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BETTER POLICIES FOR BETTER LIVES

Foreword

To improve consumer policymaking and help prioritise enforcement activities, in October 2019, the OECD Committee on Consumer Policy (CCP) agreed to measure, through an online survey, personal financial and non-financial consumer harm in e-commerce. The survey was developed in 2020 and implemented in February and June 2021 in 13 countries: Australia, Canada, Chile, Germany, Israel, Italy, Japan, Korea, Mexico, Norway, Singapore, Republic of Türkiye (hereafter "Türkiye"), and the United States.

The attached report presents the survey findings. These were developed in consultation with the CCP's advisory group (AG) on measurement by Alan Terry (Vanilla Research) and Jan Tscheke (OECD), with contributions from Nicholas McSpedden-Brown, and under the supervision of Brigitte Acoca. The survey was implemented by Dynata France.

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Note to Delegations:
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Executive Summary

In 2020, the Committee developed an online consumer survey to measure financial consumer harm in e-commerce, which was implemented in February and June 2021[1] in 13 countries: Australia, Canada, Chile, Germany, Israel, Italy, Japan, Korea, Mexico, Norway, Singapore, Türkiye, and the United States.

50% of online consumers faced at least one problem in e-commerce in the year preceding the survey roll-out

The results show that around 50% of the online consumers surveyed encountered at least one problem in e-commerce in the last 12 month. The percentage varied from 23% in Japan to over two thirds in Chile and Mexico, and was higher for younger consumers, men, consumers in economic distress and consumers with higher education.

Consumers' *most serious* reported problems often related to the product itself or delivery issues, but the type of problems encountered varied by type of product and purchase. For example, purchases that were significantly affected by the COVID-19 crisis, e.g. flights or hotel bookings, most often involved problems related to cancellations, whereas subscriptions, e.g. for telecommunication services, often involved payment-related problems or issues with terms and conditions (T&Cs). Scams, counterfeit or fraud were more frequent when the purchase was made via social media or messaging apps, or from a foreign seller.

54% of consumers received insufficient or no redress

Financial consumer harm amounted, on average, to USD 219 (reducing to USD 69 after consumers received a redress from the trader) compared to an average purchase price of USD 225. Redress, including any financial or non-financial (e.g. exchange of product or repair) compensation for the problems encountered, fully covered the financial harm suffered for around 46% of consumers. The remaining 54% of consumers received insufficient or no redress. Relative to the initial (i.e. pre-redress) financial harm, redress was highest in Canada, Japan, Korea and Türkiye, and lowest in Chile, Israel and Norway.

E-commerce problems likely cost OECD consumers over USD 22 billion in 2020

Extrapolating financial consumer harm to the country level shows that in high detriment countries, like Mexico, total financial consumer harm (after redress), accounted for around 3.1% of the total e-commerce market size. At the OECD level, consumers are estimated to have lost a total of USD 22.3 billion in 2020 due to problems in e-commerce, only considering their single most serious problem, after accounting for redress, and not considering the time that many consumers lost when dealing with the problem.

Problems related to COVID-19 accounted for around 34% of total financial harm

The average amount of financial harm was highest for problems associated with T&Cs, scams, payment issues or cancellations, and redress was particularly difficult to obtain for consumers facing multiple problem types (e.g. issues with payment and cancellation). This was often the case for subscriptions or problems related to the COVID-19 pandemic. Purchases involving COVID-19-related problems (e.g. flight cancellations) were also of higher value on average and thus, while only accounting for 25% of problem cases, represented around 34% of total financial harm after accounting for redress.

Around 90% of consumers took some form of action to resolve their problem

Most frequently, consumers: complained to the seller, service provider or delivery company; requested a repair, replacement or a refund; cancelled their purchase within the allowed time; or returned their product. Consumers were more likely to take action when the level of initial financial harm was high. Returning the product or cancelling the purchase most often led to full redress, but both actions were less frequently taken when the purchase involved a foreign seller.

Financial consumer harm varied significantly by socio-economic group

Younger consumers, men, consumers in economic distress and in rural areas faced higher initial financial harm relative to the product price, and were less likely to obtain full redress. They were also more likely than other consumers to make purchases based on price and delivery conditions, rather than on trust in the seller, and overall faced more frequent and more severe problems, such as those associated with price, payment, scams or T&Cs.

Consumers lost on average 5 hours resolving their problem and many were stressed

The survey also considered non-financial forms of harm, suggesting that consumers lost on average 5 hours resolving their problem. The time lost was higher for consumers in Chile and Türkiye (over 7 hours) and lower in Israel and Canada (less than 4 hours). Monetizing this time loss using minimum wage rates suggests that **consumers at the OECD level lost USD 14.9 billion**. Consumers were also negatively impacted emotionally, with around 38% reporting feeling *quite a lot* or *extremely* emotionally stressed by their problem. Importantly, the more time consumers lost and the more stress they suffered, the less likely they were to consider another purchase from the same business – even if they had obtained full redress.

Extended Summary of Key Findings

50% of online consumers faced at least one problem in e-commerce in the year preceding the survey roll-out

The *incidence* of problems[2] varied significantly between countries, from 23% in Japan to over two thirds in Chile and Mexico. Clothing, footwear and sporting goods, the most frequently purchased products, caused problems most often. Other product categories, such as telecommunications or household services, as well as bicycles and cars, stand out because they often caused problems despite being purchased less frequently. There were also significant differences between socio-economic groups, with young consumers, consumers in economic distress, men, and consumers with high education, more likely to have encountered a problem.

Problems were often associated with product delivery (40%) and the products themselves (41%)

Most of the survey focused on the *most serious* problem that consumers encountered. On average, out of eight selectable main categories, the most frequently quoted problems were those associated with the product itself (41%) and with the delivery (40%). Other problem types, such as scams, counterfeit goods or fraud, and problems with contract T&Cs, were less frequently mentioned (each less than 20%). Consumers encountered on average 2-3 different types of problems in the context of their most problematic purchase.

However, the frequency of encountering certain types of problems also varied with the type of product purchased. For example, consumers who faced problems when renting accommodation or purchasing tickets for entertainment events or flights and trains most frequently cited cancellation issues. In the case of telecommunication services, finance products or electricity and gas, consumers mentioned payment issues relatively more often. More generally, consumers mentioned all problem types (but in particular payment issues and problems with T&Cs) more often in the case of subscriptions, implying more complex problems.

Consumers' experiences reflect the dramatic changes in e-commerce resulting from the COVID-19 pandemic

Around one in four consumers indicated that their most serious problem was directly related to the COVID-19 pandemic. For those consumers, problems tended to be multi-facetted and often related to cancellation issues or scams. The proportion of consumers feeling the problem was a direct result of COVID-19 was highest for flights, train and car retail (60%), entertainment tickets (57%), accommodation services (55%) and medicine (37%).

The COVID-19 pandemic not only had an impact on the problems faced by consumers, but also more generally on the types of products purchased by consumers. In particular, the most frequently purchased product categories were clothing, footwear and sporting goods; food, drinks and groceries; and personal care products. These were product types that more than 60% of purchasers had purchased at least once *due to* the COVID-19 pandemic, for instance because they had to stay indoors. This percentage is higher than for all other product categories apart from medicine (also 60%), reflecting the likely impetus of the

pandemic on the overall purchase patterns observed. Chile, Mexico and Türkiye had the highest proportion of consumers making purchases *due to* COVID-19 across product categories, contrasting with their relatively low pre-pandemic e-commerce participation rates.

The incidence of problems with foreign sellers varied across countries, but often involved scams

On average, around 23% of consumers associated their most serious problem with foreign sellers. This percentage was significantly higher for Canada, Israel, Norway and Singapore (over 30%) and significantly lower for Korea and Türkiye (less than 10%). This reflects, at least to some extent, the economic size of the countries (e.g. for Singapore) as well as the overall share of consumers making purchases from abroad (e.g. 35% for Norway and 1% for Türkiye).[3] When the purchase involved foreign sellers, problems were significantly more frequently linked to scams (26% vs. 16%), and, to a lesser degree, cancellations or returns (31% vs. 26%), post sales (28% vs. 23%) and T&Cs (21% vs. 17%).

The amount of financial harm varied significantly among consumers

Consumers paid on average around USD 225 (median: USD 59) for their most problematic purchase, resulting in a financial pre-redress harm (or *pre-redress detriment*), of USD 219. Such harm was due to:

- consumers' inability to fully use the purchased product (USD 154),
- hidden or additional fees (USD 26), and
- extra costs, e.g. to hire a lawyer (USD 39).

These averages hide significant variations. For example,

- While around 12% of consumers faced no financial harm at all, for another 36% the amount of financial *pre-redress detriment* surpassed the product value.
- After redress (monetary or in-kind), financial harm (or *post-redress detriment*) was zero (or even negative if they were overcompensated) for around 46% of consumers, including those who suffered no financial harm in the first place. However, the remaining 54% still suffered non-zero *post-redress detriment* and half of them had not received any redress at all.

Average *post-redress detriment*, across consumers, amounted to USD 69. For the *median* consumer it was USD 6. The median amount of *post-redress detriment* was significantly higher when the purchase involved a foreign seller (USD 11, compared to 5 USD for domestic sellers).

The overall amount of financial consumer harm varies significantly between countries and likely cost OECD consumers over USD 22 billion in 2020

In line with the average purchase value, *pre-redress detriment* was significantly higher in Türkiye and the United States (over USD 300) than in Canada, Japan or Korea (less than 150). Relative to the price, *pre-redress detriment* was highest in Türkiye and the United States, but also in Australia and Mexico; it was lowest in Canada, Israel, Singapore and Korea. *Redress sufficiency*, defined as the ratio of redress over *pre-redress detriment*, was highest in Canada, Japan, Korea and Türkiye and lowest in Chile, Israel and Norway.

Extrapolating to the country level, financial harm related to consumers' *most serious* problem is estimated to have accounted for around 0.22% (pre-redress) and 0.07% (post-redress) of total 2020 household expenditure, based on the median survey country. In the United States, the largest economy in the sample, the total amount of financial harm is estimated to have reached around USD 28.9 billion (pre-redress) and USD 9.6 billion (post-redress), representing 3.8% and 1.3%, respectively, of total 2020 US retail and food e-commerce sales. In Mexico, one of the countries with the highest levels of harm, financial detriment is estimated to have accounted for around 7.5% (pre-redress) and 3.1% (post-redress) of total annual e-commerce sales. Extrapolated to the OECD level, the survey results suggest that OECD consumers in 2020 suffered total financial *post-redress detriment* of around USD 22.3 billion - only accounting for their single most serious problem (*pre-redress detriment*: USD 68.2 billion).

The amount of financial consumer harm varies significantly by product category or problem type

Relative to the price paid, pre-redress detriment was highest when consumers faced problems related to terms and conditions (T&Cs) or scams, but also payment issues or cancellations. Problems with delivery or related to the product itself, while significantly more frequent, were less detrimental on average. Considering the amount of redress obtained *relative* to the initial amount of *pre-redress detriment* (i.e. *redress sufficiency*), problems with the product itself were also the easiest to resolve. In contrast, redress was often not sufficient to fully compensate for the harm suffered when problems related to post-sales, the price and/or scams.

Consumers whose problems were multidimensional (e.g. in the case of subscriptions or when consumers attributed their problems to the COVID-19 crisis) had more difficulties obtaining redress. The share of consumers obtaining *full redress* was particularly low for purchases of electricity and gas; entertainment events; flight, train tickets or car rental; household services; medicine[4]; and telecommunication services. Purchases involving COVID-19 related problems (e.g. flight cancellations) were also of higher value on average. Accordingly, despite only accounting for 25% of cases, COVID-19 related problems accounted for around 34% of total *post-redress detriment*.

Redress was further more difficult to obtain from foreign sellers, specialised retailers operating both online and offline (e.g. airlines), and for purchases via social media or messaging apps. For purchases from foreign sellers and purchases via social media, this was in line with a relatively high share of spam or fraud cases, which were overall more difficult to resolve.

About 90% of consumers took some action to resolve their problem with the trader, but few made a complaint to the government or took legal action

Around 90% of consumers encountering problems took some form of action to resolve them. The percentage of consumers that did *not* take any action was highest in Japan (15%), where consumers were also less likely to make a complaint to the government (3% compared to a sample average of 7%). Consumers were more likely to take action (including complaining to the government or taking legal actions), when the level of financial harm (*pre-redress detriment*) was high. Most frequently, consumers made a complaint to the seller, provider or delivery company (37%), asked the seller for repair, replacement or refund (25%), cancelled the purchase within the allowed time (23%) and/or returned the product (22%). Redress success was highest when consumers were able to

return the product or cancel the purchase, which less frequently occurred when the purchase involved foreign sellers.

Redress, relative to *pre-redress detriment*, was lowest when consumers purchased a replacement product, left a review, or made a complaint to the government. Consumers complaining to the government typically had more severe (e.g. scams, problems with T&Cs) and complex (i.e. multidimensional) problems that took longer to resolve. Importantly, to the extent that their problem was at least partially resolved, consumers that had complained to the government were not less satisfied with the outcome of the resolution on average. In contrast, consumers leaving a review tended to be less satisfied with the resolution outcome on average, suggesting that reviews may often be used to express unsatisfactory redress experiences.

Financial consumer harm varied significantly by socio-economic group

Considering their most serious problem, younger consumers, men, consumers in economic distress and those in rural areas faced higher *pre-redress detriment* (relative to the price paid) than other consumers. They were also significantly more likely to agree that they would generally choose sellers based on price and delivery conditions, rather than trust, an attitude that was associated with higher *pre-redress detriment* on average. Furthermore, they encountered problems with the price, payment issues, scams or problems with T&Cs more frequently, i.e. problem types that were typically associated with higher *pre-redress detriment* and lower redress. Men and consumers in economic distress were also less likely to read all available information (e.g. reviews) prior to a purchase, which was also associated with lower redress success on average.[5] In line with this, all of the aforementioned consumer groups were less likely to obtain *full redress*.

Differences are less pronounced with regard to actions taken, though it is noteworthy that consumers from all of the highlighted groups were more likely to purchase replacement products, bring a complaint to a government body or take legal action, i.e. typically actions associated with lower redress.

Consumers lost on average 5 hours resolving their problem and more than a third reported suffering significant emotional stress

Consumers lost on average 5 hours resolving their problem (median: 1-2 hours) and even more for expensive products, such as plane, train tickets or car rental, but also telecommunication services (7 hours on average). Consumers in Chile and Türkiye lost significantly more time resolving their problems (over 7 hours) than consumers in Israel and Canada (less than 4 hours).

Using minimum wages to obtain a conservative measure for the monetary value of time loss and extrapolating to the OECD level would suggest that adding the financial costs of time loss increased total financial *post-redress detriment* suffered by OECD consumers in 2020 by about 67%, from USD 22.3 billion to USD 37.2 billion.

A significant share of consumers furthermore felt *quite a lot* or *extremely* emotionally stressed (25% and 13%, respectively) by the problem encountered. As with time lost, the level of stress was higher for more expensive products. Consumers in economic distress lost more time resolving a problem and experienced higher levels of stress on average. Younger consumers also lost more time on average. The more time consumers lost resolving a problem, and the more stressed they were, the less likely they were to consider another purchase from the seller or provider. Importantly, the size of these effects was significant even for consumers obtaining full redress.

1. Introduction

1.1. Background

The e-commerce landscape has been constantly changing since 1998, when the OECD and the Government of Canada jointly organised a Ministerial Conference on Electronic Commerce in Ottawa, recognising that e-commerce offers a radically new way of conducting commercial transactions and may become a global driver of growth and economic development. In recent years, new technologies and business models have significantly transformed e-commerce and expanded its scale and scope (OECD, 2019[1]). In 2021, more than two thirds of consumers (67%) in OECD countries had realised at least one online purchase within the last 12 month, three times as many as in 2005 (22%).[6] The OECD Committee on Consumer Policy (CCP) has been closely following these changes and, as early as 1999, developed first policy guidance to help ensure that consumers are no less protected when shopping online than they are when buying from their local store. The guidelines were updated in the 2016 OECD Recommendation on Consumer Protection in E-commerce to address new and emerging trends and challenges faced by consumers in the dynamic e-commerce marketplace (OECD, 2016[2]).

At the same time, the CCP has been working on improving the evidence base for consumer policy making to ensure that it is based on the best available data concerning the likely costs and benefits of policy actions (e.g. (OECD, 2010[3])). To improve consumer policymaking and help prioritise enforcement activities, in October 2019, the CCP agreed to measure, through an online survey, personal financial and non-financial consumer detriment in e-commerce. According to the OECD Recommendation on Consumer Policy Decision Making (OECD, 2014[4]) "consumer detriment" is the harm or loss that consumers experience, when, for example, the goods and services they purchased through e-commerce do not conform to their (reasonable) expectations with respect to quality, performance or delivery conditions; when they suffer from unfair contract terms; or when they have to pay more for a product than what they could have reasonably expected (e.g. due to hidden or extra costs). While there are many forms of detriment, including structural or hidden detriment, the CCP agreed that the survey focus only on personal detriment, financial and non-financial, that has become apparent to the consumer by the time they responded to the survey.

The survey methodology was developed over the course of 2020, building on previous surveys, including a European Commission survey (EC, 2017[5]), and the CCP's survey on consumer trust in peer platform markets (OECD, 2017[6])). The survey company Dynata implemented the survey in February and June 2021, first in two pilot countries, Canada and Korea, and then in 11 additional, geographically diverse, countries: Australia, Chile, Germany, Israel, Italy, Japan, Mexico, Norway, Singapore, Türkiye and the United States.

1.2. Timing of the survey

It is important to recognize from the outset that at the time the survey was implemented, the e-commerce landscape was affected by dramatic and unforeseen changes. In particular, from 2020 onwards, the COVID-19 pandemic significantly accelerated the expansion of e-commerce towards new firms, customers and types of products (OECD, 2020[7]). In 2021 many of the participating countries were still experiencing some forms of 'lock-down' measures, resulting, for example, in the temporary closing of traditional brick-and-mortar shops. During this time, e-commerce enabled many consumers to retain access to a large variety of products from the convenience and safety of their homes, while also allowing businesses to continue operation in spite of store closures and other confinement measures.

As a consequence, many countries saw an increase in the participation of new consumer groups (e.g. older consumers) and a shift of transactions from luxury goods (e.g. consumer electronics) and services towards everyday necessities, such as groceries or medicine (OECD, 2020[7]). Similarly, the type of problems consumers were facing changed, including a higher number of sudden cancellations (e.g. flights, hotel bookings and accommodation rentals), new types of scams and fraud or supply chain disruptions that led to significant delays in delivery ((OECD, 2020[8]) (OECD, 2020[9])).

Despite these sudden and significant changes, the CCP agreed to implement the survey, acknowledging that there may be no return to 'normal' in the foreseeable future. As of today, it still unclear to what extent the observed changes in the scale and scope of e-commerce, but also regarding the type of problems encountered by consumers, will be persistent or merely transitional. Recent evidence regarding the scale of e-commerce seems to suggest a return to the pre-crisis trend in many sectors (Alcedo et al., 2022[10]). This is in particular the case in countries or sectors (such as utilities or recreation) where e-commerce was already well developed before the crisis. In other areas, and in particular where the scope of e-commerce increased and learning has taken place (e.g. new types of sellers, such as restaurants or grocery stores, or new consumer groups, such as the elderly, entering the e-commerce market) changes are likely to be more persistent.

The persistence of changes in the types of problems faced by consumers is even more difficult to assess, given the lack of regularly updated data for many countries. This also applies to the present survey, which only provides a snapshot of e-commerce (and the problems faced by consumers) at a particular point in time, namely the first half of 2021. An attempt has nevertheless been made to disentangle the impact of COVID-19 on the results (e.g. Section 4). The results may at least provide some indications as to how findings might have been different under more 'normal' circumstances. Future research, including a possible repetition of this or similar surveys, may shed more light on this question.

1.3. Scope of the online survey

Consistent with the OECD's Recommendation on Consumer Protection in E-commerce (OECD, 2016[2]), it was agreed that the survey would cover business-to-consumer e-commerce, including transactions via online marketplaces, as well as purchases from private persons via website or app (e.g. eBay, Uber). It further covers commercial practices related to both monetary and nonmonetary transactions for both goods and services.

