying 'higher-priced' asset is liquidated. Therefore, there are calls for change, with procedures targeted at reducing moral hazard in creditor behavior to reduce the risk of over-indebtedness (Spoonier, 2019).

The financial crisis of 2008 highlighted the extent of dysfunctional behavior by creditors. There were many foreclosures. In addition, households that were tied into long punitive repayment plans responded by reducing household consumption, focusing on debt repayment and building up savings (Mian and Sufi, 2014; Fuller, 2015). This hampered national economic recovery (Mian *et al.*, 2017). As a result, there is growing support among policy-makers for the inclusion of immediate debt relief for 'honest but unfortunate' households and for a conceptual framework to be designed that provides a system that is easy to access, has flexible options for debt rescheduling and makes creditors more responsible in their decision-making (Ramsay, 2017; World Bank, 2020).

### 4.2 Insolvency systems as regulators of household indebtedness: reducing moral hazard

Under our framework, household insolvency systems should deter dysfunctional decision-making by households and creditors. The main hazards are that creditors provide debt too easily knowing that households incur the risk of loss, or households borrow excessively knowing that creditors incur the risk of loss (Ramsay, 2017). An examination of national policies that influence the supply of debt and income risk enables likely responsibility for the loss resulting from dysfunctional behavior, such as excessive risk-taking by creditors or

over-consumption by households, to be identified. The threat of having to bear the loss of over-indebtedness reduces the moral hazard.

In terms of responsibility, when markets are liberalized and policies are implemented to promote debt (stylized Environments 1 and 2 in Figure 2), there is a view that household over-indebtedness is caused by the failure of financial markets to regulate themselves resulting in optimism and overleveraging by creditors in asset markets (Niemi-Kiesiläinen, 1999; Levine, 2002; Bezemer *et al.*, 2021). It is argued that creditors often have more information and expertise than households and hence are better able to assess the risk of household over-indebtedness when providing debt, as they have access to economic predictions and credit reporting systems. As a result, creditors factor the cost of insolvency into product pricing and promote high-interest, short-term debt products to risky households (Levine, 2002). This is also a conducive environment for expensive legitimate alternative finance providers, such as payday lenders and easily accessed credit cards, to provide an array of expensive products (Aitken, 2010). These products are volatile as economic conditions often dictate contract conditions (König, 2016). Moreover, creditors can diversify away some credit risk, through the securitization and sale of risky debt to investors, and as a result, the consequences of irresponsible lending for a creditor are lower than the consequences of over-indebtedness for households. Therefore, consistent with McCormack *et al.* (2016) our framework suggests that countries with liberal credit markets adopt household-friendly insolvency systems as creditors are complicit in the insolvency loss. Under this type of system, a greater proportion of the loss is allocated to creditors. This financial penalty should reduce moral hazard in creditor behaviors.

When countries pursue debt mitigation policies as in stylized Environments 3 and 4 (Figure 2), over-indebtedness is more likely to arise as a result of an adverse event or dysfunctional behavior by the household (Niemi-Kiesiläinen 1999; Wang and Ward, 2020). When the cause is an adverse event, any household, that has made a genuine attempt to mitigate creditor losses, should be entitled to immediate debt relief on initial screening. In all other instances, a creditor-friendly insolvency system that protects creditors' rights by reducing moral hazard in household behaviors is required to curb over-consumption behavior. Therefore, a greater portion of the cost of insolvency should be allocated to the household.

The responsibility for household over-indebtedness is also impacted on by the government approach to income risk. Government interventions that reduce income risk and guarantee a minimum standard of living, as in stylized Environments 2 and 4, make money management easier and as a result the risk of becoming over-indebted is lower (Schelkle, 2012; Rowlingson *et al.*, 2016). In this environment, individual characteristics and lifestyle choices are more likely to contribute to the household's precarious position (Niemi-Kiesiläinen 1999; Oksanen *et al.*, 2015). Studies indicate that relative to the USA, which has relatively weak welfare support for households, European countries are more likely to consider over-indebtedness as a social problem due to the prominence of welfare and labor regimes in guaranteeing minimum income levels (Niemi-Kiesiläinen, 1999; Oksanen *et al.*, 2015; Ramsay, 2017). In this environment, the insolvency system should penalize households as a means of mitigating irresponsible borrowing behavior by households. Actions to reduce irresponsible behavior by households under a national household insolvency system include asset sales, debt restructuring, court settlements and financial education (McCormack *et al.*, 2016).