More specifically, it was agreed that the survey itself should cover a broad range of goods and services available for purchase online. Table 1.1 below presents the 18 product categories that were considered in the survey in abbreviated form. More detailed descriptions were provided in the final version of the survey (see page 120):

Table 1.1. List of goods and services presented to consumers

Accommodation rental and hotels	Bicycles, cars, etc.	Clothing, footwear, sporting goods	Computers, electronics, appliances	Digital media
Electricity, gas, etc.	Entertainment events	Finance products	Flights, train, car rental, etc.	Food, beverages, groceries
Furniture, home, gardening	Household services	Medicine	Personal care	Printed books, magazines etc., CDs, DVDs, etc.
Rideshare services	Telecommunication services	Other		

It was further agreed that the survey would:

- focus on detriment consumers are aware of and associate with a particular purchase, given the difficulty of measuring other forms of (e.g. hidden or structural) detriment
- aim to identify both quantitative and qualitative aspects of consumer detriment, as well as better understand consumers' experience with problems in e-commerce more generally
- shed light on a number of relevant policy dimensions, including the type of consumer facing a problem (e.g. socio-economic characteristics), the type of products involved, the type of problems involved or the process of problem resolution

In terms of the problems considered, the survey took a broad approach, including issues such as unfair commercial practices (e.g. hidden costs and fees), payment problems, belated delivery or problems with the guarantee/warranty of a product (see p. 121 in the Annex for a full overview of the problem categories covered).

1.4. Methodology

The OECD selected participating countries based on geographic and economic diversity criteria, with a mix of advanced and emerging economies. Dynata used its established panels in each country, with the exception of Israel, where a sub-contractor's panel was used (see Annex B for details on the panels used).

The target for each country was 1 000 online consumers, i.e. Internet users that have made at least one online purchase and who had encountered at least one e-commerce problem in the last 12 months. This target was chosen to ensure that conclusions about consumers who experienced a problem were sufficiently robust, even at more granular levels such as for a specific age group, gender, or income range. 'Experienced a problem' was defined as a respondent answering 'yes' to the following question:

> *Q Please look through the list below and indicate all goods or services purchased **online** where you experienced a problem within the last 12 months, either with the goods or services or the seller/provider. It doesn't matter whether or not you complained about the problem, but it must be something for which you think you had a legitimate cause for complaint.*

If consumers had experienced problems with more than one purchase within the last 12 months, they were asked to answer the main survey in reference to 'the most serious problem' they had experienced. This is in line with the methodology of the above mentioned 2017 EU study (EC, 2017[5]) and ensures that the survey does not only pick up the most frequent problems (e.g. late delivery), but also some less frequent problems (e.g. scams), to the extent that they result in high consumer detriment.

The first step in each country was to field the survey among a representative sample of online consumers and screen them to find out who had experienced problems from an online transaction, and was therefore eligible for the main survey. Thus everyone answered initial screening and some short demographic questions (such as age, gender, income etc.). Those who had not experienced a problem then exited the survey.

Given the fixed target of consumers who had experienced online detriment per country (1 000), and the fact that the percentage of consumers that have faced at least one problem in e-commerce varied across countries (the report refers to this percentage as the *incidence* of problems for simplicity; however, this *incidence* does not provide any information regarding frequency of problems per consumer or the total number of problematic transactions in a given country), varying numbers of online consumers had to be surveyed in each country to meet that target. For example, where incidence of problems levels were around 50%, only around 2 000 online consumers had to be surveyed to achieve 1 000 consumers who had experienced problems, but where it was 20%, as many as 5 000 online consumers had to be surveyed to reach the target of 1 000 (or more) consumers who had experienced problems.

The full final data i.e. all online consumers, not just those experiencing problems, were weighted to match the profile of the relevant 18+ online population by age and gender, and, where possible, by educational attainment or household income. The smaller sample of consumers that experienced problems then randomly fell out of the representative sample. Details are included in the Annexes.

As mentioned, the questionnaire was piloted in Canada and Korea to identify possible problems with the survey, before launching it in the remaining 11 countries. The main issue that was highlighted in the pilot study was a relatively high number of respondents feeling unable to recall:

- How much they had spent on the good or service in question. A relatively high level of 'don't knows' at this question - 14% in Canada, 30% in Korea - reduced the pool of data available for subsequent calculation of consumer detriment levels, as the calculation is partly contingent on the price paid by the consumer (see below Section 5 for details).
- How much they had been charged in hidden fees or charges (if any), and
- How much they had incurred in costs trying to resolve the problem (if any) or how much they had been compensated or reimbursed (if at all).

In response, the relevant questions were amended to prompt respondents who initially answered 'don't know' to provide a 'reasonable estimate' if possible.

The figures below represent the sample sizes for the main survey i.e. consumers who have experienced at least one problem from an online purchase in the last 12 months.

Table 1.2. Unweighted sample sizes by country

Country	Unweighted sample size	Country	Unweighted sample size	Country	Unweighted sample size
Australia	978	Canada	954	Chile	989
Germany	946	Israel	1 004	Italy	987
Japan	995	Korea	983	Mexico	1 002
Norway	949	Singapore	967	Türkiye	970
USA	969				

The final sample sizes fell short of the intended 1 000 in most countries, as in each case a number of 'outlier' respondents were deleted when their numerical responses were regarded implausible (e.g. if consumers faced high post-redress detriment but declared being completely satisfied with the problem resolution). Details are provided in the Annexes and outliers are not considered in any of the following results. A brief overview of the key survey limitations is provided in Box 1.1.

Box 1.1. Summary of key methodological limitations

The exceptional impact of COVID

Surveys such as this can usually only provide a snapshot in time, and reflect the situation at that moment. This survey was carried out in the middle of the COVID pandemic, and whilst different countries were at different stages of managing the outbreak, almost all consumers' behaviours and attitudes would have been affected by it in some way. Despite attempts to isolate the impact of COVID, results are likely to reflect these particular circumstances.

The nature of online panels and the available sample profile data

The survey was carried out using online panels. By their nature, online panels are to some extent self-selecting, with respondents opting into them. As a result, they are not purely random, which may introduce a certain degree of sample bias. Where available/feasible, data from the national statistical offices (NSOs) was used to ensure the representativeness of samples along socio-economic dimensions, such as age, gender, income, educational attainment. However, representative quotas were sometimes i) not available for all countries, or ii) unfeasible to implement given the characteristics of the available online panels (see Annex B for details).

Respondent recall

The survey asks respondents about purchases up to 12 months ago, and in the case of problems with warranties, potentially longer. Few respondents would have perfect recall across that time period, and in fact around 20% of respondents were unable to recall a specific value for the price they paid for the purchase in question. These respondents reduced the available sample size for the questions used to underpin the detriment calculations (to around 800 consumers per country).

Focus on the single most serious problem

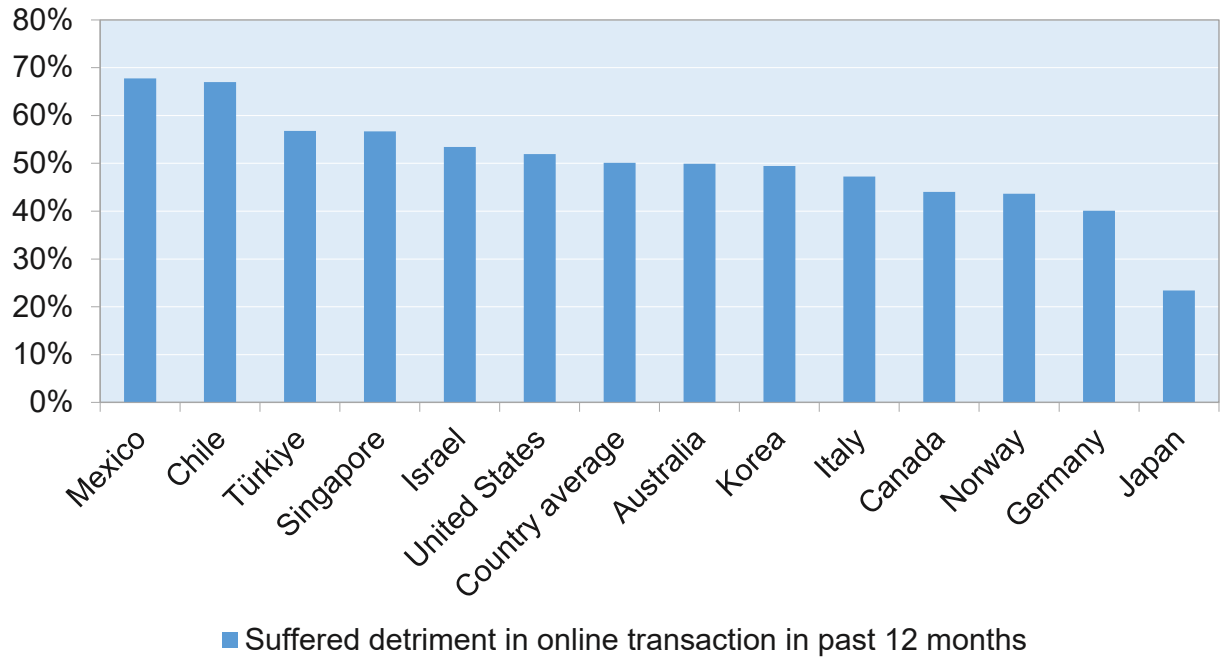
Most of the survey questions relate to the single *most serious problem* consumers have faced, which ensures that the survey can also pick up some potentially rare but highly detrimental problems (e.g. cancelled flights or scams), which may be important from a policy perspective. However, a downside to this approach is that the survey has relatively little informative value as to the overall *frequency* of problematic transactions.

2. Incidence of detriment

2.1. A significant share of consumers encountered problems in e-commerce

Between 40 and 55% of online consumers in most of the surveyed countries encountered at least one problem in e-commerce in the last 12 month. This proportion was even higher in Chile (67%) and Mexico (68%), but lower in Japan (23%) (see Figure 2.1).

Figure 2.1. Incidence of consumer problems in e-commerce by country



Note: Q5+Q6: based on all consumers purchasing online in last 12 months (27 124). The country average (50%) in this figure is the simple average across the 13 individual country averages. The simple average across all observations, which is mostly referred in other parts of the report, is 47%. The difference in methodology is proposed due to the large number of consumers that *haven't* faced a problem in Japan, which significantly pulls down the sample mean defined across individual observations. Note that this only affects the data for incidence but not the other measures of detriment.

The survey data does not suggest that *the frequency of purchases* in Chile and Mexico is significantly higher than elsewhere, or that the frequency of purchases in Japan is substantially lower.[7] The underlying finding would therefore seem to be that consumers in these countries tended to encounter problems relatively more (or less) frequently than elsewhere.

2.2. Incidence of detriment – by socio-economic characteristics

As shown in Table 2.1, while the incidence of detriment does not seem to vary much by gender and household income, and only slightly for educational attainment, and consumers' ability to make ends meet, there is significant variation by age group. In particular, young respondents were significantly more likely to have encountered at least one problem in e-commerce in the last 12 months than older respondents. The findings further suggest that consumers that have difficulties to make ends meet are slightly more likely to experience detriment, as are consumers with higher education.

Table 2.1. Incidence of consumer detriment in e-commerce by socio-economic characteristics

	Age			Household income[8]			Educational attainment[9]		
	18-29 yrs.	30-64 yrs.	65+ yrs.	Low	Med	High	Low	Med	High
Experienced problems (%)	61	47	26	48	46	49	43	44	50

	Ability to make ends meet[10]				Gender	
	With great/ difficulty	With some difficulty	Fairly easily	Very/ easily	Male	Female
Experienced problems (%)	53	47	48	44	48	46

Note: Q5+Q6: based on all consumers purchasing online in last 12 months (27 124)

A linear regression which controls for purchase behaviour at the individual level (e.g. number of different products purchased and whether the last purchase was more than three month ago) and country specific average effects broadly confirms these findings (see Box 2.1 and Annex F). In particular, it suggests that the incidence of e-commerce problems is (statistically) significantly higher for younger individuals, men, individuals that have difficulties to make ends meet, and consumers with higher levels of education. Employment status and whether an individual was living in a rural area had no statistically significant effects on the share of consumers that had encountered at least one problem.

Because consumers that have not encountered a problem were only asked a small selection of survey questions, the scope for a more fine-grained analysis of the possible drivers of socio-economic differences in the incidence rate is limited. The regression analysis only confirms that the available information about the i) timing of the last purchase (Q1), and ii) the number of different product types purchased (based on Q2), is not sufficient to explain the observed differences, despite both of these factors being important determinants of the incidence rate.

Box 2.1. The Incidence rate: results from a regression analysis

Why a regression analysis?

While the results in Table 2.1. capture actual socio-demographic differences, they could, in principle, be artefacts of the sample composition. To see this, consider that demographic differences suggest a significantly higher percentage of young consumers in Mexico than in Japan. Consider furthermore that the findings from Figure 2.1 suggest a significantly higher problem incidence for Mexico than for Japan. In a comparison of incidence rates by age groups (across countries, as in Table 2.1.), these difference alone would (across countries) suggest a higher incidence rate for younger consumers - even if the incidence rate were in fact identical across different age groups within each of the surveyed countries. The reason is that a relatively large share of young consumers just happens to live in countries with relatively high incidence rates. A regression analysis, as provided in Appendix E for the incidence rate and other key measures of detriment, can control for such *spurious* effects. In particular, it allows to compare the incidence of problems (and other measures of detriment) between different socio-economic groups of consumers *after* accounting for any potentially relevant (observable and unobservable) differences in country characteristics (e.g. culture, demographics or regulatory systems).

Results for the incidence rate

The regression analysis confirms the robustness and statistical significance of the results presented in Table 2.1. For simplicity, only two specific age groups are shown but the direction of effects applies across the full age distribution (e.g. at age 70 the predicted incidence is 30.1%). The regression uses 'the ability to make ends meet' as the only indicator for economic distress (see Appendix E for an explanation), which, however, partly also captures income differences. The regression also provide results for the unemployed, but the results are not discussed in detail because the comparison group (e.g. employed, students, home duties or retired) is too heterogeneous to draw meaningful conclusions. All results are summarised in Table 2.2.

Table 2.2. Robustness: Implied incidence by socio-economic characteristics

Average		46.6%	
Age 25	60.0%	Age 50	42.8%
Men	49.4%	Women	43.7%
Economic distress	54.2%	No economic distress	45.3%
Not unemployed	46.8%	Unemployed	43.4%
High Education	46.9%	Low Education	43.1%
Rural	(46.6%)	Non-rural	(46.6%)

Note: Based on column 6 of table A.F.2, which accounts for idiosyncratic country differences and varying purchase patterns (timing of last purchase, number of different product types purchased). Differences in parenthesis are not statistically significant. Consumers in economic distress are those that face great or some difficulty in the ability to make ends need.
Source: OECD calculations.

The regression results also show that the probability of consumers having encountered at least one problem in e-commerce in the last 12 months is increasing in the number of different product types purchased in the last 12 months, but lower for individuals whose last e-commerce purchase was less than 3 months ago.

Regarding age for example, data on the timing of the last purchase (Q1) suggests that young consumers (18-29 years), if anything, were slightly *less* likely to have realised their last online purchase within the last month (75% compared to 79% for consumers age 30+), which would be in line with *less* frequent e-commerce purchases. However, older consumer (65+) purchased a smaller variety of products on average (based on Q2), which may partly explain the lower incidence.

In this context, it is also noteworthy that while Internet usage and e-commerce participation are typically lower among older individuals, this alone cannot explain the observed differences as the sample only considers *online* consumers, i.e. Internet users that have made at least one online purchase in the last 12 months. Information about other possibly relevant consumer differences that may help to explain observed differences in the incidence rate, such as consumers' attitudes towards risks or the average number of purchases realised in the past 3 months, are unfortunately only available for consumers that *have* faced a problem and hence cannot be relied upon when discussing the incidence rate.[11] However, their role as possible determinants of socio-economic differences will be discussed in more detail below for the *magnitude* of detriment and, to the extent that the incidence of problems and the magnitude of detriment are related, their possible role in explaining socio-economic differences could also apply for the incidence rate.

2.3. Incidence of detriment - by product category

The survey covered purchases in 18 product categories (see Table 1.1 and p. 120 of the Annex). Table 2.3 below illustrates the percentage of consumers in the sample who had purchased each product category within the last 12 months, and the percentage who had experienced problems with the purchase of such product in the last 12 months.[12] The probability of experiencing problems at least once in the last 12 months (*incidence*) in a particular category is directly related to the percentage of consumers who have purchased that product category at all in the last 12 months. For example, **consumers have most commonly experienced problems with a purchase of clothing, footwear and sporting goods**, which is the product category they had purchased the most. Similarly, while relatively few consumers have experienced problems with household services, relatively few have purchased this category online.

The last column presents the percentage of consumers who had experienced problems relative to the percentage of consumers who had purchased the product online in the last 12 months. This gives an understanding of the relative incidence of a problem after accounting for the fact that some product categories are purchased by more consumers over a given year than others. However, it is important not to read too much into the last column, which does not account for possible differences in the frequency of purchases *within* the year – for example, food, beverages and groceries is a product category that is often purchased repeatedly, and so those having made purchases from that category are likely to have made several purchases from that category within a given year. It can be expected that this would lead to a higher incidence of problems for this particular product category.

This caveat notwithstanding, a number of points are worth noting:

- Neither accommodation nor flights emerge as particularly problematic categories, despite the number of cancellations resulting from the pandemic. While the 'Purchased' column measures the incidence of purchases over the last 12 months, the 'Experienced a problem' column includes detriment that may have arisen from goods or services purchased more than 12 months ago (but was experienced within the last 12 months), something which itself is likely to have inflated the final column figure in this case compared to other purchases which are less likely to have

been planned as far in advance as accommodation or flights. Despite this, the final figures (19% and 24%) do not seem particularly high.

- The figures in the final column are **relatively high for telecommunication services, household services and bicycles, cars, etc.**, given they are relatively infrequent purchases compared to, for instance, rideshare services or food, beverages and groceries.
- Encouragingly, given the particular nature of the pandemic, medicines do not seem to be an especially problematic category.

However, the value of detriment caused when things do go wrong is also to be borne in mind – e.g. problems with expensive flights tend to result in higher value detriment than problems with inexpensive rideshares – an issue explored in more detail in Table 5.7.

Table 2.3. Incidence of problematic transactions by product category

	Purchased %*	Experienced problems %**	'Experienced problems' as % of 'purchased'***
Clothing, footwear, sporting goods	61	18	29
Food, beverages, groceries	51	13	26
Personal care	46	9	19
Digital media	38	7	17
Computers, electronics, appliances	38	10	25
Furniture, home, gardening	33	8	24
Medicine	30	5	16
Printed media, CDs	29	5	17
Telecommunication services	24	7	29
Finance products	22	4	19
Accommodation rental incl. hotels	18	3	19
Electricity, gas, etc.	18	4	24
Entertainment events	17	4	21
Household services	14	4	30
Rideshare services	13	4	28
Flights, train, car rental etc.	12	3	24
Bicycles, cars etc.	9	3	32
Other goods or services	4	2	41

Note: Qs 2, 5, 6: based on all consumers purchasing online in last 12 months (27 124). * Purchased product category online in last 12 months. ** Experienced problems from an online purchase in that product category in last 12 months. *** The proportion of consumers who experienced problems from an online purchase in that product category, as a proportion of those who purchased that product category. Note that percentages are not restricted to the [0-100%] interval. In particular, while consumers were restricted to report purchases from the last 12 month, they were allowed to report problems related to purchases made more than 12 month ago as long as the problem occurred within the last 12 months. This structural choice was made to better account for problems that occur after more than 12 months, e.g. because a household appliance starts leaking after 3 years of use. Accordingly, the last column is likely to be an upper bound approximation of the actual product specific incidence rates, in particular for products that are used over longer periods of time. The table does further not account for possible differences in the *frequency* of purchases within the year, which likely affects the percentage of consumers that have encountered a problem.

3. Nature of problems encountered with the most problematic purchase

Note: The previous analysis focused on all online consumers, who were asked to provide information on all the problems faced within the 12 months preceding the survey roll-out. Focus in the following discussion is limited to those consumers who experienced at least one problem with an online purchase in the last 12 months and details regarding the problematic transaction were only collected with regard to the purchased that caused the most serious problems.

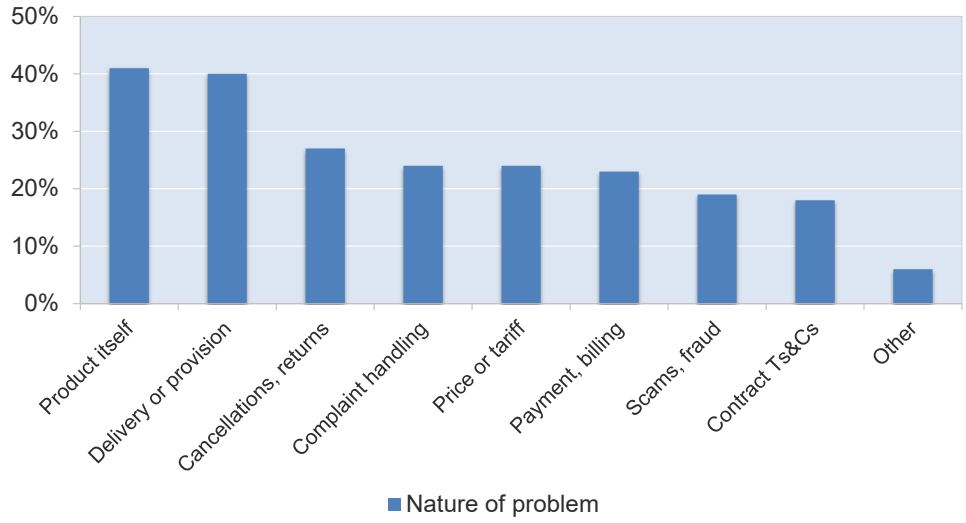
3.1. The most frequently mentioned problems are problems with delivery or the product itself

The type of problems that consumers reported experiencing in the context of their most problematic purchase are widespread and varied. Importantly, many consumers reported **numerous issues with the same purchase** - on average, consumers cited between 2-3 different problem types in relation to their most problematic purchase.

Figure 3.1 shows that **consumers most frequently related the problems they faced to the product itself (41%) and to delivery issues (40%).** Consumers associated the problems they faced less frequently with scams, counterfeit goods or fraud, and problems with contract T&Cs, though even these were still cited by close to one in five consumers.[13]

Interestingly, scams, counterfeit goods or fraud were mentioned by a notably higher percentage (27%) among those that made the purchase via a social media or messaging app (not shown). Consumers that encountered scams, counterfeit goods or fraud, when purchasing via social media or messaging app, most frequently had purchased clothing, footwear etc. (25%), furniture, home accessories etc. (12%) and downloads or streaming services (10%). These product types were less frequently involved when the scam involved other seller types (21%, 7% and 6%, respectively). While the collected data is too limited to provide more insights in this regard, it could be that some of these scams arise in the context of (non-marketplace mediated) peer-to-peer purchases of used goods (e.g. clothing or furniture) or, for digital media, in the context of in-app purchases.

Figure 3.1. Nature of problems arising for the most problematic purchase



Note: Q9: based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

Table 3.1 provides a more-fine grained overview of the problems consumers faced.

Table 3.1. Nature of problems arising for the most problematic purchase - details

Nature of problem:	%		%
Problems with goods or services received	**41**	**Problems with delivery or provision of goods or services**	**40**
Good or service faulty or not working	18	Delivered/provided significantly later than indicated	18
Good or service not as described (e.g. wrong colour)	13	Delivered partially or not at all (e.g. cancelled flight)	15
Good or service caused damage	7	Provision of service stopped unexpectedly	6
Problems with cancelling order or product returns	**27**	**Problems with complaint handling, compensation, warranty or guarantee**	**24**
Could not make use of my right to return good/cancel the contract	10	Problems with after-sales service or complaint handling	14
Other problems cancelling my order/contract	8	Warranty or guarantee not honoured/not honoured fully	8
It was difficult to return products (e.g. high cost)	7	Compensation inadequate or not offered at all	6
Problems with price or tariff (including cost of delivery)	**24**	**Problems with payments, invoicing or billing**	**23**
Charged higher price than others for same good/service	10	Invoice, receipt or bill unclear	8
Price increased unexpectedly	9	Invoice, receipt or bill could not be accessed or not received	7
Unclear or complex pricing/tariffs	5	Invoice, receipt or bill incorrect	5
Problems with scams, counterfeit goods or fraud	**19**	**Problems with contract Terms and Conditions**	**18**
Good/service intentionally never delivered	8	T&Cs difficult to find or understand	7
My payment details or personal data were misused or stolen	7	Misleading or unfair contractual T&Cs	7
I received counterfeit or fake goods or services	5	Missing or incomplete information in the contract	4

Note: Q9: based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced. Only the top three items in each category are presented. Respondents could choose as many individual problems as they felt appropriate.

3.2. Nature of problems - by country

Interesting differences are apparent when considering the data by country. The table below shows how often, in absolute terms, consumers cited each problem type in a given country. However, because consumers in some countries (e.g. the United States) were more likely to cite each of the possible problems, which could partly reflect cultural difference, the following summary of key findings takes into account how frequently a problem was mentioned in a given country *relative* to other problem types. For example, the table shows that, in absolute terms, delivery issues were most frequently mentioned in the US, including more frequently than in Canada (48% vs. 44%). However, because consumers in the US cited *all* problem types significantly more frequently than in Canada (40% compared to 22%), *relative* to other problem types delivery problems were more frequent in Canada (44% compared to an average of 22%) than in the US (48% compared to an average of 40%). Accordingly, the following list of results highlights how prominent different problem types were within a given country.[14] Specifically:

- product issues are relatively more prominent in Japan, Israel, Singapore and Korea

- delivery issues are relatively more prominent in Canada, Chile, and Israel
- cancellation issues are more prominent in Türkiye and, to a lesser degree, Chile, Korea and Italy
- issues with complaint handling, compensation, warranty or guarantee feature more strongly in Israel and Germany
- price issues[15] are relatively more frequent in Mexico, Korea and Türkiye
- payment issues are relatively higher in Mexico, Australia, Chile and the United States
- fraud concerns are most prominent in the United States, Norway, and Türkiye
- issues with T&Cs feature most in the United States, Norway and Germany.

Table 3.2. Nature of consumer problems by country

	Product %	Delivery %	Cancellation %	Complaints %	Price %	Payment %	Fraud %	T&Cs %	Avg. %
Australia	47	40	27	27	24	28	22	21	**30**
Canada	35	44	20	16	21	16	12	11	**22**
Chile	25	43	23	21	19	20	12	9	**22**
Germany	40	40	26	29	24	24	20	21	**28**
Israel	43	44	23	25	12	11	9	9	**22**
Italy	38	38	27	23	22	20	17	18	**25**
Japan	52	30	23	17	17	15	16	16	**23**
Korea	45	38	28	20	29	19	15	16	**26**
Mexico	29	33	24	19	27	26	16	14	**24**
Norway	38	44	32	30	25	27	27	24	**31**
Singapore	51	36	28	24	20	23	21	20	**28**
Türkiye	44	37	35	23	30	27	24	22	**30**
USA	51	48	39	37	36	37	36	33	**40**
13 countries (avg.)	41	40	27	24	24	23	19	18	**27**

Note: Q9: based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced. Highest figures for each problem are in **bold**, lowest figures are underlined

3.3. Nature of problem - by product and type of purchase

Looking at how problems vary by product category shows some interesting variations (see Table 3.3 below). Payment issues, often related to unclear or inaccessible invoices, were the most frequently mentioned problem for digital media, telecommunication services, finance products and electricity, gas, etc. (all of which were more likely to be bought as subscription than one-off). Problems with cancellations were the number one problem for accommodation, entertainment events and flights, train travel and car rental (all of which were more likely to be bought due to COVID-19, see below). The third most important problem for bicycles, cars, etc. were issues related to post sales (42%), which, however, were still significantly more frequently encountered than for other products (24% on average).

Not shown, because relatively less frequent, though still noteworthy is that problems with scams, counterfeit goods or fraud (19% on average), featured most frequently in purchases of bicycles, cars etc. (34%) and problems with contract Terms and Conditions (18% on average), where also relatively frequently cited for purchases of bicycles, cars etc. (31%), as well as digital media (32%) and finance products (31%).

It is also worth noting that when consumers were asked about all problems encountered in their most problematic e-commerce transaction, the consumers selected fewer than three different problem types (broad) on average, except for "bicycles, mopeds, cars or other vehicles or spare parts", where they selected more.[16]

Table 3.3. Most frequently encountered problem types, by product category

Product category	Most frequent problem areas	%	Product category	Most frequent problem areas	%
Clothing, footwear, sporting goods	Product Delivery Cancellations	43 41 29	Food, beverages, groceries	Product Delivery Cancellations	49 47 22
Personal care	Delivery Product Cancellations	44 41 29	Digital media	Payment Cancellations Delivery	41 36 34
Computers, electronics, appliances	Product Delivery Complaints	49 37 26	Furniture, home, gardening	Product Delivery Cancellations	51 43 26
Medicine	Delivery Product Price	46 35 34	Printed media, CDs	Delivery Product Cancellations	47 43 27
Telecommunication services	Payment Product Price	34 33 29	Finance products	Payment Price Complaints	35 33 33
Accommodation rental including. hotels	Cancellations Product Price	41 32 31	Electricity, gas etc.	Payment Price Product	40 38 29
Entertainment events	Cancellations Delivery Complaints	42 33 32	Household services	Product Delivery Payment Price	43 38 29 29
Rideshare services	Price Delivery Cancellations	40 33 30	Flights, train, car rental etc.	Cancellations Complaints Delivery	45 34 29
Bicycles, cars etc.	Product Delivery Post Sales	50 46 42			

Note: Q9: based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

The data also shows that while differences in the likelihood of encountering problems with the product, or with delivery, are less pronounced between one-off purchases and subscriptions, subscription purchases are more likely to involve problems with *each* of the other categories of problems. **When things go wrong with subscriptions**, they would seem to go wrong **in a more complex manner**.

Table 3.4. Nature of consumer problems by purchase type

Nature of problem:	One-off purchase %	Subscription %
Problems with goods or services received	42	43
Problems with delivery of provision of goods or services	38	42
Problems with cancelling order of product returns	23	40
Problems with complaint handling, compensation, warranty or guarantee	19	37
Problems with price or tariff (including cost of delivery)	16	41
Problems with payments, invoicing or billing	15	44
Problems with scams, counterfeit goods or fraud	14	32
Problems with contract Terms and Conditions	11	36

Note: Q8 and Q9: based on all consumers experiencing problems (10 191)

3.4. Nature of problem - by socio-economic characteristics

Most of the above results are confirmed in a regression analysis that accounts for country specific differences, product specific differences as well as consumer characteristics (Annex F, Table A.F.9). These results further confirm that:[17]

- Women mention most problem types less frequently, but in particular: scams (17% for women vs. 21% for men), price issues (21% vs. 26%) and problems with T&Cs (15% vs. 21%).
- Older individuals are less likely to mention most of the different problem types, but, in particular, price (18-29 years: 29%; 30-64 years: 23%; 65+: 11%) or payment issues (27%; 22%; 13%).
- Consumers in economic distress are more likely to mention any of the different problem types, but, in particular price issues (33% for consumers in economic distress vs. 22% for all others), payment issues (31% vs. 21%), scams (27% vs. 17%) and problems with T&Cs (26% vs. 16%).
- Consumers in rural areas are more likely to mention most of the different problem types, but, in particular, scams (28% for rural consumers vs. 18% for others), cancellations (33% vs. 26%) or price issues 30% vs. 23%).

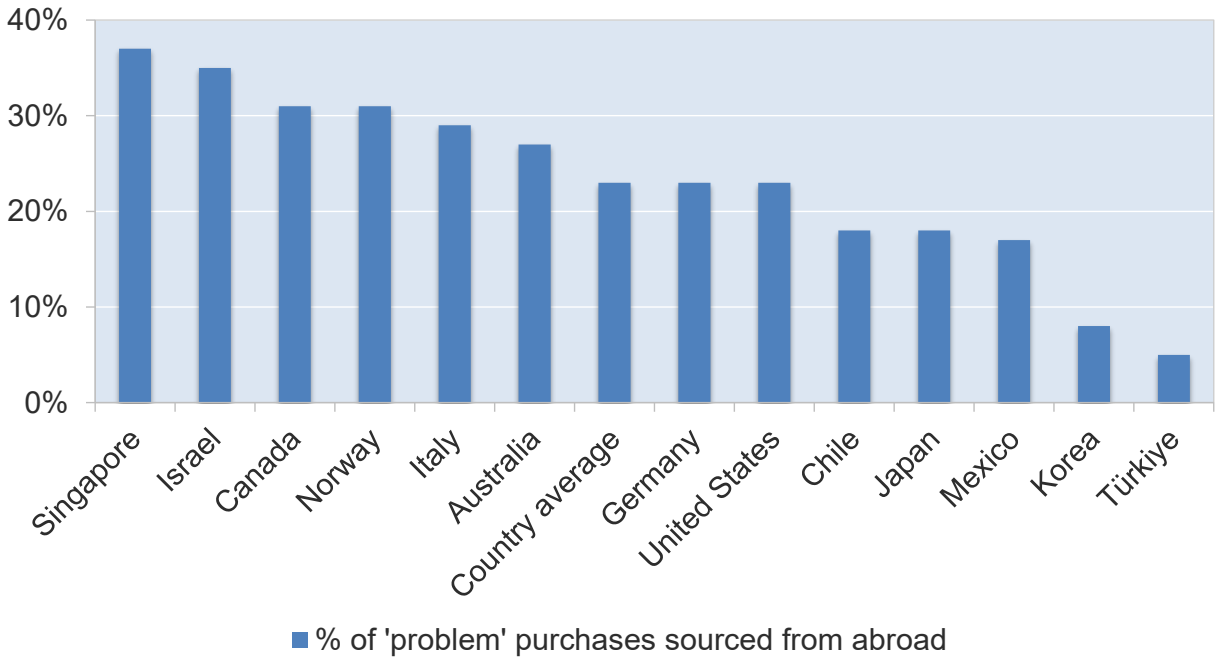
As will be discussed below, many of the problems that consumers with a high incidence of problems, and in particular men, younger consumers, consumers in economic distress and rural consumers face relatively more frequently are those that are also associated with high detriment.

3.5. Problematic purchases from domestic sellers and sellers from abroad

The graph below looks at whether the problematic good or service was purchased via domestic (i.e. "from a domestic seller") or cross-border e-commerce (i.e. "from a seller from abroad"). It shows that the proportions vary dramatically, from countries such as Türkiye and Korea, where relatively few problems are related to purchases from sellers from abroad, to smaller economies such as Singapore (a very open economy), Israel and Norway, where a significant proportion of problems are related to purchases from abroad. Interestingly, the largest economy – the United States, despite its economic size, still has a significant proportion of problematic purchases involving sellers from abroad, although it is very much in line with the average for the 13 countries as a whole.

Because not many countries collect official statistics regarding the source of online purchases, it is difficult to compare this data on the problems encountered by source of the purchase with other data, e.g. on the percentage of e-commerce transactions involving foreign sellers. It seems noteworthy, however, that Eurostat data, which provides data for 2021 on the percentage of consumers that had made purchases from sellers abroad in the last 3 months, suggests an ordering that is broadly in line with the ordering in Figure 3.2. Accordingly, the percentage was 35% for Norway, 17% for Germany and only 1% for Türkiye (data for Italy is not available for 2021).[18] It is therefore likely, that the percentage of (most serious) problems related to foreign sellers is broadly proportional to the share of consumers purchasing from abroad in the different countries.

Figure 3.2. Balance of consumer problem purchases – domestic vs from abroad



Note: Q28: based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

The profile of problematic Foreign purchases is seen to be very similar to Domestic purchases in terms of product type, with a few notable exceptions:

- Clothing, footwear and sporting goods account for a higher proportion of Foreign purchases than Domestic (29% vs 22%).
- Food, beverages or groceries are more prominent for Domestic purchases (16%) than Foreign (7%).
- Telecommunication services make up a higher proportion of Domestic purchases (7%) than Foreign purchases (3%).

There was no significant difference with regard to whether the purchase was one-off or a subscription. It is further noteworthy that purchases from foreign sellers significantly more often relate to scams (26% for foreign vs. 16% for domestic sellers), and, to a lesser degree, cancellations or returns (31% vs. 26%), post sales (28% vs. 23%) and T&Cs (21% vs. 17%). This is also confirmed in a regression analysis, which accounts for possible country differences, the socio-economic characteristics of consumers and systematic differences in purchase patterns (e.g. product variety, e-commerce spending or timing of the last purchase) among other things (see Table A.F.9).

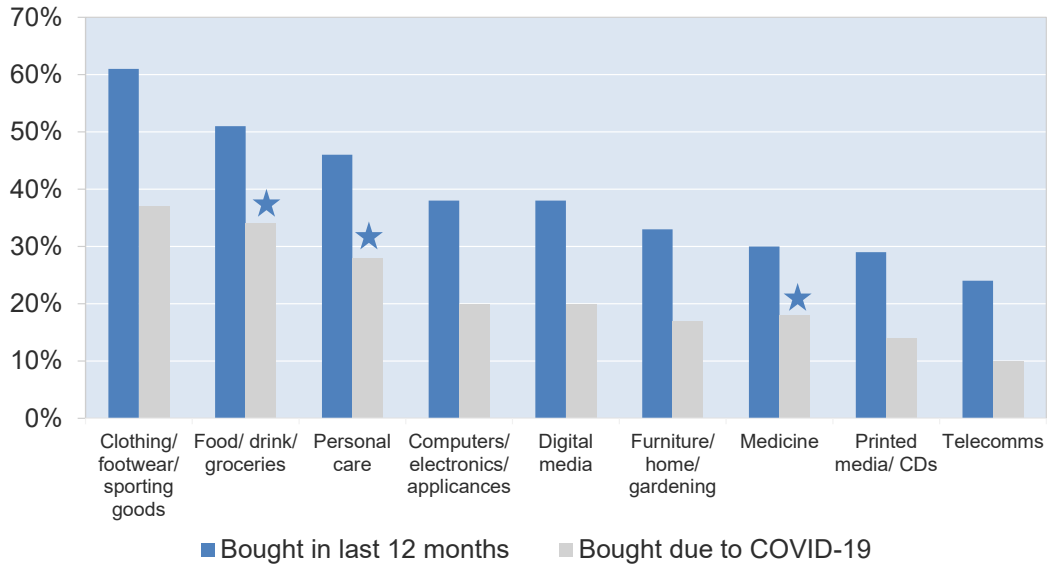
4. Impact of COVID-19

As mentioned above, fieldwork for the two pilot countries, Korea and Canada, took place in February and early March 2021, and for the remaining 11 countries in June and early July 2021. In all cases the survey asked about consumer experiences 'over the previous 12 months'. As a result, almost all experiences reported in the survey took place during the COVID-19 pandemic. It is therefore likely that the survey results reflect purchase patterns and consumer problems that differ to some extent from what would have been encountered under 'normal' circumstances (some of these changes are discussed, e.g., in (OECD, 2020[7]) and (OECD, 2020[8])). Although it is impossible to completely disentangle the effects of the pandemic from the survey results, the survey included two questions (Q3, Q10) that help to get at least some sense of the pandemic's impact on consumer behaviour and detriment.

4.1. Impact of COVID-19 on online purchases

Figure 4.1 below illustrates the share of consumers that made an online purchase of a specific product over the last 12 months (in the total sample, regardless of whether they have experienced problems or not), and compares this to the share of consumers that made a purchase due to COVID-19 (e.g. because they had to stay indoors). Note that there may be cases where consumers purchased a product several times, sometimes as a result of COVID-19 and sometimes not.