A flexible approach is ‘best in terms of allowing adaptability to the individual household’ (McCormack *et al.*, 2016, p. 347). However, a flexible approach is time-consuming, costly to administer and introduces subjectivity to the process (Heuer, 2014). Therefore, we propose that household insolvency system measures to regulate household dysfunctional behavior should focus on debt rescheduling with repayment periods that cover a limited period of time (König, 2016; Walter and Krenchel, 2021) or a minimum proportion of the debt outstanding. When the target date or amount is met, all outstanding debt should be discharged (McCormack *et al.*, 2016). Most countries limit this period to an average of 3–5 years (e.g. Germany and Sweden). This reduces moral hazard and emphasizes households’ responsibilities in the process (McCormack *et al.*, 2016). The longer the repayment period, the more protection to creditors. This is necessary when creditors are less likely to have contributed to the problem, as is the case when household debt is restricted by government regulation and policies (stylized Environment 4). When policies encourage debt and reduce income risk (stylized Environment 2), then an equitable insolvency system should provide an equilibrium cost allocation between creditors and households. Therefore, a short repayment period, up to 12 months, is recommended.

In all instances, the ‘first-time’ penalty on households should be restricted to the sale of non-essential assets and should not have long-term consequences for the household, as households shackled with unaffordable debt are unable to regain economic independence which is beneficial for the economy, financial stability and societal well-being. Debt discharge for NINA households helps to reduce social inequality and to break the poverty trap that some low-income households find themselves in. This option also deters dysfunctional behavior by creditors, such as providing high-interest credit card debt or mortgages to households that are unlikely to pay, as the creditor bears the full cost of insolvency. However, a negative consequence of this is restricted access to credit for low-income households, who may turn to the illegal usury market (Coletta *et al.*, 2019). The risk of usury is not addressed in this article, as it is best managed using the criminal law system, not the insolvency system.

Immediate debt discharge should be accompanied by a requirement to undertake financial education so that vulnerable households are better able to manage their finances in the future (Dick and Jaroszek, 2013; French and McKillop, 2016). Topics can include the importance of savings and emergency funds, the downside of usury, and information on alternative, social-friendly debt options, such as loan products provided by credit unions. In countries with weak healthcare provisions, Governments should provide assistance for low-income and NINA households in the form of insurance or an interest-free loan with affordable repayments, that is written off after a short period of time. To reduce moral hazard, controls over access to immediate debt relief include ensuring that households have investigated possible claims under insurance, employment and welfare emergency funds that are available for such an event. Finally, given the household has completed financial education, they need to prove that their precarious situation in the future did not arise as a result of dysfunctional financial decision-making.

The focus of debt rescheduling should be on negotiating lower interest rates and repayments to ensure they are affordable to households (Montgomerie, 2019) though not too punitive in terms of duration as a quick resolution is important for well-being and economic growth. The system should protect household essential assets that are necessary for well-being and productivity. Locking households into long-term repayment schedules is not

always efficient as these households are already struggling to pay. Therefore, the system must be easily accessible but designed so that households and creditors are encouraged to resolve the conflict informally. However, it should discourage repeat behavior. The repayment duration should increase each time the household accesses the system and qualifies for the repayment process. Moreover, households that have already obtained relief under the repayment process should have to wait for a minimum duration before gaining access in subsequent years.

Household insolvency system design is complex with far-reaching social and economic consequences for households and wider implications for national economic growth and financial stability if designed poorly. Consequentially, policymakers should review the system periodically and amend their policies and cost allocation accordingly if it is evident that the current system does not avert moral hazard and is not resolving the over-indebtedness problem efficiently.

Finally, given the link between financial education and household over-indebtedness, governments should target sections of the population, predominately low-income households, to promote awareness of money management skills including budgeting and managing bills (French and McKillop, 2016). Financial awareness should improve financial decision-making, reducing the likelihood of becoming over-burdened, directly helping to reduce social inequality between income classes.