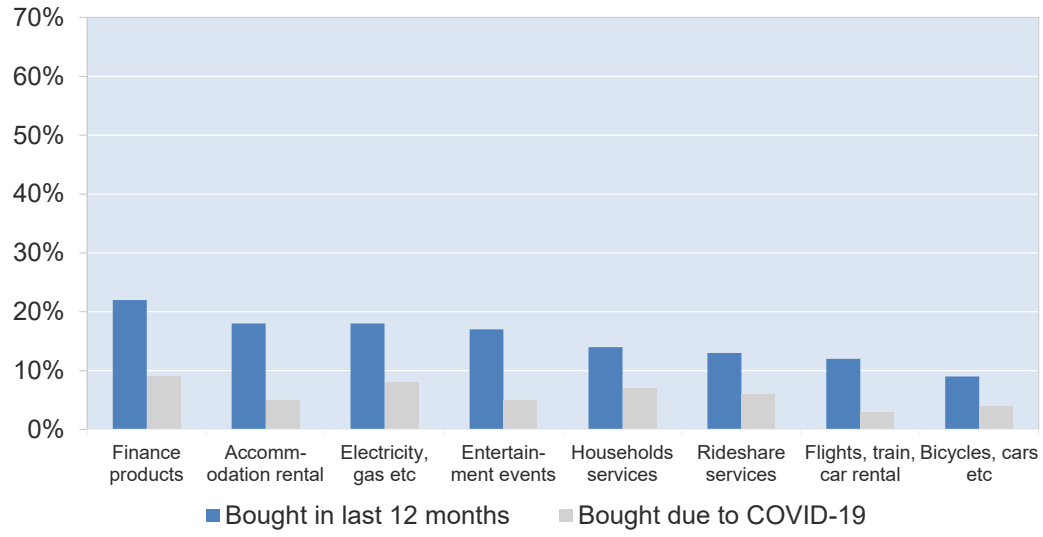
Figure 4.1. Purchase patterns by product category (I)



Note: Q2+3: based on all consumers purchasing online in last 12 months (27 124). *: represents a category where over half of consumers who bought that product category bought it for reasons due to COVID-19.

Four product categories stand out as having a relatively higher proportion of consumers making purchases made due to the pandemic – clothing, footwear and sporting goods; food, beverages and groceries; personal care; and medicine (marked by stars on the chart). In each case the proportion of consumers who had bought that product category in the last 12 months for COVID-19 related reasons was significantly over half the proportion who had purchased it for any reason.

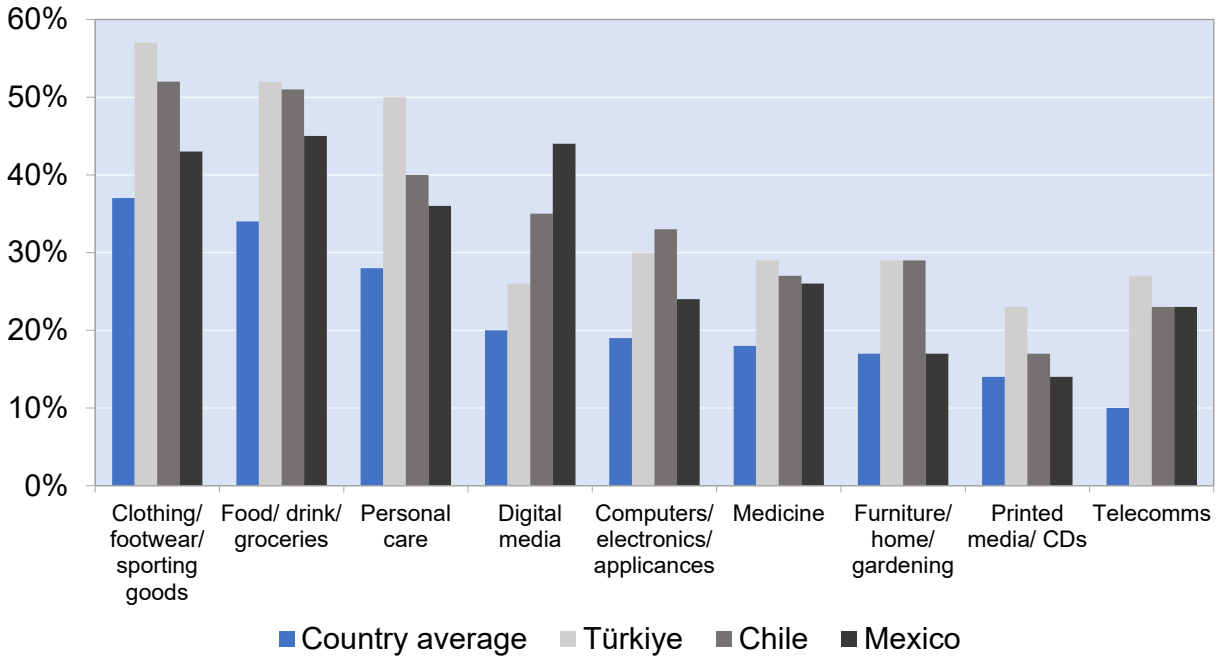
Figure 4.2. Purchase patterns by product category (II)



Note: Q2+3: based on all consumers purchasing online in last 12 months (27 124)

For three countries, Chile, Mexico and Türkiye, the proportion of consumers making purchases due to COVID-19 was higher than for other countries across the board. Other countries show higher proportions of consumers making purchases due to COVID-19 in a few individual product categories, but not as consistently as is apparent for these three countries. Figure 4.3 below outlines these differences compared to the average across the 13 countries for the nine most common product categories (the chart for the other eight categories shows a similar pattern).

Figure 4.3. Proportion of consumers purchasing each product due to COVID-19, by country



Note: Q2+3: based on all consumers purchasing online in last 12 months (27 124)

In each case (Türkiye, Chile and Mexico), e-commerce participation rates pre-pandemic were among the lowest of the 13 countries included in the survey[19], raising the possibility that the data shows the onset of the pandemic having a particular impetus in these three countries on driving consumers online for their purchases.

4.2. Impact of COVID-19 on the incidence of problems

The second measure of the impact of COVID-19 was in **consumers' perceptions** around whether the problems they encountered in the context of their most problematic purchase were a result of the pandemic or not (e.g. cancelled event tickets). The following four findings emerge:

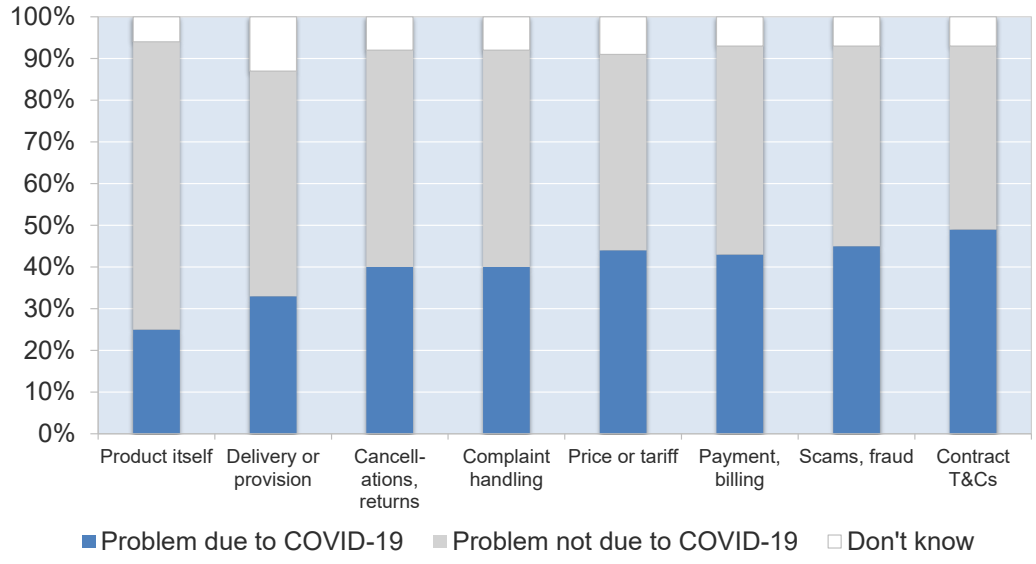
- A majority of consumers (66%) did not feel the problem encountered was a direct result of the pandemic. 25% felt the problem was a direct result of COVID-19 and 9% didn't know.
- The proportion of consumers feeling the problem was a direct result of COVID-19 is significantly higher for flights, train and car rental (60%), entertainment tickets (57%), accommodation including hotels (55%), and medicine (37%).

- Problems due to COVID-19 tended to be multi-dimensional, with consumers on average citing over three problem areas for each transaction, vs just under two for those who did not see the problems as related to COVID-19.
- Delivery issues were the most common issue where problems were directly related to COVID-19 (52% cited delivery issues vs 41% for product related issues), in contrast to purchases where the problem was not a result of COVID-19, where the bigger issue was problems with the product itself (43% vs 33%).

Figure 4.4 below maps out whether consumers felt the problem they encountered was directly due to COVID-19 or not, analysed by type of problem, in decreasing order of overall problem frequency. Consumers who had problems with contract T&Cs, followed by scams and payment issues, were the most likely to attribute the problem to the COVID-19 pandemic, although these problems were the least common overall. These results are confirmed in a regression analysis, which, apart from COVID, also accounts for possible differences regarding consumers' socioeconomic characteristics, country and product specific effects, as well as whether the transaction is a subscription or a one-off purchase or whether the seller was domestic and foreign (see Annex F).

It further seems noteworthy, that the highest share of COVID-19-related problems with T&Cs were encountered in the context of purchases related to accommodation rental (71%), flight and train tickets etc. (67%) and tickets for entertainment events (62%). These are all categories more likely to have been affected by COVID-19 restrictions, which may have triggered certain (potentially otherwise overlooked though still common) aspects of the terms and conditions to become binding. In comparison, T&Cs-related problems were significantly less frequently associated with the COVID-19 crisis when they occurred in the context of telecommunication services (35%), financial services (38%), ridesharing services (38%) or electricity, water supply etc. (39%).

Figure 4.4. Impact of COVID-19 on problems by type of problem

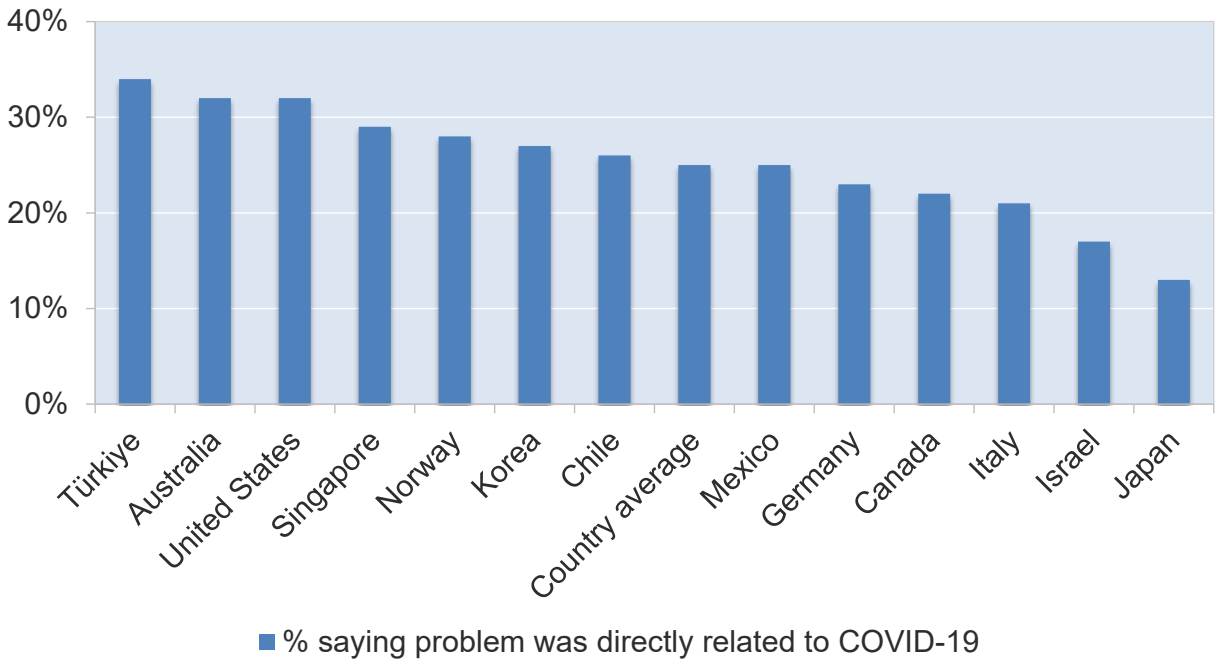


Note: Q10: based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

Considering the findings by country also shows interesting differences. In Türkiye, the United States and Australia, over 30% of consumers thought the problems they had faced

were directly related to COVID-19, while the percentage was lower for Israeli (17%) and, particularly, for Japanese consumers (13%).

Figure 4.5. Percentage of problems perceived as COVID-19-related, by country



Note: Q10: based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

5. Financial detriment

5.1. Key components of detriment: All online consumers

A key objective of the research was to estimate financial detriment, taking into account various elements, such as a potential loss of use of the product, hidden fees, costs incurred in resolving the problem, and any compensation or redress. The approach largely followed the methodology developed for the EU Report *Study on measuring consumer detriment in the European Union* (EC, 2017[5]). The details of the calculation are contained in Annex D, but in outline the approach was as follows:

- Ascertaining the price paid for the good or service (including the price paid per week, month or year if it was a subscription).
- Establishing the extent to which the product could not be used as a result of the problem, as well as the duration of the problem.
- Combining these responses to establish the value of the 'loss of use' caused by the problem – for instance if the consumer paid USD 100 a month for a subscription service, and experienced a problem lasting two months where they could not use the service at all, the loss of use would be USD 200.

- Adding on any additional charges or hidden fees the consumer had to pay (i.e. any costs over and above expectations, including, e.g., for add-on services that were not intentionally ordered).
- Adding on any extra costs incurred by the consumer (e.g. relating to repairs/replacement, damages or legal costs).
- Totalling these values to calculate the total 'detriment', before any redress was received.
- Calculating 'redress' as any reimbursement or compensation received (this includes cancellations: e.g. if a service is cancelled or a good returned, redress is set equal to the 'loss of use').
- Adding the value of any repairs or replacement received (treated as equivalent to the loss of use calculated earlier).
- Subtracting this total 'redress' from the 'pre-redress detriment' gives a final figure for 'post-redress detriment'.

As a result of this calculation, it should be noted that it is possible (and was commonly the case in the data) that pre-redress detriment can exceed the price paid for the good or service, e.g. through additional costs being added to full loss of use.

The table below summarises all elements of the questionnaire that feed into the calculation of financial detriment.

Table 5.1. Constituent elements of financial detriment calculation

Question No:	Subject		Detriment component
Q8	Price paid for good or service (taking into account one-off or subscription)	➔	Pre-redress detriment
Q12	Extent to which product could still be used after the problem occurred	➔	
Q22/23/24	Duration of the problem	➔	
Q11	Additional or hidden charges	➔	
Q17	Extra costs incurred (repairs/replacement, legal, damage, other)	➔	
Q20	Reimbursement or compensation	➔	Redress
Q19	Was product repaired or replaced	➔	
(Post-redress) Detriment = pre-redress detriment – redress			

Table 5.2 below shows how these different elements add up, on average, to the three key measures of financial consumer detriment (pre-redress detriment, redress and post-redress detriment).

Table 5.2 Consumer pre-redress and post-redress detriment by component part

Country (13)	mean USD	median USD
Product Value (for reference)	**224.9**	**59.4**
Loss of product use	153.6	32.5
Hidden or additional fees	26.2	0
Extra costs incurred	39.0	0
Pre-redress detriment:	**218.8**	**56.9**
Monetary redress (including compensation or reimbursement through cancelling or returning the product)	94.7	8.6
Repairs or replacements	55.0	0
Redress:	**149.7**	**20.8**
Post-redress detriment:	**69.1**	**5.7**

Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices.

The table shows that loss of product use is the main component of consumer detriment. Hidden or unexpected fees or extra costs (such as repairing damage caused or legal fees) are still significant, though overall less important elements of detriment. In turn, consumers receive significant redress in terms of refunds or cancellation, and, to a lesser degree, repairs or replacement. However, the table also shows that, on average, the considered elements of redress are not sufficient to totally offset the detriment experienced overall.

Apart from the absolute amounts of financial detriment and redress, Table 5.2 can also provide some insights regarding the (pre-redress) detriment consumers suffered *relative* to the value of the purchase (**relative detriment**) and the amount of redress obtained *relative* to (pre-redress) detriment suffered (**redress sufficiency**). The first measure captures the gravity of the problem, accounting for the fact that more expensive products naturally tend to be associated with higher detriment (e.g. cancelled flights). This is a useful measure, e.g. in the context of the socio-economic analysis, because it takes into consideration that certain socio-economic types of (e.g. wealthier) consumers more frequently tend purchase more expensive products. The second measure captures how successful individuals that have faced a problem are in obtaining redress, accounting for the fact that high levels of pre-redress detriment (e.g. for expensive goods) naturally tend to be associated with higher levels of redress.

Based on the aggregate values from Table 5.2, *relative detriment* is close 97%, implying that consumers (before redress) on average lost almost the full product value as a result of their most serious problem. Average *redress sufficiency*, based on aggregate detriment and aggregate redress, is 68%, suggesting that close to one third of the initial financial detriment was not compensated by redress. However, these aggregate ratios, based on the average values of the product price, detriment and redress, hide significant variation across consumers. This can be seen when defining both measures at the individual consumer level (rather than the cross-sample averages) and considering how frequent consumer fall into certain "categories" of *relative detriment* and *redress sufficiency* respectively (see Box 5.1. for a summary of the advantages and disadvantages of different summary statistics for *relative detriment* and *redress sufficiency*).

Regarding *relative detriment*, the data shows that:

- For 12% of consumers, *relative detriment* = 0, i.e. the problem they describe did not lead to any financial consumer detriment.[20]
- For 26% of consumers, 0 < *relative detriment* < 1, i.e. there was some pre-redress detriment but less than the product value (e.g. they could only partly use the product or had suffered some additional costs).
- For 26% of consumers *relative detriment* = 1, i.e. pre-redress detriment was equal to the product value (typically because consumers could not use the product at all, but otherwise faced no additional detriment).
- For 36% of consumers *relative detriment* > 1, i.e. pre-redress detriment surpassed the product value (e.g. they couldn't use the product at all and on top of that incurred hidden or extra costs).

For a small number of 72 consumers (<1%), relative detriment is not defined because the value of the purchase was zero.

For *redress sufficiency*, the data suggests that:

- For 27% of consumers *redress sufficiency* = 0, i.e. they suffered non-zero pre-redress detriment but received no redress at all.[21]
- For 27% of consumers 0 < *redress sufficiency* < 1, i.e. they suffered non-zero pre-redress detriment which was partly offset by redress.[22]
- For 23% of consumers *redress sufficiency* = 1, i.e. redress exactly offset the financial detriment suffered (e.g. the seller replaced a broken product at no additional cost).
- For 11% of consumers *redress sufficiency* > 1, i.e. redress more than offset the initial detriment suffered.

For the remaining 12%, namely those who suffered zero pre-redress detriment, *redress sufficiency* as a ratio is not defined and post-redress detriment was either zero or negative (i.e. they received some redress despite not having suffered any financial detriment).[23] In sum, this leaves **slightly more than half of consumers (54%) who still suffered financial detriment after accounting for all redress measures that were known to the consumers at the time of the survey**.

Box 5.1. Robustness: different summary statistics for *relative detriment* and *redress sufficiency*

There is no optimal way to summarize how *relative detriment* and *redress sufficiency* vary between different countries, types of problems or consumers in a single statistic. The most common approach includes comparing the *mean* or the *median* ratios, defined at the individual consumer level, across different groups of consumers (e.g. in two countries). However, both measures are imperfect. In particular, the *median* only considers the mid-point of the distribution, ignoring relevant variation. To see this, consider that a large share of consumers around the mid-point, namely from the 38th to the 64th percentile, suffer pre-redress detriment exactly equal to the purchase value (*relative detriment* = 100%). These are consumers that cannot make any use of the product as long as the problem lasts (e.g. they received the wrong product) but otherwise face no additional detriment. Because this is a frequent scenario, the *median* of *relative detriment* is, e.g., equal to 100% in all countries. The problem is less pronounced for redress sufficiency (the median varies around 59.9% across countries).