### 4.3 Practical application of the framework

The framework suggested in this study has practical implications and can be operationalized. Proxies for the strength of proactive policy for managing household indebtedness are available in the literature. For example, when examining differences in national policies in respect of debt availability, Schelkle (2012) identified three classifications based on strength of financial regulation, the most liberal (e.g. the USA), some regulatory restrictions (e.g. the UK) and the least liberal (e.g. France). König (2016) described national regulation as market-based (liberalized) or bank-based (restrictive). Fuller (2015) provided a detailed analysis of specific government policies across 32 countries, that influenced credit supply to households. Policies that incentivized household debt were allocated a positive value, and policies mitigated against increasing household debt were awarded a negative value. A country's score represented the total of the individual policies. Using the outcome of this, Fuller (2015) created a national index. The scale ranged from a positive score of 3 (permissive) to a negative score of  $-7$  (dampening).<sup>14</sup> The relative score reflects the aggressiveness of the intervention and enables comparison across nations. This study applies Fuller's (2015) index to classify countries as it has a wide range of values enabling greater differentiation between countries in terms of credit supply.

Gross domestic product (GDP) was used in some early studies as an economic welfare indicator (Wilensky, 1975). However, it is deemed to be too narrowly focused on economic output. A better proxy for income risk is national policies on welfare-state support. Welfare support policies include policies to provide a minimum income level and policies that reduce costs, either directly through the provision of medical services, childcare support, or education and indirectly by providing services that improve social well-being. The extent of welfare support can be determined by focusing on outcomes such as the degree of

14 For a detailed description of the index, see Fuller (2015).



**Table 1** Recommended repayment plan type in selected countries

Country	Credit supply National Index for Credit Supply (3 to -7) <sup>a</sup>	Income risk SPI score (Tier) <sup>b</sup>	Household debt as a % of disposable income	Over-indebtedness risk predicted	Over-indebtedness	Repayment plan type recommended under the <i>Socio-Economic Framework for National Household Insolvency Design</i>
USA	3	83.62 (2)	101.08	Medium/high	n.a.	Household-friendly system <sup>c</sup>
Lithuania	1	81.30 (3)	40.86	Medium/high	26%	Household-friendly system
Czech Republic	1	84.36 (2)	77.10	Medium/high	18%	Household-friendly system
Spain	1	87.47 (2)	106.02	Medium/high	22%	Household-friendly system
Ireland	1	87.97 (1)	119.04	Low/medium	15%	Household-friendly system
UK	1	87.98 (1)	147.74	Low/medium	15%	Household-friendly system
Canada	0	88.81 (1)	185.62	Low/medium	n.a.	Different approaches for different households with the cost allocation between household and debt providers dependent on responsibility.
New Zealand	0	88.93 (1)	122.28	Low/medium	n.a.	Different approaches for different households with the cost allocation between household and debt providers dependent on responsibility
Denmark	0	90.09 (1)	249.42	Low/medium	13%	Different approaches for different households with the cost allocation between household and debt providers dependent on responsibility
South Korea	-1	85.61 (2)	197.87	Medium/high	n.a.	Creditor-friendly system <sup>d</sup>
Australia	-1	88.02 (1)	202.00	Low/medium	n.a.	Creditor-friendly system
Norway	-1	90.95 (1)	240.98	Low/medium	n.a.	Creditor-friendly system
Greece	-2	82.48 (2)	97.42	Medium/high	69%	Creditor-friendly system

*continued*

**Table 1** *Continued*

Country	Credit supply National Index for Credit Supply (3 to -7) <sup>a</sup>	Income risk SPI score (Tier) <sup>b</sup>	Household debt as a % of disposable income	Over-indebtedness risk predicted	Over-indebtedness	Repayment plan type recommended under the <i>Socio-Economic Framework for National Household Insolvency Design</i>
Hungary	-3	78.77 (3)	44.84	Medium/high	26%	Creditor-friendly system
Belgium	-3	86.77 (2)	118.51	Medium/high	22%	Creditor-friendly system
Germany	-5	88.84 (1)	102.19	Low/medium	13%	Creditor-friendly system
Italy	-5	85.69 (2)	90.92	Medium/high	29%	Creditor-friendly system

Sources: Fuller (2015), the Social Progress Index (2019), OECD Data available at <https://data.oecd.org/hha/household-debt.htm>, Eurofound (2020), own elaboration. n.a., no data available.

<sup>a</sup>A score of 3 represents the maximum relative value for national policies that promote credit availability and -7 represents national policies that have the greatest dampening effect on credit supply.

<sup>b</sup>A score of 100 represents the maximum social support. Tiers are provided by SPI.