The *mean*, on the other hand, is strongly affected by a handful of very high values, which are not representative of what happens to the "average" consumers. To see this, consider that the *mean redress sufficiency* rate (still defined at the individual level) is 93%, suggesting that consumers, on average, were almost fully compensated for the detriment suffered. However, this high average is due to only a handful of consumers with extremely high *redress sufficiency* ratios. In particular, for five consumers redress exceeded pre-redress detriment by a factor of 50 or more (i.e. *redress sufficiency* > 5000%). While these "outliers" are not as such unreasonable[24] and hence they should not be excluded, their impact on the results seems over-proportional: when excluding these five consumers, mean *redress sufficiency* diminishes significantly, from 93% to 76%. The problem also emerges for *relative detriment* with a mean of 253%, i.e. detriment is over twice as high as the product value.

An alternative is to consider the ratio of *mean* redress over *mean* detriment (or similarly with detriment and the product value). This is less *accurate* in the sense that it is not based on the actually observed values of *relative detriment* or *redress sufficiency* at the individual consumer level. However, it still can deliver useful insights. For example the average values presented in Table 5.2 would suggest *relative detriment* (defined at the aggregate level) of 97% and *redress sufficiency* of 68%, which is close to the median for *relative detriment*, defined at the individual consumer level, and falls between the median and the mean for *redress sufficiency*. But while this aggregate ratio is less affected by outliers in the *ratios* defined at the micro-level (e.g. neither USD 45 for redress nor USD 0.45 for detriment, as discussed in Footnote 24, will have a particularly large impact on the respective mean values), it can still be affected by some very high (*absolute*) values for the product price, detriment or redress.

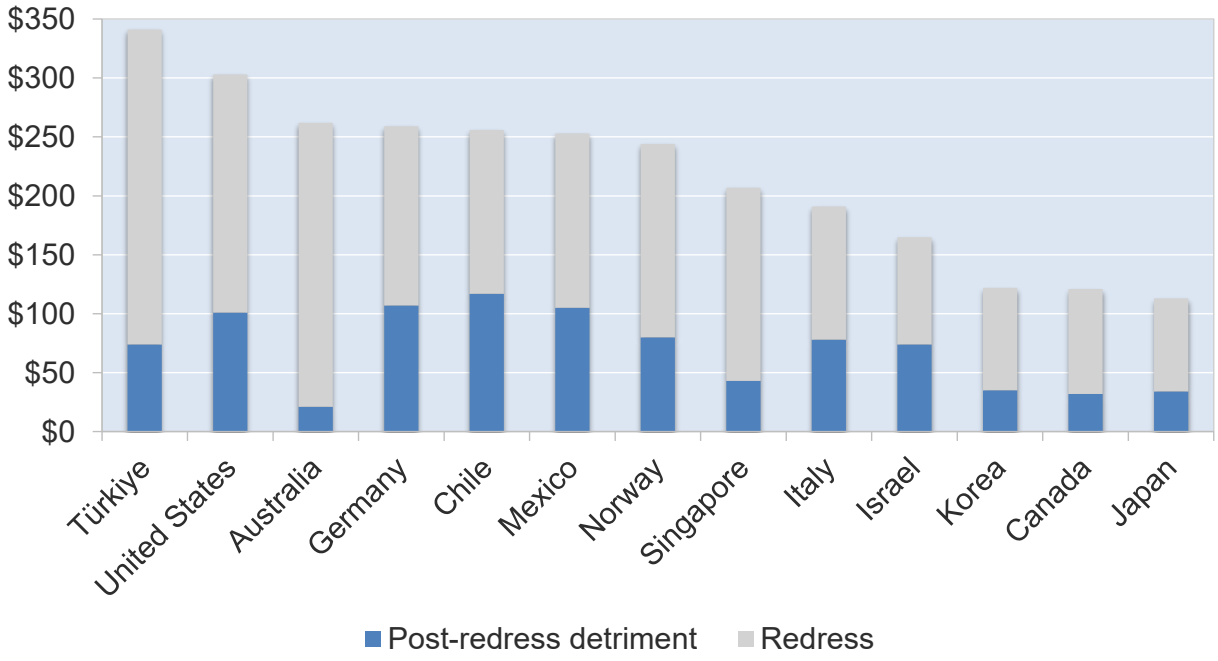
To ensure that the following analysis is robust, the discussion will rely on a mix of these different measures, highlighting relevant deviations where appropriate. The robustness of the results will further be tested using regression analysis. This analysis also considers the *mean* of *relative detriment* and *redress sufficiency*, defined at the individual level, but circumvents the outlier problem by applying the inverse hyperbolic sine (IHS) transformation. This leaves smaller ratios (e.g. below 50%) basically unaltered but pulls in larger ratios (e.g. above 3000%) similar to a log-transformation, effectively reducing the impact of outliers on the mean. Thus, for example, columns (8) of tables A.F.3 and A.F.6., respectively, predict a *relative detriment* ratio of 117.4% and a *redress sufficiency* ratio of 60%, after accounting for a possible impact of country or socio-

economic differences on the results. Both values lie between the actually observed median and the actually observed mean, which seems appropriate in the context of a right-skewed distribution.

5.2. Detriment – by country

Figure 5.1 summarises the average levels of pre-redress detriment (sum of grey and blue bar), redress (grey bar) and post-redress (blue bar) for each country, reflecting *aggregate* averages similar to those provided in Table 5.2.[25]

Figure 5.1. Consumer detriment by country – mean



Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. The total height of the stacked bar represents *mean* pre-redress-detriment and is split into *mean* redress and *mean* post-redress detriment. Where monetary values are presented, they are presented in USD. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices.

It shows, first, that levels of pre-redress detriment are highest in Türkiye and the United States and lowest in Korea, Canada and Japan. As can be seen from Table 5.3, this is largely a reflection of average purchase values being significantly higher in countries towards the left of Figure 5.1, like Türkiye or the US. Accounting for the differences in the average purchase value, detriment still remains relatively higher in Türkiye and US, as well as Australia and Mexico. Overall, pre-redress detriment in most countries remained within +/- 15% of the average product value. *Relative detriment* was lowest in Singapore, Israel, Canada and Korea.[26]

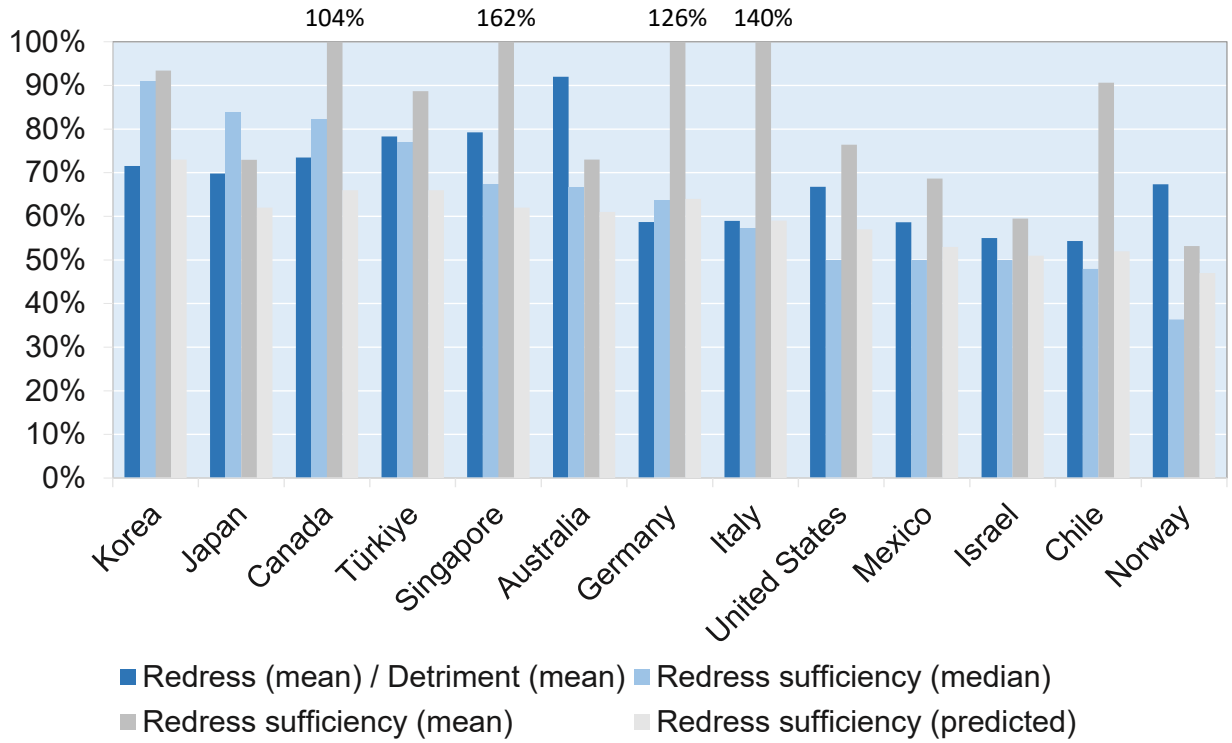
Table 5.3. Purchase value and relative (pre-redress) detriment by country

	Türkiye	Germany	United States	Chile	Singapore	Norway	Australia	Mexico	Italy	Israel	Canada	Korea	Japan
Product value (mean, USD, ppp)	306	287	284	267	258	248	239	232	208	191	142	138	121
Rel. detriment	112%	90%	107%	96%	80%	98%	109%	109%	92%	86%	85%	89%	94%

Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. *Relative detriment* is defined here, for each country, as the ratio of mean pre-redress detriment over the mean product value. See Box 5.1 for a discussion of possible alternative measures.

Second, redress, relative to pre-redress detriment (*redress sufficiency*), seems to be particularly low in Chile and Israel (comparing height of the grey bar relative to the total height of the bar). In comparison, *redress sufficiency*, here defined at the aggregate level, seems to be particularly high in Australia, such that the original detriment appears to be largely mitigated. However, it turns out that this latter result is largely driven by a handful of cases with very high *absolute* levels of redress (up to USD 30 000 for one financial transaction) that remain in the sample even after measures were taken to omit unrealistically high value 'outliers' (see Annex C). In particular, as shown in Figure 5.2, which compares the different relevant summary statistics discussed in Box 5.1., neither the mean nor the median of *redress sufficiency*, defined at the level of individual consumers, is particularly high in Australia. This comparison does, however, confirm the relatively low redress sufficiency in Chile and Israel and further suggests overall lower *redress sufficiency* for Norway. According to this more robust comparison, the highest levels of redress sufficiency were achieved in Canada, Japan, and Türkiye and, in particular, Korea, where redress covered around 93% of pre-redress detriment for the median consumer. This ordering of countries remains broadly robust when accounting in a regression for the type of products purchased by the consumer, the average price paid or the type of problems encountered (Column 8 of Table A.F.6), implying that, at least to some extent, more fundamental differences (e.g. cultural or regulatory) must be at play.

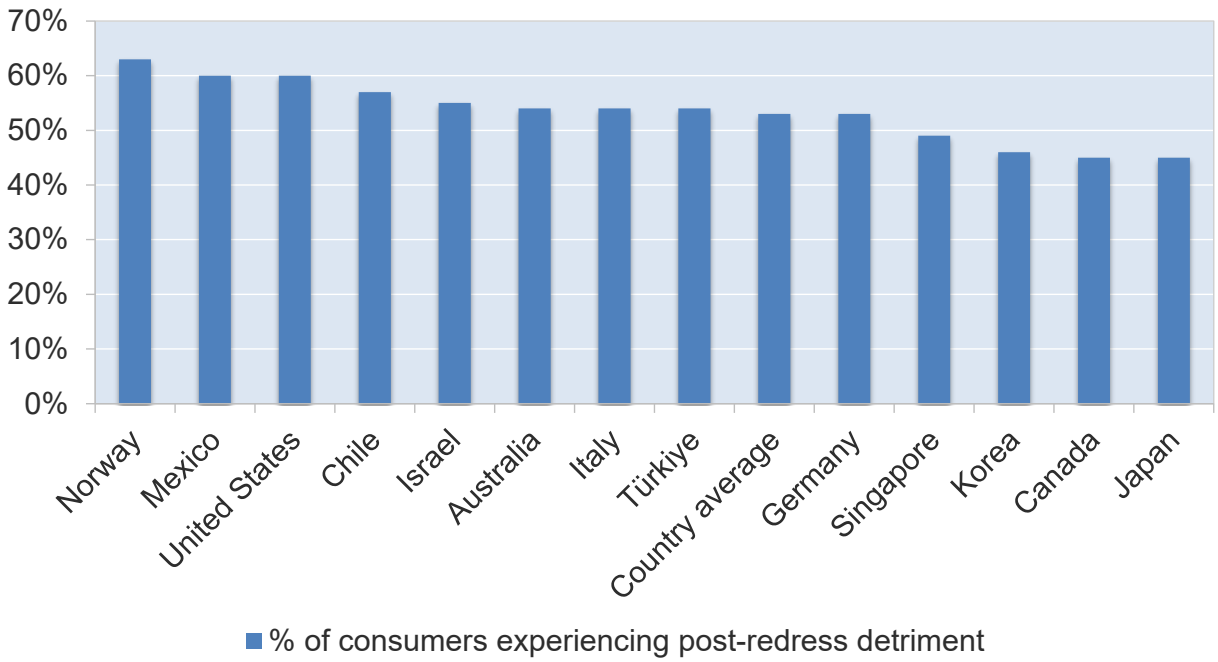
Figure 5.2. Redress sufficiency by country – different measures



Note: Redress sufficiency is the ratio of redress over pre-redress detriment defined at the individual consumer level. Redress (mean) and Detriment (mean) are based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. The different measures of redress sufficiency are based on all consumers experiencing positive financial pre-redress (8 851). Predicted redress sufficiency is the mean of redress sufficiency as predicted by a regression of (inverse hyperbolic sine transformed) redress sufficiency on country specific fixed effects and socio-economic characteristics (based on Column 2 of Table A.F.6).

The results, shown in Figure 5.3, suggest that even after different opportunities for seller/providers to address consumer problems and provide suitable redress (e.g. compensation, replacements, etc.) – to the extent consumers are aware of them at the time of the survey - are accounted for, still over half of consumers who experienced problems suffered detriment related to their most serious problem across all countries (54%). Canada (45%), Japan (45%) and Korea (49%) are the only countries where the proportion falls just below 50%.[27]

Figure 5.3. Percentage of consumers experiencing post-redress detriment



Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced.

It should be noted however that despite the detail of the calculation, and the numerous elements it encompasses, with a handful of exceptions, the proportion of consumers in each country left with post-redress financial detriment is within seven percentage points of the average across the 13 countries. The percentage of consumers experiencing post-redress detriment related to their most problematic problem varies by country, but in a narrow range between 45% and 63%. While this variation may represent differences in the regulatory context, it could also be a function of cultural and economic differences that determine how many consumers decide to make use of the available redress mechanisms

5.3. Detriment - by type of problem

Table 5.4. Financial detriment by type of problem - mean

Type of problem:	Price paid for product* USD (mean)	Pre-redress detriment USD (mean)	Post-redress detriment USD (mean)
Price	267.0	295.7	69.0
Payment	259.7	284.3	58.4
Delivery	221.9	217.4	62.3
Product	216.4	219.3	40.4
T&C	273.1	311.0	65.9
Cancellation	267.9	294.4	64.9
Post Sales	292.8	312.6	78.1
Scam	265.1	301.3	73.3
Other	254.0	205.7	84.5

Note: Q9; based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices (see Footnote 18 for further details). * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for.

Table 5.4 shows how financial consumer detriment varies by type of problem.[28] Because consumers typically listed several problems, in this case the same consumer may appear in the averages of several rows. From this aggregate data it appears that, apart from the *Other* category, pre-redress detriment relative to the price paid was highest for issues related to T&Cs and scams and lowest for issues related to delivery or the product itself. Redress sufficiency was highest for problems related to the product itself and lowest for problems related to post sales and scams, but also delivery issues. Apart from the low redress sufficiency for delivery issues, this is confirmed in the regression analysis (Table A.F.3 and A.F.6), which limits the impact of extremely high values on the results and accounts for possible country specific effects as well as differences related to certain socio-economic consumer characteristics. In particular, the findings suggest:

- Significantly higher *relative detriment* when the problem was linked to payment issues or problems with T&Cs, cancellations or scams and lower when the problem was related to delivery issues or the product itself.
- Significantly lower *redress sufficiency* when the problem was linked to issues with the price, post sales or scams and higher for problems related to delivery issues or the product itself.

Furthermore, the findings show that when problems became more complex, i.e. the consumer linked the problem to a higher number of different problem types, relative detriment increased and redress sufficiency diminished.

A notable difference is also evident between problems which were directly related to COVID-19 and those that were not (Table 5.5). 'COVID' problems were of significantly higher value, possibly reflecting the presence of slightly more accommodation and flight-related purchases compared to non-COVID-19 related problems, which, despite being relatively rare overall, tend to be more expensive. It was also seen earlier in the report (see Section 4.2) that COVID-19 problems tended to be more complex in general than non-COVID-19 problems, and so, unsurprisingly, pre-redress detriment is also significantly

higher. It is also apparent that the probability of pre-redress detriment being equal to or higher than the product value is higher when the problem was attributed to COVID-19 (65% compared to 51%). Additionally, the probability of obtaining full redress is significantly lower (36% compared to 50%). This result can be linked to the types of problems that consumers encountered relatively more frequently when the problem was COVID-19 related, such as problems with T&Cs, price and payment related issues, or scams (see above). Thus, for example, it is noteworthy that for COVID-19-related problems, the probability of the problem being related to T&Cs more than triples, from 10% to 30%. As detailed above, these problem types tend to be associated with significantly higher relative detriment and/or relatively lower redress sufficiency.

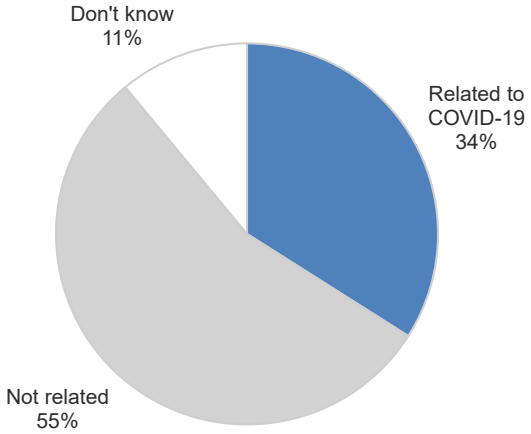
Table 5.5 Financial detriment by whether problem related to COVID-19

Was problem directly related to COVID-19?	Price paid for product* USD (mean)	Pre-redress detriment USD (mean)	Post-redress detriment USD (mean)
Yes	336.4	367.4	93.4
No	184.3	165.5	57.8

Note: Q10; based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for.

Combining these figures on the relative magnitude of Covid-19 related detriment with the data for whether consumers thought their problem was COVID-19 related (25%) can give an estimate for the proportion of detriment measured in the survey that was due to COVID-19. The results, taken at face value, would suggest that 34% of the total financial (post redress) detriment encountered can be attributed to COVID-19 (shown below in Figure 5.4).

Figure 5.4. Financial detriment by whether problem was related to COVID-19



Note: Q10; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

5.4. Detriment - by product and type of purchase

When considering whether the purchase was a one-off or subscription, there appear to be little *overall* differences in terms of relative detriment and redress sufficiency when considering the aggregate values displayed in Table 5.6.[29] However, when considering both measures at the individual consumer level, significant differences emerge. First, subscriptions are clearly associated with higher *relative detriment*, both when considering the ratios as they directly emerge from the sample (803% for subscriptions and 116% for one-off) and after limiting the impact of outlier values and accounting for other observable differences in a regression (185% for subscriptions compared to 103% for one-off purchases, see Table A.F.4).

Second, the percentage of consumers obtaining *full redress* is significantly lower for subscriptions (36% vs. 48%), a result that is also confirmed in the regression analysis. The results are less clear for the ratio of *redress sufficiency:* while *redress sufficiency* is significantly lower for the *median* consumer of a subscriptions (40% compared to 67% for one-off purchases), the *mean* redress sufficiency rate is actually higher for subscriptions, a result that is also confirmed in the regressions. It turns out that this latter difference is exclusively driven by consumers who obtained *more* than full redress. In particular, when consumers obtained more redress than needed to compensate for the original detriment suffered, the added benefit is significantly higher for consumers that had faced problems with a subscription. This could be explained by the relatively higher share of subscriptions for products with low marginal costs (like streaming or telecommunication services), which make it cheaper for sellers to provide additional redress (e.g. an extra month of the subscription for free for a problem that lasted only a couple of days).

Table 5.6 Financial detriment by type of purchase

Type of purchase:	Price paid for product* USD (mean)	Pre-redress detriment USD (mean)	Post-redress detriment USD (mean)
One-off	205.9	201.8	62.7
Subscription	301.8	287.5	95.0

Note: Q8; based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for.

The high level of detriment and the low rate of redress is again linked to higher (predicted) likelihood of encountering problems related to T&Cs (26.9% for subscriptions vs. 10.6% for one-off purchases), payment (32.2% vs. 15.6%), prices (31.0% vs. 15.6%), scams (24.3% vs. 12.6%) or post sales (32.9% vs. 18.5%) (see Table A.F.10), i.e. problems that are typically associated with higher detriment and/or lower redress sufficiency. One other notable difference between the two types of purchases is that the sum of hidden or extra costs is, on average, around twice as high for subscription purchases (USD 108.7 compared to USD 54.5 for one-offs).

Interesting findings also emerge when looking at the type of product consumers faced problems with. The figures below show post-redress detriment as a proportion of pre-redress detriment, by product category as well as the percentage of consumers who obtained full redress (Table 5.7).[30]

Table 5.7 Financial detriment by product type

Product type	Price paid* USD (mean)	Pre-redress detriment USD (mean)	Post-redress detriment USD (mean)	Post-redress detriment / pre-redress detriment %	Consumers obtaining full redress %
Finance products	763.1	775.1	66.1	9	42
Flights, train, car rental etc.	759.3	810.5	366.3	45	39
Bicycles, cars etc.	601.5	542.5	222.9	41	41
Accommodation rental including hotels	517.0	497.4	108.7	22	44
Household services	374.5	241.8	101.0	42	39
Computers, electronics, appliances	371.9	337.1	76.1	23	48
Furniture, home, gardening	336.4	308.3	106.9	35	47
Electricity, gas etc.	265.3	280.3	159.9	57	34
Entertainment events	223.6	239.3	81.8	34	35
Telecommunication services	161.9	192.6	105.1	55	38
Medicine	141.4	153.0	36.6	24	34
Digital media	136.6	141.7	53.8	38	40
Clothing, footwear, sporting goods	119.5	118.8	26.8	23	49
Printed media, CDs	111.1	121.6	78.7	46	51
Food, beverages, groceries	95.5	94.2	26.4	28	51
Personal care products	94.2	108.5	35.6	33	46
Rideshare services	68.8	101.4	49.2	49	41
Other goods or services	205.7	265.9	162.5	61	50

Note: Based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted.

Electricity and gas, medicine, entertainment events, telecommunication and household services as well as flights, train and car rentals emerge as the product categories where it seems most difficult for consumers to obtain *full redress*. Apart from household services, these results are fully confirmed for *redress sufficiency*, after limiting the impact of extreme values and accounting for structural country and socio-economic differences. In particular, compared to a mean redress sufficiency rate of 58.9%, the rates are significantly lower for Telecommunication services (46.4%), Electricity and water (47.1%), Medicine (48.2%), Entertainment events (51.3%) and Flights, train, car rental etc. (53.6%).[31]

It is noteworthy, that:

- **Flights, train and car rentals**, **entertainment events** and **medicine** etc. have been disproportionately affected by COVID-19 cancellations, and while it was noted earlier in the report (see Section 2.3) that there is no data to suggest that the *incidence* of detriment is higher than for other categories, the data in Table 5.7 does suggest that when problems *have* occurred, they have been less successfully resolved. However, there seem to have been less difficulties in resolving problems

in the case of accommodation services, which also are product categories frequently purchased due to Covid-19.

- **Telecommunication services, and electricity and gas** both feature a significantly higher proportion of subscription purchases (69.4% and 45.6% respectively, compared to an average of 20.5%). As discussed above, subscriptions more frequently tend to involve hidden or extra costs and often involve problems that tend to be more difficult to resolve (e.g. problems related to the price, post sales, or scams). Accordingly, consumers purchasing the above-mentioned services as subscribers also had a more difficult time to fully resolve their problems than consumers purchasing the same services as a one-off purchase.

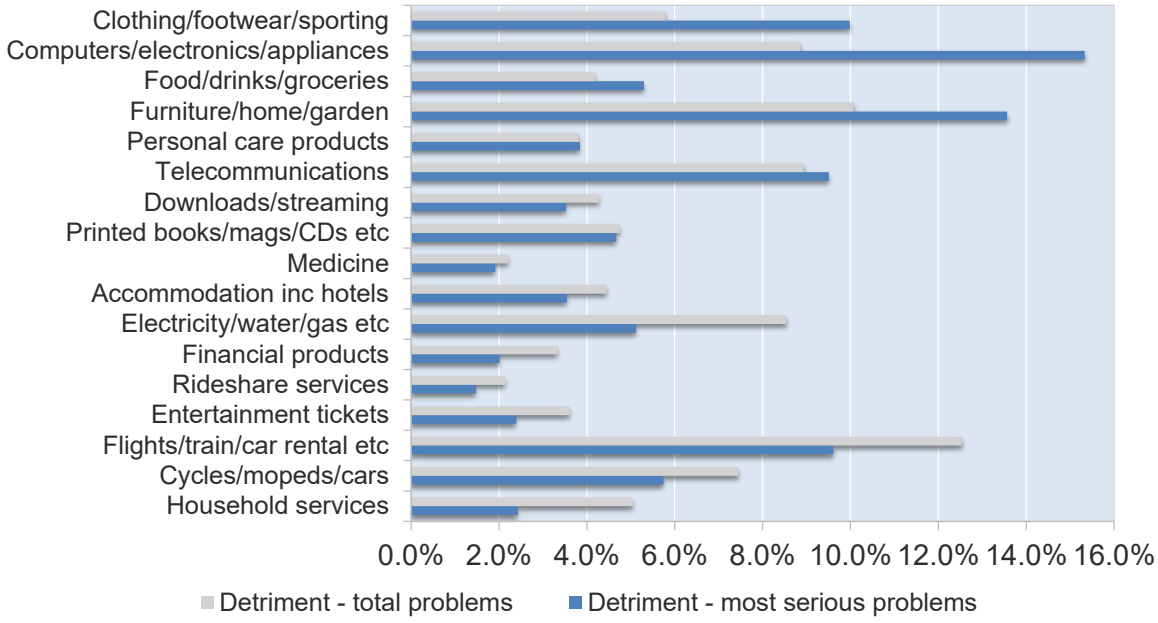
It is also interesting to compare the pattern observed when the *frequency* with which a product category was selected as the most serious problem is combined with the average *magnitude* of post-redress detriment experienced. These figures are presented in Figure 5.5 below. For each product category, the lower, dark blue bar shows the proportion of respondents across all countries in the survey citing that product as their 'most serious problem' (and being able to recall values to underpin the detriment calculation), multiplied by the average value of personal post-redress detriment per product.

Product categories are listed in decreasing order of the frequency of being cited as the most serious problem by respondents. This ordering allows to assess how much each individual product category contributes to total financial post-redress detriment (from the most serious problem), relative to the frequency with which problems occur. For example, while **flights, train tickets and car rental** are relatively infrequently cited by consumer as their most serious problems (3%), *if* problems occur, they tend to cause relatively high detriment, likely due to their high value. Hence the *total* detriment they cause is relatively high. Conversely, personal care products are a relatively frequently cited as the most serious problems. Nevertheless, the detriment they cause tends to be relatively low on average, as is the total detriment they cause. The least amount of detriment is caused by rideshare services, which cause relatively few most serious problems, each of which further causes only limited detriment (in absolute terms) if they occur.

The upper, grey bar again uses the average value of post-redress detriment per product, but now multiplied by the *overall* percentage of consumers that have encountered at least one problem with this particular product category, including not only the most serious but any problem (i.e. the incidence as depicted in Table 2.3). Accordingly, the fact that the grey bar for flights, train, car rental etc.is longer than the blue bar reflects that a higher share of respondents indicated that they had problems related to a purchase of flights, train, car rental etc., than the proportion identifying problems in that category as their most serious problem. Hence, the contribution of flights, train, car rental etc.to overall detriment is likely to be higher than the data based on the most serious problem suggests, because relatively more people also tended to have less serious problems with these product categories.

However, this grey bar though should be seen as an upper bound as it attributes the average value of post-redress detriment derived from 'most serious problems' in that product category to *all* the problems in that category. In reality, less serious problems by definition resolute in less serious detriment, such that the real contribution of the product category to total detriment is likely to be lower (i.e. somewhere between the grey and the blue length of the bars).

Figure 5.5. Aggregate consumer detriment by product type



Note: Based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced.

5.5. Detriment - by type and origin of seller/provider

Considering detriment by the type of seller/provider (Table 5.8), two categories stand out: Specialised retailers (i.e. retailer who focus on one particular type of product, such as Spotify, airlines or pharmacies) that operate online and offline, and, in particular, social media or messaging apps. For both categories the share of consumers obtaining full redress is significantly lower (40% and 38%, respectively) than for other types of sellers (47%). This is also confirmed by the *median* redress sufficiency, which is particular low for transactions involving social media or messaging apps (26%) and, to a lesser degree, for specialised retailers selling both offline and online (50%, compared to 64% for other types of sellers). A regression analysis, which also accounts for socio-economic differences, country or product specific effects and the over-proportional impact of outlier values only confirms the significantly lower redress sufficiency for transactions involving social media and messaging apps.

There are various potential reasons for these results. In particular, problems involving specialised retailer that operate online and offline more often:

- featured purchases of telecommunication services (11% vs. 5% for other seller types) and flight or train tickets (3.8% vs. 1.3%)
- involved subscriptions (30% vs. 19%)
- involved problems related to the price (29% vs. 23%) and, in particular, problems with complaint handling, compensation and warranties (32% vs. 22%). The latter could potentially result from confusion over which channel was responsible for resolving problems (online or traditional bricks and mortar stores)
- involved problems related to COVID-19 (37% vs. 26%)

Problems associated with purchases through social media or messaging apps more often:

- featured problems related to household services (4.5% vs. 1.6%)
- involved scams (27% vs. 19%)
- involved foreign sellers (29% vs. 25%)

As previously discussed (or below for foreign sellers), all of the above tend to be associated with significantly lower redress sufficiency. It is also noteworthy that the level of trust tends to be lower for purchases involving social media or messaging apps.[32] In particular, while on the whole 77% of consumers completely or mostly trusted the seller/provider they bought from, with purchases via Social Media or messaging apps the figure falls to 63% (with 35% only partly or not trusting them), suggesting lower *perceived* reliability.

Table 5.8 Financial detriment by type of seller/provider

Type of seller/ provider	Price paid for product* USD (mean)	Pre-redress detriment USD (mean)	Post-redress detriment USD (mean)	Full redress (% of consumers)
Specialised retailer – online only	205.8	237.4	65.5	42%
Specialised retailer – online and offline	280.1	271.9	110.7	40%
General retailer – online only	151.3	144.7	35.9	50%
General retailer – online and offline	250.3	220.5	50.0	49%
A business via an online marketplace	275.4	261.4	60.2	48%
An individual via a peer-to-peer platform	226.2	211.2	61.6	44%
Via social media or messaging apps	283.1	266.0	123.4	38%

Note: Based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for. *Full redress* is the percentage of consumers that obtained at least as much redress as the pre-redress detriment suffered.

Comparing problems with domestic sellers to problems with sellers from abroad shows that levels of detriment – both pre-redress and post-redress - are slightly lower for purchases from abroad (Table 5.9).[33] However, looking at the data more closely suggests this difference might in part be due to the majority of extreme detriment values being for domestic purchases, stretching out the mean values – the corresponding *median* post-redress detriment figures are USD 5 for domestic purchases and USD 11 for international ones. Overall, it does seem in fact to be more difficult to obtain redress for problems involving foreign sellers. This is confirmed, for example, by the **percentage of consumers obtaining full redress**, which is **significantly lower for problems involving foreign rather than domestic sellers** (42.1% vs. 46.4%).

Table 5.9 Financial detriment by source of purchase

Source of purchase:	Price paid for product* USD (mean)	Pre-redress detriment USD (mean)	Post-redress detriment USD (mean)
Domestic	227.5	228.2	73.5
Abroad	229.7	214.0	58.9

Note: Q28; based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for.

The regression analysis, limiting the over proportional impact of extremely high values on the results, confirms these effects for *redress sufficiency*, which diminishes slightly, though statistically significant, from 60.8% for purchases from domestic sellers to 57.7% for purchases from foreign sellers (see Table A.F.7). This is linked, again, to the types of problems encountered in this case, which are significantly more likely to involve scams or be related to T&Cs or post-sales, cancellations or the price, most of which are associated with lower redress sufficiency overall. The regressions do not, however, confirm a significant difference in terms of relative detriment between transactions involving foreign or domestic sellers.

5.6. Detriment - by socio-economic characteristics

Looking into the data in detail shows that patterns of detriment vary across different types or groups of consumers.

For gender for instance, levels of detriment (both pre-redress and post-redress) are slightly higher among men than women (Table 5.10). But this appears to reflect the fact that men, on average, paid a higher price for the product (they were, for instance, twice as likely to have bought computer equipment, consumer electronics or appliances, one of the more expensive product categories). Nevertheless, considering *relative detriment*, defined at the individual level, still suggests that **men suffered relatively higher detriment than women, even after accounting for the higher prices they paid on average**. This is also confirmed by the regression analysis, which limits the impact of outliers, corrects for possible unobservable country differences and holds other socio-economic differences constant (e.g. effectively comparing women and men of the same age group and with the same income). In particular, this analysis suggests that men suffered (pre-redress) detriment that was on average 23% higher than the product value, compared to only 11% for women (Table A.F.3, Column 9). **While the average *redress sufficiency* was similar for men and for women, women were nevertheless slightly (though statistically significant) more likely to obtain sufficient redress to *fully* cover the detriment incurred** (48%, compared to 45% for men). This is also confirmed by the regression.

Table 5.10 Financial detriment by gender

Gender:	Price paid for product* USD (mean)	Pre-redress detriment USD (mean)	Post-redress detriment USD (mean)
Men	245.3	237.5	70.5
Women	203.2	198.2	67.2

Note: Based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices.

Significant differences are also apparent by age group. The global averages in Table 5.11, seem to suggest that i) young consumers (18-29 years) face relatively high pre-redress detriment compared to the price when compared to old consumers (65+ years), but ii) are also more successful in seeking redress as, despite facing higher pre-redress detriment on average, they end up with less post-redress detriment. For *relative detriment*, defined at the individual consumer level, these results are confirmed, with younger consumers facing higher (pre-redress) detriment compared to the price than older consumers on average (276%, <29; 254%, 30-65; 153%, 65+). However, in the case of *redress sufficiency*, the comparison of aggregate averages turns out to be slightly misleading and the results are less clear-cut then they seem:

- On the one hand, the percentage of consumers obtaining *full redress* is clearly *increasing* in age (e.g. 44% for age <29; 46% for age 30-65 and 52% for age 65+).
- On the other hand, the (continuous) *ratio* of redress over pre-redress detriment (*redress sufficiency*) would suggests that the middle age group (30-65, mean: 102%) obtained higher redress compared to the pre-redress detriment than both younger (<29, mean: 76%) and older consumers (65+, mean: 71%).

However, as discussed in Annex F, the latter result on the ratio is not statistically significant when accounting for a possible conflation of different socio-economic effects (e.g. that close to 60% of the oldest consumers are men), country differences (e.g. that redress sufficiency tends to be lower in countries with a large share of younger consumers, such as Mexico or Chile) and, importantly, limiting the impact of some exceptionally high values on the results (e.g. the fact that all five consumers with redress sufficiency rates over 10000% belong to the middle age group). In contrast, the findings for relative detriment (e.g. 127% at age 50 compared to 111% at age 25, see Table A.F.4) and full redress (e.g. 42% at age 25 compared to 47% at age 50), are confirmed, implying **overall higher detriment and lower redress sufficiency for younger consumers**.

Table 5.11 Financial detriment by age

Age group:	Price paid for product* USD (mean)	Pre-redress detriment USD (mean)	Redress USD (mean)	Post-redress detriment USD (mean)
18-29 yrs.	238.9	226.3	182.1	44.2
30-64 yrs.	220.8	218.9	140.5	78.4
65+ yrs.	210.8	190.3	112.8	77.5

Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices.

The average values in Table 5.12 seem to suggest that low income households faced relatively high post-redress detriment compared to the price paid and the pre-redress detriment suffered. For *redress sufficiency* defined at the individual consumer level, this is not confirmed, but only due to a handful of cases with very high *redress sufficiency* rates among the consumers with low income (e.g. over 10000% compared to a maximum of 3000% for high-income households). Accordingly, the percentage of consumers obtaining *full redress* is, if anything, also lower for consumers from low income households (44%) than for from mid- or high-income households (46% across both groups), in line with the results suggested in Table 5.12.

Table 5.12 Financial detriment by household income

Household income[34]	Price paid for product* USD (mean)	Pre-redress detriment USD (mean)	Redress USD (mean)	Post-redress detriment USD (mean)
Low	202.0	184.7	109.8	74.9
Medium	205.6	195.0	129.4	65.6
High	278.3	287.4	213.4	74.0

Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices.

The regression analysis confirms these results for a more general measure of economic distress, suggesting that **consumers facing difficulties to make ends meet** (which also captures income differences) **have both, a lower** (predicted) **redress sufficiency rate** (55.5% vs. 60.9% for consumers without difficulties to make ends meet, see Table A.F.7) **and a lower** (predicted) **probability to obtain full redress** (39.1% vs. 45.8%, see Table A.F.8). This is particularly worrisome, because any remaining post-redress detriment is likely to be more detrimental to consumers at the financial edge. The regressions further confirm that **consumers in economic distress face significantly higher detriment relative to the price when compared to consumers without difficulties to make ends meet** (127.3% vs. 113.9%, see Table A.F.4). These results are adjusted for the over-proportional impact of some extremely high redress sufficiency rates, other socio-economic differences (e.g. age or gender) and country specific effects, and they remain robust when accounting for other observable differences, including differences in e-commerce purchase patterns (e.g. typical amounts spent, purchase frequency or type of products purchased.

Table 5.13 further suggests lower *relative detriment* and higher *redress sufficiency* for consumers living in a city or small/medium-sized town, compared to those living in a rural area or village. The corresponding measures defined at the consumer level confirm this clearly for relative detriment (320% for rural consumers compared to 240% for others), but don't seem to suggest significant differences for redress sufficiency (93%). However, in line with the results in Table 5.13, the percentage of consumers obtaining *full redress* is indeed significantly lower for consumers in rural areas than for those in a small/medium-sized town or city (42% vs. 47%). The regression analysis confirms these results for *full redress* (41% vs. 45%) and also establishes a lower average *redress sufficiency* for consumers in rural areas, after accounting for actions taken by the consumer and other possible differences (56% vs. 61%, based on Columns 8 of Table A.F.6). The regressions further confirm the higher *relative detriment* for consumers in rural areas (134.6% vs. 115.3%, see Table A.F.4).

Table 5.13 Financial detriment by location of consumer

Location	Price paid for product* USD (mean)	Pre-redress detriment USD (mean)	Redress USD (mean)	Post-redress detriment USD (mean)
Rural area or village	217.8	222.4	135.5	86.9
Small town or city	225.9	217.9	151.7	66.2

Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices.

It is also useful to compare detriment and redress obtained by the consumers' attitudes (see Table 5.14). Some notable findings (supported also by the regression results in tables A.F.3 and A.F.6) include:

- **Consumers who buy primarily on the basis of price and delivery (rather than use sellers they know and trust) do experience higher levels of pre-redress detriment relative to the price paid**. However, differences in this attitude have no statistically significant effect on *redress sufficiency*, after accounting for the over-proportional impact of some extremely high values in the regression.
- **Consumers who consider themselves fundamentally more active in terms of seeking redress do actually obtain higher redress** relative to pre-redress detriment.[35]
- There is **no evidence to suggest that the majority of consumers (72%) that usually expect T&Cs to be acceptable, suffer disproportionately as a result in terms of (relative) pre-redress detriment**.
- **Consumers who make use of online reviews and other tools to assess the risk of a transaction** do not seem to suffer significantly more detriment, relative to the price paid, than other consumers. However, they **obtain significantly higher redress** compared to the (pre-redress) detriment suffered and are, accordingly, also more likely to obtain full-redress.