<sup>c</sup>Depending on circumstances this may involve the sale of non-essential assets followed by immediate debt relief or a short affordable repayment plan (e.g. less than 12 months). Debt relief is available after the repayment plan. Leniency decreases in subsequent settlements up to a maximum duration (e.g. up to 3 years) depending on the number of times the system has been accessed previously and the extent of responsibility for the loss. There is a moratorium before the system can be accessed again and no access to this option if the household is a serial offender. However, immediate debt relief is always available for honest households who experience an adverse shock and NINA households, even if they have accessed the system before.

<sup>d</sup>For example, this may involve the sale of non-essential assets followed by a repayment plan wherein the duration is longer than that for household-friendly systems (e.g. starting at 12 months). Debt relief is available after the repayment plan. The duration is dependent on the extent of responsibility for the indebtedness situation and the number of times the system has been accessed previously, up to a maximum duration (e.g. 3 years in the first instance). There is a moratorium before the system can be accessed again and no access if the household is a serial offender. Immediate debt relief continues to be available for honest households who experience an adverse shock and NINA households, even if they have accessed the system before.

**Table 2** Current national insolvency system design in selected countries

Country	Over-indebtedness risk (high, medium, low)	Informal settlement as part of the procedure	Immediate debt relief availability	Asset sales and repayment plans	Repayment plan type
Lithuania <sup>a</sup>	High	Not available	Not available	Asset sale administered, followed by a repayment plan with no limitation on the duration	Creditor-friendly system
South Korea <sup>b</sup>	Medium	Court-mediated debt workout programs are available	Not available	Asset sale administered, with a repayment plan for a maximum of 3 years	Household friendly system
Czech Republic <sup>a</sup>	Medium	Encouraged to reach an agreement within 1 month	Not available	Asset sale administered, with a repayment plan for a maximum of 5 years	Creditor-friendly system
USA <sup>c</sup>	Medium	Not available	Immediate debt relief of certain types of debt under Chapter 7 of the Bankruptcy Code, if debtors pass the means test <sup>d</sup>	Asset sale administered, with repayment plan under Chapter 13 for a maximum of 5 years	Creditor-friendly system
Greece <sup>a</sup>	Medium	For mortgage debt insolvency, an out-of-court settlement must be sought first	Not available	Asset sale administered, with a repayment plan for a maximum of 3 years	Household-friendly system
Norway <sup>c</sup>	Medium	Debtors can draft a repayment proposal for creditors without court intervention	Not available	Asset sale administered, with a repayment plan for a maximum of 5 years, and at least 25% of debt repaid	Creditor-friendly system
Denmark <sup>a</sup>	Medium	Not available	Individuals have the option to file for bankruptcy and commit to asset sales and discharge at end of the procedure	Asset sale administered, with a repayment plan for a maximum of 5 years	Creditor-friendly system

*continued*

**Table 2** *Continued*

Country	Over-indebtedness risk (high, medium, low)	Informal settlement as part of the procedure	Immediate debt relief availability	Asset sales and repayment plans	Repayment plan type
Hungary <sup>a</sup>	Medium	Debtors have 120 days to reach an agreement with their creditors	Not available	Asset sale administered, with a repayment plan for a maximum of 7 years	Creditor-friendly system
Belgium <sup>f</sup>	Medium	Not available	Available if debtor deemed incapable of making repayments with full asset liquidation	Asset sale administered, with a repayment plan for a maximum of 7 years	Creditor-friendly system
Spain <sup>a</sup>	Medium	Debtors have 2 months to reach an agreement with their creditors	Available upon a court ruling	Asset sale administered, with a repayment plan for a maximum of 10 years	Creditor friendly system
Italy <sup>a</sup>	Low	Debtors can propose a repayment plan to creditors, with the help of a crisis resolution body or approved by a judge	Not available	Asset sale administered, with a repayment plan for a maximum of 4 years	Creditor friendly system
Germany <sup>g</sup>	Low	Not available	Not available	Asset sale administered, with a repayment plan for a maximum of 6 years	Creditor friendly system
Ireland <sup>h</sup>	Low	Debtors can make effort to settle on a Debt Settlement Arrangement with creditors	Debt Relief Notice is available for those who owe less than €35,000, with less than €60 disposable monthly income and assets under €400	Asset sale administered, with a repayment plan for a maximum of 3 years for debt over €20,000	Household-friendly system
Canada <sup>i</sup>	Low	A voluntary debt management plan may be agreed upon between the debtor and creditors	Unsecured debt will be discharged if a debtor's assets, valued at fair market value, cannot cover the debt in full	Asset sale administered, with a repayment plan for a maximum of 3 years for debtors with higher incomes and repeat filers	Different approaches

*continued*

**Table 2** *Continued*

Country	Over-indebtedness risk (high, medium, low)	Informal settlement as part of the procedure	Immediate debt relief availability	Asset sales and repayment plans	Repayment plan type
UK <sup>j</sup>	Low	An individual voluntary arrangement may be set up with the help of an insolvency practitioner	Available where the debt amount is less than £30,000 and the debtor owns no home	Repayment plan with no limitation on the repayment period	Different approaches
New Zealand <sup>k</sup>	Low	Not available	Available where a debtor has no assets and no income and owes between \$1,000 and \$50,000	A repayment plan is agreed upon in court, with some debt discharged after the repayment period. There is no maximum duration of the repayment period	Different approaches
Australia <sup>l</sup>	Low	A personal insolvency agreement may be set up, where a trustee supervises the repayment of the debt in installments or a lump sum	Available where the debtor's income is not enough to cover debt repayments. There is no limit on the amount owed. Debt will be discharged after 3 years and 1 day	A repayment plan is set up for a maximum of 3 years	Household-friendly system

Sources: Compiled by the authors from the following (except superscript 'd').

<sup>a</sup>Eurofound (2020).

<sup>b</sup>Korean Legislation Research Institute, accessed at [https://elaw.klri.re.kr/kor\\_service/lawView.do?hseq=46315&lang=ENG](https://elaw.klri.re.kr/kor_service/lawView.do?hseq=46315&lang=ENG) on October 26, 2022.

<sup>c</sup>US Courts, accessed at <https://www.uscourts.gov/services-forms/bankruptcy> on October 26, 2022.

<sup>d</sup>A 'means test' is required when a debtor's 'current monthly income' is more than the state median. Abuse is presumed if the debtor's monthly income over 5 years, net of statutorily allowed expenses and secured debt payments, exceeds the lesser of (a) 25% of the debtor's nonpriority unsecured debt or \$9,075, whichever is greater, or (b) \$15,150. Source: <https://www.uscourts.gov/services-forms/bankruptcy>.

<sup>e</sup>Konkursradet, accessed at <https://www.konkursradet.no/insolvency-in-norway.5304843-300329.html> on October 23, 2022.

<sup>f</sup>Dentons (2021), The New Belgium Insolvency Law, accessed at <https://www.konkursradet.no/insolvency-in-norway.5304843-300329.html> on October 23, 2022.

<sup>g</sup>Insolvency Code, accessed at [https://www.gesetze-im-internet.de/englisch\\_inso/englisch\\_inso.html](https://www.gesetze-im-internet.de/englisch_inso/englisch_inso.html) on October 23, 2022.

<sup>h</sup>Insolvency Service of Ireland, accessed at [https://www.isi.gov.ie/en/ISI/Pages/New\\_Bankruptcy](https://www.isi.gov.ie/en/ISI/Pages/New_Bankruptcy) on October 23, 2022.

<sup>i</sup>Justice Laws of Canada, accessed at <https://laws-lois.justice.gc.ca/eng/acts/B-3/> on October 23, 2022.

<sup>j</sup>GOV.UK, accessed at <https://www.gov.uk/options-for-paying-off-your-debts> on October 23, 2022.

<sup>k</sup>New Zealand Insolvency and Trustee Service, accessed at <https://www.insolvency.govt.nz/personal-debt/personal-insolvency-options/> on October 23, 2022.

<sup>l</sup>Australian Financial Security Authority, accessed at <https://www.afsa.gov.au/> on October 23, 2022.

decommodification and social stratification the programs offer (Scruggs and Allan, 2006). This includes factors such as leisure, inequality, living standards, life expectancy, and natural environment (Jones and Klenow, 2016). Consistent with this view, studies have proposed indices to reflect differences in welfare support, for example, the Commodification Index (Esping-Andersen, 1990) and the Generosity Index (Scruggs and Allan, 2006). The United Nations proposed a Social Policy Index in 2006, which measures social policies in different countries. This is an appropriate indicator of household income risk, however, the results are not yet available.<sup>15</sup> As an alternative, this article uses the Social Progress Index (SPI) to provide a relative measure of the extent of welfare support across countries. The SPI is an aggregate score that measures countries' abilities in providing their citizens with protection over their basic needs, the quality of their lives, and opportunities for development. The score ranges from 24.44 (South Sudan) to 90.95 (Norway). The higher the score the greater the support (SPI, 2020).