Table 5.14 Financial detriment by attitude

		Price paid for product* USD (mean)	Pre-redress detriment USD (mean)	Post-redress detriment USD (mean)
I usually purchase based on price and delivery	Agree	228.1	226.7	61.0
	Disagree	224.0	209.6	83.8
If faced with an unsatisfactory experience, I'll take all possible steps to get a better outcome	Agree	229.0	226.8	69.7
	Disagree	219.0	200.2	71.3
I usually expect the T&Cs will be acceptable, rather than read them	Agree	225.9	221.7	61.6
	Disagree	223.5	210.9	84.4
I usually read online reviews etc.to properly assess the risk of a purchase	Agree	225.4	222.8	67.2
	Disagree	233.3	209.9	80.4

Note: Q33; based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. The full question wording can be found in the questionnaire, in the Annexes. Agree = 'strongly agree' + 'tend to agree'; Disagree = 'strongly disagree' + 'tend to disagree'. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for.

When considering how these attitudes vary by consumers' socio-economic characteristics, it is further interesting to note that (see Table A.F.12 for more details):

- **Consumers in economic distress, men, consumers living in rural areas and younger consumers all are significantly more likely to choose who they purchase from based only on price and delivery conditions, rather than try to purchase from a seller they know and trust** – which may explain to some degree the higher relative detriment faced by these consumers.
- **Men and consumers in economic distress tend to be less likely to read all the available information** (e.g. online reviews, quality certificates) to properly assess the risk involved with an online purchase – which, in light of the findings just discussed, may partly explain their lower redress sufficiency.
- There are **no socio-economic differences with regard to the percentage of consumers that simply accepts terms and conditions**, rather than read them.
- **Older consumers tend to consider themselves significantly more likely to take all possible steps to achieve a better outcome or receive compensation** when faced with an unsatisfactory online consumer experience. However, when considering the actions actually taken by consumers in the context of their most serious problem, **older consumers turn out to be actually less active** when it comes to seeking redress (see below and Annex F), which – in the light of their higher overall redress-success seems to suggest that the actions they take tend to be more effective. Differences regarding this attitude are insignificant for other socio-economic groups.

It is further noteworthy that

- **Younger consumers, men, consumers in rural areas and consumers in economic distress are significantly more likely to encounter problems associated with higher pre-redress detriment or lower redress**, such as problems with the price, payment issues, scams or problems with T&Cs as well as cancellations (for rural consumers) (see Table. A.F.9).

- **Men, consumers in economic distress and those living in rural areas** do not seem to be significantly less likely to have taken any action at all. However, the **actions** they have taken are **often associated with significantly lower redress sufficiency**, such as purchasing a replacement or repairing the product at their own expense. This could suggest, for example, a lower willingness (or ability) to wait for the redress process to be finalised before resolving the problem on their own (see Table A.F.13).
- **Men, younger consumers and those in rural areas were also more likely to take relatively extreme actions**, such as taking the case to court or withholding payments, activities that may be associated with particularly problematic cases (ibid).

It is important to highlight, however, that significant differences in terms of redress sufficiency between different socio-economic groups remain even after accounting for the observed differences just discussed. This suggests that there is more at play under the surface, i.e. that even when reporting the same attitudes, facing the same problems and taking the same actions, some consumers are still systematically less successful in obtaining redress than others. This could be explained, for example, by unobserved differences in personal traits, such as lower persistence or digital literacy, or an e-commerce environment that is unfavourable to certain types of consumers, including malicious strategies that specifically target existing consumer vulnerabilities (e.g. dark patterns).

5.7. Aggregate detriment - by country

Below are estimates for the total pre- and post-redress detriment by country, based on data from this survey and other external sources (Table 5.15, Table 5.16). The full calculations for post-redress detriment are provided in the Annexes and are analogous for pre-redress detriment (see Annex G). Countries have been ranked on the basis of total detriment, resulting from individuals' most serious problem, as a % of total *Final Consumption Expenditures of Households* (i.e. total private consumption) from the National Accounts.

The findings for **pre-redress detriment** (Table 5.15) suggest that with 0.57%, 0.54% and 0.52%, respectively, Chile, Türkiye and Mexico faced the highest detriment, relative to the economic size of the country (measured in terms of total final household consumption expenditure). Japan and Canada ranked lowest in terms of total pre-redress detriment over total consumptions, which was driven, for Canada, by the low average magnitude of pre-redress detriment that consumers faced when encountering a problem and, for Japan, by both, the relatively low incidence of problems and the low magnitude of detriment.

Table 5.15. Aggregate pre-redress detriment by country

Country	Avg. pre-redress detriment (national currency)	Total population* experiencing problems (in millions)	Total pre-redress detriment (in millions, national currency)	Pre-redress detriment per capita (national currency)	Total pre-redress detriment (in millions USD/PPP)	Pre-redress detriment per capita (in USD/PPP)	Pre-redress detriment as % of Final Household Consumption
Chile	CLP 107 640.8	6.3	CLP 677 816.6	CLP 46 718.9	USD 1 610.0	USD 111	0.57%
Türkiye	TRY 720.3	21.3	TRY 15 371.6	TRY 264.3	USD 7 285.1	USD 125.3	0.54%
Mexico	MXN 2 405.4	31.7	MXN 76 136.4	MXN 893.1	USD 8 005.9	USD 93.9	0.52%
Australia	AUD 381.9	7.5	AUD 2 858.5	AUD 147.9	USD 1 957.9	USD 101.3	0.27%
Germany	EUR 192.9	21.8	EUR 4 202.3	EUR 60.4	USD 5 640.6	USD 81.1	0.25%
Norway	NOK 2 268.3	1.5	NOK 3 317.5	NOK 841.1	USD 356.7	USD 90.4	0.22%
Israel	ILS 608.7	2.5	ILS 1 532.0	ILS 258.2	USD 415.2	USD 70	0.22%
Korea	KRW 106 441.5	18.4	KRW 1 958 534.1	KRW 44 562.4	USD 2 253.8	USD 51.3	0.22%
Italy	EUR 127.8	15.8	EUR 2 017.6	EUR 40.0	USD 3 015.8	USD 59.8	0.21%
USA	USD 302.9	95.3	USD 28 869.6	USA 113.7	USD 28 869.6	USD 113.7	0.21%
Singapore	SGD 181.7	1.5	SGD 279.0	SGP 84.8	USD 317.1	USD 96.4	0.18%
Canada	CAD 145.6	10.5	CAD 1 530.1	CAD 51.3	USD 1 275.0	USD 42.7	0.12%
Japan	JPY 11 639.3	19.1	JPY 222 710.9	JPY 2 070.7	USD 2 162.2	USD 20.1	0.08%

Note: 'Total population experiencing problems' is the total number of individuals (18+) in a given country that has purchased online in the last 12 months and encountered at least one problem with an online purchase over the same period. This number is extrapolated, using the percentage of online shoppers that have experienced at least one problem (from the survey 'incidence' rate) in combination with nationally representative data on i) the percentage of the online population in a given country, ii) the percentage of online shoppers in the total online population in a given country, and iii) the percentage of individuals age 18+ in the population (see Annex G for details). Total detriment is average detriment multiplied by the total number of individuals having faced a problem in a given country. Detriment per capita is total detriment divided by the total population in a given country (including children and those not purchasing online or using the Internet). Final Household Consumption Expenditure data relates to 2020.
Source: See Annex G for details.

For **post-redress detriment** (Table 5.16), the findings change slightly, with Chile (0.26%) and now also Mexico (0.21%) surpassing Türkiye (0.12%) in terms of the highest detriment relatively to the economic size of the country. The reason is that consumers in Türkiye obtained relatively more redress, compared to the initial detriment suffered, than consumers in Mexico on average (see Figure 5.2). The country that ranked lowest in terms of total post-redress detriment relative to the economic size of the country is Australia. This is explained by the very low average magnitude of post-redress detriment, which, as discussed above (see Figure 5.2), is however partly the result of a small number of consumers who obtained very high redress. It should therefore be noted that Australia (but also Norway) would move slightly up in the ranking, and Korea would move down (i.e. lower detriment) when shifting the focus from the mean to the median of the sample.

Table 5.16. Aggregate post-redress detriment by country

Country	Avg. post-redress detriment (national currency)	Total population* experiencing problems (in millions)	Total post-redress detriment (in millions, national currency)	Post-redress detriment per capita (national currency)	Total post-redress detriment (in millions USD/PPP)	Post-redress detriment per capita (in USD/PPP)	Post-redress detriment as % of Final Household Consumption
Chile	CLP 49 179.7	6.3	CLP 309 685.4	CLP 21 345.2	USD 735.6	USD 50.7	0.26%
Mexico	MXN 995.2	31.7	MXN 31 499.4	MXN 369.5	USD 3312.2	USD 38.9	0.21%
Türkiye	TRY 156.1	21.3	TRY 3332.2	TRY 57.3	USD 15769.2	USD 27.1	0.12%
Germany	EUR 79.7	21.8	EUR 1 736.5	EUR 25.0	USD 2330.8	USD 33.5	0.10%
Israel	ILS 273.5	2.5	ISR 688.3	ILS 116.0	USD 186.5	USD 31.4	0.10%
Italy	EUR 52.5	15.8	EUR 827.9	EUR 16.4	USD 1237.6	USD 24.5	0.09%
Norway	NOK 740.4	1.5	NOK 1 082.9	NOK 274.6	USD 116.4	USD 29.5	0.07%
USA	USD 100.6	95.3	USD 9 586.1	USD 37.7	USD 9586.1	USD 37.7	0.07%
Korea	KRW 30 566.5	18.4	KRW 562 427.0	KRW 12 796.9	USD 647.2	USD 14.7	0.06%
Singapore	SGD 37.7	1.5	SGD 57.9	SGD 17.6	USD 65.8	USD 20.0	0.04%
Canada	CAD 38.6	10.5	CAD 405.5	CAD 13.6	USD 337.9	USD 11.3	0.03%
Japan	JPY 3 510.8	19.1	JPY 67 176.8	JPY 624.6	USD 652.2	USD 6.1	0.02%
Australia	AUD 30.7	7.5	AUD 229.4	AUD 11.9	USD 157.1	USD 8.1	0.02%

Note: 'Total population experiencing problems' is the total number of individuals (18+) in a given country that has purchased online in the last 12 months and encountered at least one problem with an online purchase over the same period. This number is extrapolated, using the percentage of online shoppers that have experienced at least one problem (from the survey 'incidence' rate) in combination with nationally representative data on i) the percentage of the online population in a given country, ii) the percentage of online shoppers in the total online population in a given country, and iii) the percentage of individuals age 18+ in the population. Total detriment is average detriment multiplied by the total number of individuals having faced a problem in a given country. Detriment per capita is total detriment divided by the total population in a given country (including children and those not purchasing online or using the Internet). Final Household Consumption Expenditure data relates to 2020.
Source: See Annex G for details.

To put these findings into context, it is important to remember that e-commerce accounts for only a small fraction of total household expenditure and, more broadly, GDP. For example, in Mexico e-commerce accounted for an estimated 5.8% of gross value added (INEGI, 2022[11]). Excluding wholesale transactions, which are not considered in the survey, this number is reduced to 4.4%, or MXN 1.02 trillion. Taking the latter number as benchmark suggests that the above estimate of total *pre-redress* detriment, accounted for around 7.5% of the total e-commerce value. Total *post-redress* detriment then accounted for 3.1%. For the US, available data suggests that in 2020 total e-commerce in retail and food sales accounted for USD 762.7 billion (USCB, 2022[12]). Compared to this benchmark, which should be considered a lower bound as it excludes e-commerce sales in other services, suggests that *pre-redress* detriment accounted for 3.8% and *post-redress* detriment for 1.3% of "total" e-commerce sales. For Japan, one of the countries with the lowest detriment among all countries surveyed, the numbers are even lower, though still significant. In particular, total B2C e-commerce was estimated to amount to 19.4 trillion yen in 2020 (METI, 2021[13]), which would imply that total *pre-redress* detriment accounted for around 1.2% of the total e-commerce value in this case, whereas total *post-redress* detriment accounted for 0.3%.

Additionally, the aggregate results can be used to approximate the total amount of post-redress detriment across *all* OECD countries, when assuming that the sample-median

(excluding Singapore) shares of pre-redress and post-redress detriment in total final household consumption (0.22% and 0.07%, respectively) are roughly representative for all OECD countries. Multiplying these with final household expenditure for the OECD aggregate (USD 30.9 trillion)[36] suggests that consumers in OECD countries in 2020 suffered total financial detriment of around USD 22.3 billion after accounting for redress (pre-redress detriment would be equal to USD 68.2 billion).[37] Importantly, these numbers still only account for the single most serious problem that consumers have faced and not for other, additional problems they may have faced. An extension, which provides hypothetical, country specific weighting factors to account for these additional problems is provided in Box 5.2.

Box 5.2. Extension: Approximating additional detriment due to secondary and tertiary problems

The estimates presented in this report are lower-bound estimates of total financial (pre- and post-redress) detriment suffered by consumers in e-commerce because i) they do not account for possible financial detriment associated with the value of time lost due to the problem (see next section), and ii) "total aggregate detriment per country", here only considers detriment resulting from a single problematic transaction per consumer - namely the most serious one. Many consumers are however likely to have faced several problems per year. In particular, the survey results (Q5, Q6) suggest that in addition to the problem category in which they encountered the most serious problem, consumers faced problems in 1.4 additional product categories on average. Furthermore, within each product category, it is possible that some consumers faced more than one problem, a dimension that is not addressed by the survey.

While the survey did not assess these additional problems in detail, they would in principle add to the amount of total detriment suffered. To obtain at least a rough idea of the additional amount, consider the following (hypothetical) back-of-the-envelope approximation. In particular, assume that:

- Consumers faced on average only a single problematic transaction per each additional problematic product category (i.e. lower bound assumption).
- By definition, problems in each additional product category (i.e. not the one causing the most serious problem) represent at least zero and at most an equal amount of detriment that was caused by the most serious problem. Assume for simplicity therefore that each additional problem caused 50% (as a practical half-way point between the minimum and the maximum) of the detriment that was caused by the most serious problem.

Together, these two assumptions allow to approximate, for each country, a specific factor that can be multiplied to the total detriment numbers detailed above in order to obtain a rough estimate of total detriment suffered by consumers when also accounting for secondary and, if applicable, tertiary problems. On average, i.e. across countries, the applicable multiplier is 1.7 and the same holds for the median. These factors can be applied to both, to the magnitude of detriment in absolute terms (e.g. in USD) as well as the relative measures, such as the percentage of detriment in total consumer expenditure or in total e-commerce. Naturally, the assumption regarding the relative gravity of secondary or tertiary problems (here: 50%) could be adjusted should more fine-grained data become available in the future.

Table 5.17. Accounting for secondary and tertiary problems: hypothetical multiplying factors

	Chile	Mexico	Türkiye	Germany	Israel	USA	Italy	Norway	Korea	Singapore	Canada	Australia	Japan
Problematic product categories per consumer (Q)	2.4	2.6	2.9	2.4	1.9	2.8	2.3	2.2	2.4	2.4	2.0	2.5	1.9
Additional product categories (Q-1)	1.4	1.6	1.9	1.4	0.9	1.8	1.3	1.2	1.4	1.4	1.0	1.5	0.9
Multiplying factor (1+ 0.5*(Q-1))	1.7	1.8	1.95	1.7	1.45	1.9	1.65	1.6	1.7	1.7	1.5	1.75	1.45

Note: The first row shows the average number of problematic purchase categories per country, i.e. product categories in which consumers faced at least one problematic transaction (including their most serious problematic transaction). It is based on the survey data. The third row is a hypothetical derivation, assuming that i) consumers faced only one problematic purchase for each product category and ii) secondary or tertiary problems were half as detrimental as the most serious problem.
Source: Q5+Q6: based on all consumers purchasing online in last 12 months (27 124).

6. What happens after problems occur?

6.1. What actions do consumer typically take?

It is clear from the data that the vast majority of consumers are active in the face of encountering a problem. While the actions taken vary – and of course will often depend on the nature of the problem – only 9% reported that they had not taken any action (Table 6.1).

Table 6.1 Action taken by consumers as a result of the problem

	% of respondents
Made a complaint to the seller, provider or delivery company	37
Asked the seller or provider for repair, replacement or refund	25
Cancelled the purchase of the good or service within the time allowed	23
Returned the good or terminated the service	22
Purchased a replacement good or service or repaired it at my own expense	12
Left a review, rating or comment online	11
Asked the seller/provider for a compensation for damages and losses	10
Withheld payment for the good or service	8
Made a complaint to a government body or public consumer organisation	7
Made a complaint to a private consumer organisation or association	6
Taken the case to court or to a lawyer	3
Engaged in an out-of-court dispute settlement / alternative dispute resolution mechanism	2
Have not taken any action	9

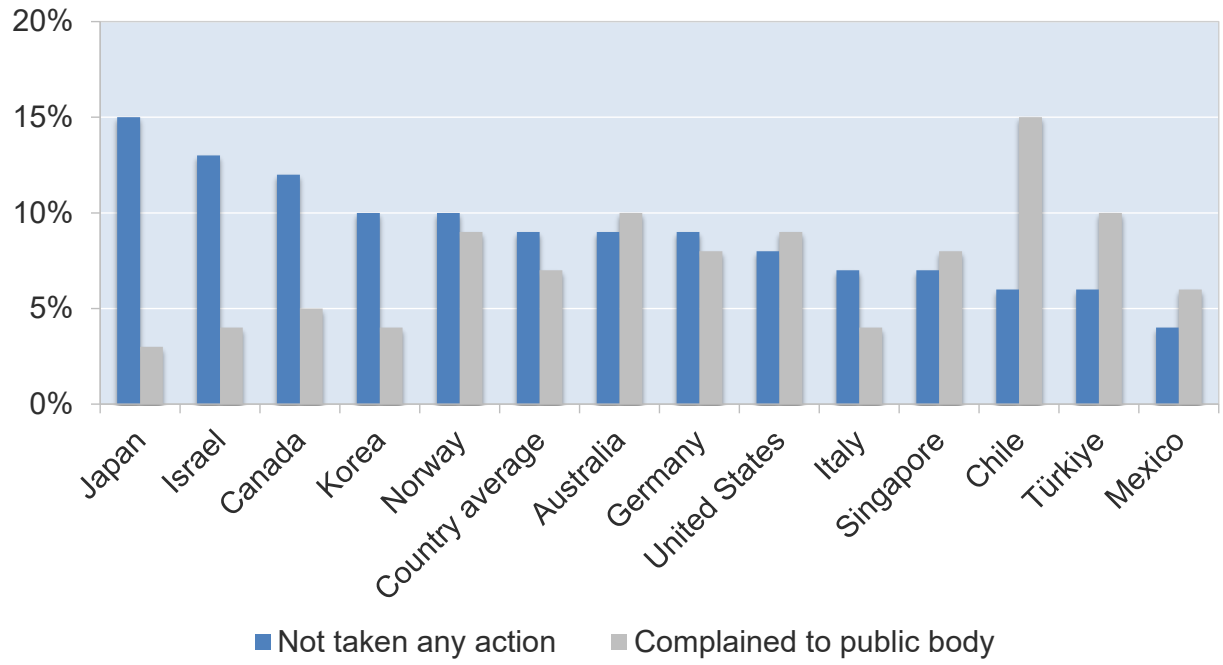
Note: Q13; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced. Respondents could select multiple answers.

Considering likely actions by country shows that consumers behave relatively similarly across countries, with complaints to the seller/provider the most common action (37%), followed by requests for repairs/refunds (25%), cancellations (23%) and product returns (22%).

Figure 6.1 outlines cross-country differences for two consumer responses that may be of particular interest to policy makers, namely the percentage of consumers i) not taking any action at all, and ii) involving a government authority. As can be seen, across all the countries, Japan stands out as the country with the highest percentage of consumers reporting that they had taken no action (15%), followed by Israel and Canada. In

comparison, 'complained to a Government or public body' is lowest for Japan, but rises to 15% for Chile.