To operationalize the *Socio-Economic Framework for National Household Insolvency System Design*, this study categorizes 17 countries, with data available on the SPI that also have a score on Fuller's (2015) national index for credit supply, according to the relative risk of household over-indebtedness.<sup>16</sup> Information on the type of national insolvency system in place in the selected countries, as well as the recommended types of insolvency systems under the framework, is provided in Tables 1 and 2.

Consistent with the assumptions underpinning the framework, stylized Environment 1 type countries, such as the USA, and Spain, that encourage household debt (Table 1, Column 1—positive credit index score) but do not reduce income risk (Table 1, Column 2—SPI score [2 or 3]) have low to medium household debt levels (Table 1, Column 3—range from 101.08% to 106.02%) and medium to high levels of over-indebtedness (Table 1, Column 5—range from 18% to 26%). Consistent with studies that note that other factors including history, culture and treatment of over-indebted households influence household debt levels, Lithuania and the Czech Republic, as 'post-socialist regime' countries (Angel and Heitzmann, 2015) have low levels of household debt relative to disposable income (40.86% and 77.10%) and medium to high levels of over-indebtedness (26% and 18%) and when compared to other countries in the sample.

In congruence with the assumptions underpinning the framework, stylized Environment 2 type countries such as Ireland, the UK, Canada, New Zealand and Denmark, that encourage or do not deter household debt (Table 1, Column 1—positive or neutral credit index score) and reduce income risk (Table 1, Column 2—SPI score [1]) report medium to high levels of household debt when expressed as a proportion of disposable income (Table 1, Column 3—range from 122.28% to 249.42%) and low to medium levels of over-indebtedness (Table 1, Column 5—range from 13% to 15%).

In line with the assumptions underpinning the framework, stylized Environment 3 type countries, such as Greece, Belgium and Italy, that discourage household debt (Table 1, Column 1—negative credit index score) and do not reduce income risk (Table 1, Column 2—SPI score [2]) have low to medium levels of household debt (Table 1, Column 3—range

15 See: [https://www.unrisd.org/unrisd/website/projects.nsf/\(httpProjects\)/E9F2C188981C9689C12572300050F230?OpenDocument&category=Description+du+projet+en+chinois](https://www.unrisd.org/unrisd/website/projects.nsf/(httpProjects)/E9F2C188981C9689C12572300050F230?OpenDocument&category=Description+du+projet+en+chinois)

16 For robustness, the countries were also mapped to the framework using GDP as a measurement for social welfare (available from the authors on request).

from 90.92% to 118.51%), and medium to high levels of over-indebtedness (Table 1, Column 5—range from 22% to 69%). South Korea and Hungary are exceptions. South Korea's high household debt levels (Table 1, 197.87%) are fueled by the high cost of real estate, reductions in household income, and a culture of using personal borrowing to fund business needs (Tan, 2021). Policymakers in South Korea are concerned about the high economic and social risks associated with such high levels of household debt. Indeed, South Korea has the highest suicide rate among OECD countries (Tan, 2021). Hungary, as a 'post-socialist regime' country (Angel and Heitzmann, 2015), has low household debt levels (Table 1, 44.84%).

Consistent with the framework stylized Environment 4 type countries, such as Australia and Norway, with policies that mitigate household debt (Table 1, Column 1—negative credit index score) and reduce income risk (Table 1, Column 2—SPI score [1]) have medium to high levels of household debt due to higher accessibility (Table 1, Column 3—range from 202% to 240.98%) and low to medium levels of over-indebtedness. Germany is the exception, its conservative policies not only mitigate household debt but also encourage household saving, with the result that the country has relatively low debt levels (102.19%) and low levels of perceived over-indebtedness (13%). Though we argue that a combination of both credit and income risk policies influence debt levels, we also tested the relationship for each and found that the SPI is significantly correlated with household debt levels (Pearson coefficient 0.753,  $p < 0.01$ ), however, the National Credit Index is not.

Finally, Column 6 of Table 1 outlines the type of insolvency system recommended under the Framework (Figure 2). However, contrary to what is proposed in Table 1, there is some divergence between our proposals and current national insolvency system designs in most countries, as is evident from Table 2.

Patterns emerge when comparing the current national insolvency systems in the countries shown in Table 2. First, not all countries have straight debt relief options for households, even when their national over-indebtedness risk is high/medium, for example, Lithuania, South Korea and the Czech Republic. Second, countries that have more developed economies tend to adopt more flexible approaches, and include different paths for households of different categories, for example, the UK, USA, Canada, New Zealand and Australia. Most of the European Union member countries investigated in Table 2 are still following the repayment model, with a repayment plan for most households. Our study suggests greater economic risk in these countries due to reduced household consumption, which results when households are tied into insolvency repayment plans.

## 5. Conclusion

Household debt fuels investment in housing and consumption and contributes to economic growth. However, when household debt starts to accumulate and becomes unsustainable it results in negative social consequences, increases national economic risk and the risk of financial instability, and lengthens the economic recovery period after a recession. The problem is that high household debt levels are related to household over-indebtedness problems, which act as a brake on household productivity and hence economic growth. In addition, households may end up in a poverty trap, facing social and financial exclusion. This situation is not beneficial for the household, the creditor, the financial system or the economy.

There have been calls for a common framework at the European level, however, it is argued that it has not been achieved because of variations in political views (Ramsey, 2017). Consistent with this, our investigation identifies that a European-wide 'one size fits all' approach is not appropriate due to underlying differences in national policies that influence the supply of debt and the risk of over-indebtedness. We propose a conceptual framework, the *Socio-Economic Framework for National Household Insolvency System Design*, to guide policymakers when designing an appropriate national insolvency system that takes into consideration variations in policies influencing credit and income risk (Figure 2).

The literature identified that some features of a national insolvency system should be common to all. First, government policies should not encourage households with high-income risk to become overburdened by debt as their disposable income is precarious when faced with unexpected events. The negative social and economic consequences of over-indebtedness should act to encourage responsible policymaking by governments. Mortgage debt is typically the most prominent type of debt making up household indebtedness, therefore, governments should be mindful not to promote policies that encourage mortgage debt for households with precarious prospects. Social housing options are more appropriate in these circumstances.

Second, policymakers should design national household insolvency systems to resolve household over-indebtedness problems in a timely and cost-efficient manner, so that households become productive. Third, the system should have a facility to support an informal arrangement for the resolution of the conflict between the household and its creditors as a precursor to entry into the system. This should be pursued where affordable debt restructuring is possible, taking into account non-exempt asset disposals and surplus income. It should have a reasonably short timeframe.

Fourth, in all other instances, households should be allowed direct access to the system as ultimately the aim should be to resolve the situation quickly. The system should have two options, the first option deals with honest households that suffer over-indebtedness due to an adverse event and NINA households. These households should be granted immediate relief so they can return to economic productivity in a timely manner (McCormack *et al.*, 2016). Variation in systems between countries is recommended for the second option, which caters to over-indebtedness caused by unnecessary over-consumption or excessive risk-taking. In this instance, the system should regulate the collection and distribution of the household's (non-essential) assets and excess earnings. The cost of insolvency should be allocated between the household and the creditor based on responsibility for the insolvency. The overall aim should be to avoid negative consequences to the household, credit market and economy by ensuring the supply of debt to households for healthy consumption, while at the same time ensuring that sufficient cost is allocated to households, to curb unnecessary over-consumption, and to creditors, to protect households from dysfunctional credit practices.

To reduce moral hazard, that is, households running up debt knowing that they can get it discharged through the insolvency system, households that have already availed of the insolvency system once should not have access to the system for a minimum time period when the cause of their subsequent financial precariousness is over-consumption or a lack of financial literacy. In all instances, households that become involved with the informal arrangement or that seek resolution under the national household insolvency system should be required to undertake financial education (Niemi-Kiesiläinen, 1999).



There are limitations with the framework and its application. The stylized environments identified in Figure 2 are unrealistic as countries are unlikely to have extremes of high and low in respect of policies toward debt and income risk. However, a discussion of the extremes provides an indication of whether the household or creditor is more likely to be responsible for household over-indebtedness and signals how the cost of insolvency could be assigned to reduce moral hazard. The SPI is used to demonstrate the application of the framework in this article. However, further studies are needed to test the use of SPI as a measurement of welfare support. In addition, comparative studies that explore the uses of different measurements would add to this discussion, as well as empirical tests on the application of the framework.

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