Figure 6.1. Action taken by consumers, by country



Note: Q13; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

Some other noteworthy differences include:

- The percentage of consumers that cancelled the purchase or returned the product was significantly higher in Türkiye (34%), compared to a cross-country average of 23% for cancellations and 22% for returns, respectively.
- Consumers in Chile (47%), Israel (46%) and Singapore (44%) were most likely to make a complaint to the seller, compared to a cross-country average of 37% and a minimum of 27% in Japan and 28% in Türkiye.
- Consumers in Germany were most likely (13%) and in Israel least likely (2%) to withhold payments (average: 8%).
- Overall, only a few consumers took their case to court or involved a lawyer, with an average percentage of 3%, a minimum of 1% in Israel and a maximum of 4% in Türkiye and the USA.
- Consumers were also not very likely to engage in out-of-court settlements, with an average percentage of 2%, a minimum of 1% in Italy and Israel and slightly higher values in Germany (3%), the US (4%) and Türkiye (5%).

The type of actions taken by consumers is dependent on the level of detriment they faced. Table 6.2 shows mean (pre-redress) detriment for four groups of consumers: i) those that did not take any action, ii) those that took some action but did not involve a third party to resolve their problem, iii) those that made a complaint with a public or private consumer authority, and iv) those that took the case to court or a lawyer or engaged in an out-of-court

settlement mechanism (potentially in addition to other activities). The results clearly show that consumers that faced high levels of pre-redress detriment where more likely to involve third parties during the problem resolution.

Table 6.2. Pre-redress detriment and the type of action taken

	No Action taken	Action taken – not including third parties	Action taken – including third parties (only complaints)	Action taken – including court or out of court dispute settlement
Magnitude of pre-redress detriment (mean, in USD PPP)	99.3	201.7	325.7	494.0
Magnitude of pre-redress detriment (median, in USD PPP)	15.9	55.2	116.8	138.6
Number of consumers	796	7863	996	457

Note: Q13; based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. The first category of "Actions taken – including third parties" includes consumers that complained to a government body, public or private consumer organisation but excludes consumers that have taken the case to court or engaged in an out-of-court dispute settlement mechanism. The second category includes all consumers that have taken the case to court or engaged in an out-of-court dispute settlement mechanism besides, potentially, having taken other actions. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices.

The regression analysis (A.F.6) provides more insights on the correlations between the actions taken and redress sufficiency, after accounting for differences in country characteristics or problems encountered. Maybe not surprisingly, redress sufficiency was particularly high if the consumer was able to return the product or cancel the purchase within the allowed time. Consumers that asked the seller for a repair, replacement or refund also had higher chances to get their problem resolved. On the other hand, purchasing a replacement on their own account, leaving a review or making a complaint with a government authority or public consumer organisation were associated with significantly lower redress sufficiency.

While the first of these cases (purchase on own account) seems self-explanatory, the case of reviews or complaints with a government authority require more explanation:

- The finding for reviews likely indicates the role of reviews as a means to respond to unsatisfactory experiences with regard to the problem resolution. In fact, when comparing how satisfied consumers were with the outcome of the resolution process (see below), only 68% of consumers leaving a review were at least fairly satisfied with the outcome of the problem resolution, compared to 76% across all consumers.
- The findings for complaints with a government authority may be explained by both, the complexity of problems encountered and the duration of resolutions process: In particular, involving the government typically was associated with more complex problems (on average 3.7 different problem types, compared to an average of 2.2). Additionally, and maybe as a consequence, the process took longer to be resolved. Thus, only 76% of consumers that complained with a government had their problem resolved in less than a month, compared to 84% overall. In line with this, the percentage of consumers that felt their problem was (at least partially) resolved at the time of the survey was also significantly lower for consumers that involved the government (61% compared to 68% overall), implying that the redress process was likely to be still ongoing. However, importantly, consumers who complained with the government and saw their problem at least partially resolved

were roughly equally satisfied with the outcome than those who did not (77% vs. 76%).

6.1.1. By product and type of purchase

Overall, the frequency of actions taken were ranked similarly irrespective of whether purchases involved domestic sellers or those from abroad. However, purchases involving foreign sellers were significantly less likely to be cancelled within the allowed time (20% vs. 24% for domestic sellers) or returned to the seller (19% vs. 24%). Interestingly, and confirmed by the regression analysis, consumers encountering a problem with a foreign seller where also slightly, though statistically significantly more likely to engage in an out of court settlement (3% vs. 2%) (see Table A.F.13).

For subscription purchases and those that consumers causally linked to the COVID-19 crises, they were significantly more likely to take action in general. In particular, the percentage of consumers that withheld payments (from around 6% to 15% in both cases), made a complaint to a government body (from around 6% to 13% in both cases) or private consumer authority (from around 4%-5% to 11%) more than doubled. Similarly, the percentage of consumers bringing their case to court or engaging in an out-of-court settlement also more than doubled (from around 2% to 5%-6% in both cases), suggesting a more difficult conflict resolution for both COVID-19 related problems and subscriptions.

The profile of actions taken does also vary by product category, but the differences are limited, with few if any underlying themes (Table 6.3). For instance:

- Making a complaint to the seller is the most common action in every product category except two – entertainment events and finance products – but in those cases consumers are also more likely to have cancelled the purchase within the time allowed.
- The likelihood of making a complaint to the seller, provider or delivery company is also higher than the average in two categories – food, beverages and groceries; and telecommunication services (42% and 43% vs. average of 37%).
- Leaving a review, comment or rating online was least likely for medicines; bicycles, cars etc.; and electricity and gas (8% each), but markedly more common for rideshare services (18%).
- The percentage of consumers who have taken no action at all was particularly high for personal care products, medicine and entertainment services.

6.1.2. By type of problem

When considering how consumer action varies according to the nature of the problem, it seems noteworthy that although contacting a government or public body remains a limited resort in most cases, it does peak at 18% for problems arising from scams, counterfeit goods or fraud and 16% for problems with contract T&Cs. In addition, the proportion of consumers taking legal action is only 3% overall, but rises to 8% for scams, counterfeit goods and fraud. Apart from this, the differences are relatively limited, suggesting that consumers largely tend to use the same playbook for most problems.

Table 6.3 Consumer actions by problem category

	Made a complaint to the seller, provider or delivery company (in %)	Made a complaint to a government body or public consumer organisation (in %)	Have not taken any action (in %)
Total	37	7	9
Nature of problem:			
Problems with goods or services received	38	8	7
Problems with delivery of provision of goods or services	43	9	8
Problems with cancelling order of product returns	34	12	4
Problems with complaint handling, compensation, warranty or guarantee	40	14	4
Problems with price or tariff (including cost of delivery)	33	14	6
Problems with payments, invoicing or billing	34	14	5
Problems with scams, counterfeit goods or fraud	35	18	4
Problems with contract Terms and Conditions	32	16	4

Note: Q13; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced. Individual category figures will not 'average out' to the Total figure as respondents could select more than one problem category, and therefore can be 'double-counted'.

6.1.3. By socio-economic characteristics

The survey also allows to assess whether actions taken varied with socio-economic characteristics. The data suggests that, at least in terms of willingness to take action, there are some small, though noteworthy, differences.

In particular, consumers with low education most frequently took no action at all (12%) compared to an average of 8% for those with high education (Table 6.4). The share of consumers taking no action at all was also higher for older consumers (Table 6.5). Both findings are confirmed in the regression analysis, which accounts for possible underlying country differences, differences in individual purchase patterns (e.g. product value, purchase frequency, types of products purchased) and the types of product purchased (Table E.A.13).

Table 6.4 Consumer action by household income and education

	Household income			Educational attainment		
	Low %	Med %	High %	Low %	Med %	High %
Made a complaint to the seller, provider or delivery company	34	38	39	30	37	39
Asked the seller/provider for a compensation for damages and losses	10	11	10	11	9	11
I have not taken any action	11	9	9	12	10	8

Note: Q13; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

The differences are less pronounced for income. A regression analysis shows that the differences apparent in Table 6.4, particular regarding complaints to the seller, provider or delivery company, mostly disappear when accounting for country specific effects and differences in individual purchase patterns.[38] However, it also suggests that consumers in economic distress more generally (considering also the subjective ability to make ends meet) were more likely to make a complaint to a government authority, an action that seems particularly relevant when problems become more complex. They were also more likely to purchase a replacement product on their own account, a result which the regression analysis also confirms for men, younger consumers and those living in rural areas. This could suggest a lower willingness (or ability) for those consumers to wait until for the redress process to be finalised.

An interesting pattern is apparent across age groups, with the data suggesting that although older consumers are more likely to complain to the seller/provider, younger consumers are more likely to take further action such as ask for compensation or withhold payment (Table 6.5). This is also confirmed in the regression analysis for several other actions taken.

Table 6.5 Consumer action by age group

	18-29 years %	30-64 years %	65+ years %
Made a complaint to the seller, provider or delivery company	34	38	44
Asked the seller/provider for a compensation for damages and losses	12	10	6
Left a review, comment or rating online	12	11	9
Withheld payment for the good or service	9	8	5
I have not taken any action	8	9	13

Note: Q13; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

These results are again confirmed in the regression analysis, which also suggests that consumers living in rural areas are significantly more likely to bring their case to court (4% vs. 2%) or to withhold payments (11% vs. 8%), and significantly less likely to leave a

review (6% vs. 12%) or ask the seller for a replacement, repair or refund (22% vs. 25%), suggesting slightly more drastic responses to problems overall.[39]

Finally, and as previously discussed, the survey asked consumers about their overall *attitude* to taking action (as part of a series of attitudinal questions). The results in Table 6.6 suggest that those who consider themselves proactive consumers do seem to act accordingly, although the differences are maybe not as significant as one might expect given the difference in stated attitude.

Table 6.6 Consumer action by consumer attitude

Response to statement: ***If I'm faced with an unsatisfactory online experience I will take all possible steps to achieve a better outcome****	**Agree %**	**Disagree %**
Made a complaint to the seller, provider or delivery company	40	30
Asked the seller or provider for repair, replacement or a refund	27	19
Cancelled the purchase of the good or service within the time allowed	23	19
Asked the seller/provider for a compensation for damages and losses	11	10
Left a review, comment or rating online	11	11
Withheld payment for the good or service	8	10
Made a complaint to a government body or public consumer organisation	7	8
I have not taken any action	7	15

Note: Q13; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced. * Full statement wording: *If I'm faced with an unsatisfactory online consumer experience I will take all possible steps to achieve a better outcome or receive compensation, rather than just accept it and put up with it*.

6.2. Reasons for inaction

A mix of internal/personal reasons as well as external/seller provider-related reasons have been reported by the respondents for not taking any action. The top five reasons given were:

- I don't like confrontation 28%
- I was unlikely to get a satisfactory solution 21%
- The seller/provider fixed the problem 19%
- The sums involved were too small to bother 15%
- I thought taking action would take too long 12%

Note: Q14; based on all consumers not taking any action (1 140).

Overall the sample sizes for each individual country were too small to allow most comparisons. However, statistically significant differences *were* apparent in terms of the proportion citing that they disliked confrontation, which ranged from 44% for Japan to 5% for Chile.

6.3. Actions taken by sellers/providers

Consumers reported that seller/providers took a range of different responses to consumers experiencing problems.

Table 6.7. Actions taken by sellers/providers

Seller/provider's response to problem:	%
Acknowledged or agreed there is a problem	30
Investigated the problem	22
Given a partial or full refund	22
Given an explanation I am happy with	22
Given an explanation I am **un**happy with	20
Provided a new/replaced the good or service	15
Fixed or repaired the good or service	14
Given a credit note or voucher to use on other goods or services	6
Given additional compensation for damages or losses incurred	3
None of the above	15

Note: Q19; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

However, among this mix are 20% of consumers who report that they were unhappy with the explanation they received from the seller. The proportion of consumers who received a response they were unhappy with was even higher for flights, train and car rental etc., (30%), accommodation rental (26%) and telecommunication services (25%). As discussed earlier, these were product categories where problems were frequently associated with the COVID-19 crisis (in the case of the former two) or subscriptions (the latter), all of which are typically associated with lower redress sufficiency. Lower redress sufficiency was also directly confirmed for flights train and car rental etc. and telecommunication services earlier (see Section 5.4), though not for accommodation services. Nevertheless, in absolute terms post-redress detriment was still very high on average for accommodation sectors (USD 109 compared to USD 69 across all product categories), which could explain the higher share of consumers that were unhappy with the problem resolution.

6.4. The extent of problem resolution

A majority of consumers felt they had achieved at least some form of resolution of their problem – 50% fully resolved and 17% at least partially (Table 6.8). Another 12% of consumers are currently still waiting for a response (including 6% who have received a first response that an investigation is currently ongoing). More critical however is the fact that around 17% of consumers i) either gave up before the problem was resolved (12%) or ii) were so unsatisfied with the response they obtained that they will continue with their complaint (5%). This percentage of "dissatisfied" consumers was significantly higher for consumers that had encountered their problems in the context of the purchase of a flight, train trip or car rental etc. (27%).[40]

Table 6.8 Resolution of consumers' problems

Extent to which problem has been resolved:	%
Fully resolved	50
Partially resolved	17
Not yet resolved but I was informed that an investigation is ongoing	6
Not yet resolved and I have not received any response	6
Not yet resolved and I am continuing with my complaint because the response I obtained was not satisfactory	5
Not resolved and I decided not to do anything more about it	12
Don't know	4

Note: Q21; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

Also of note is the fact that while the 12% who choose not to pursue problems is the average across all product categories, the number rises to 20% for rideshare services, likely reflecting the relatively inexpensive nature of most of these purchases.

Consumers that in the context of this survey were found to be less successful in obtaining redress on average (e.g. consumers in economic distress), but also consumers with low education, are less likely to feel they have achieved full resolution of the problem, with the proportion feeling they have achieved full resolution lower among low income households than high (43% vs. 55%), among those with low educational attainment than high (46% vs 52%), and among those who have great difficulty making ends meet compared to those who find it easy (47% vs. 59%).

6.5. Problem Duration

The data show that 60% of problems that have been fully or partially resolved according to the consumer, were on average resolved within a week, and a further 25% or so within a month (Table 6.9). Only 5% of problems took more than 3 months to be resolved. If the consumer had purchased from a specialised retailer who operates online and offline, problems where slightly less likely to be resolved within 24 hours, but slightly more likely to be resolved between a week and 3 months. However, overall there were few fundamental differences when looking at the data by type of business.

Table 6.9 Duration of the problem by type of business

	Total	Specialised – online %	Specialised - online & offline %	General retailer - online only %	General retailer - online & offline %	A business via online market %	Peer-to-peer online platform %	via social media/ messaging app %
Less than 24 hours	21	29	16	17	23	15	25	23
1 day to less than a week	39	36	39	41	35	44	41	39
1 week to less than a month	25	20	28	28	25	28	24	21
1 month to less than 3 months	10	10	12	10	12	9	7	10
3 months to less than 6 months	3	3	3	2	3	3	3	3
6 months or more	2	2	2	1	1	0	0	2
Don't know	1	1	1	1	1	0	1	3

Note: Q22; based on all consumers whose problem had been resolved (8 638)

Within these figures there are few significant differences by product sector, with one exception. Among those whose problem purchase was a flight, train trip or car rental etc., problems consistently take longer to resolve. For instance, among those whose problem has been resolved, 22% took over 3 months vs. 5% average for all sectors, and among those problems which are still being dealt with, 51% have already taken over 3 months vs. 26% for all sectors.

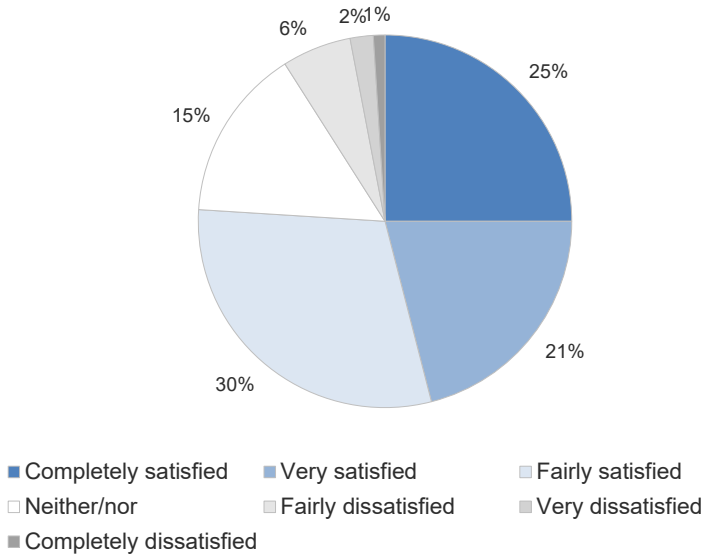
Problem durations are fairly consistent across countries with two exceptions – in Korea problems are resolved exceptionally quickly (e.g. 76% of problems that are resolved are resolved within a week, vs. 60% on average), and in Chile exceptionally slower (46% vs 60%). These results are confirmed in a regression analysis (not shown), which accounts for differences in the type of product purchased in different countries as well as the type of problems encountered, suggesting that idiosyncratic country effects (e.g. differences in regulation) are likely at play.[41]

6.6. Satisfaction with resolution outcomes

Consumers whose problem was either partly or fully resolved (67%, see above) were asked how satisfied they were with the problem resolution. The survey suggests a clear majority of these consumers was (at least "fairly") satisfied with the outcome (76%) (Figure 6.2). However, around one in ten expressed dissatisfaction with the outcome of the resolution. To this though can potentially be added a further 7% who have continued with their complaint because they were not happy with the response initially provided (they are not

included in the data below because although the problem was resolved according to the seller/provider, the consumer did not.

Figure 6.2. Satisfaction with resolution of problem



Note: Q25; based on all consumers whose problem was fully/partially resolved (8 585)

This balance – of around eight in ten satisfied and around one in ten dissatisfied – holds more or less true for all countries with the exception of Norway (68% vs. 13%) and Israel (66% vs. 15%), where overall satisfaction with the achieved resolutions is slightly lower and dissatisfaction higher. One further exception is Korea, where satisfaction levels are also lower than average (52%), but primarily because more consumers say they are 'neither satisfied nor dissatisfied' than elsewhere (37%).

Perhaps more interesting variations are evident across product categories. The overall pattern (76% satisfied, 9% dissatisfied) remains generally true except among purchases of rideshare services, where satisfaction was higher (85%), and again among flight, train trip and car rentals, where only 66% were satisfied with the outcome and as many as 19% were dissatisfied.

Elsewhere, there were few, if any, notable differences, other than a minor pattern by price paid for the product, where those purchasing more expensive items were slightly less satisfied with the outcome they achieved (71% vs. 14% dissatisfied) than those purchasing less expensive products (78% vs. 8%).

7. Non-financial detriment of problematic purchases

7.1. Time consumers lost resolving their most serious problems

Consumers have lost on average 5 hours resolving problems, although for the median consumer, this value was much lower, at between 1-2 hours (Table 7.1).[42] For a minority of consumers, it appeared relatively easy to resolve, or at least not worth spending further time trying to – 7% spent no time on it and 22% spent under an hour on the issue. However,

almost as many (24%) claimed that they spent over half a day (5 hours+) trying to resolve their problem.

As might be expected, the biggest differences in time spent are evident across levels of price paid for the purchase – the bigger the financial investment in the product the more worthwhile it is for the consumer to try to resolve any subsequent problem.

Table 7.1 Time spent by consumers to resolve problems

		Price paid for purchase		
Time lost as a result of the problem:	**Total %**	**Low %**	**Medium %**	**High %**
I've spent no time on it	7	7	5	3
Less than an hour	22	29	20	10
1 to 2 hours	24	27	25	20
3 to 4 hours	20	17	22	26
5 to 10 hours	10	8	10	16
11 to 20 hours	4	3	4	6
20 or more hours	10	7	11	17
Mean hours lost	5.1	4.1	5.4	7.7

Note: Q15; based on all consumers experiencing problems (12 693 and 10 112). Low: USD 0-49 (local currency equivalent, adjusted for PPP); Medium: USD 50-199; High: USD 200 or more.

Considering the data by country and product type shows a number of differences. Time lost is highest in Chile and Türkiye (7 hours or more in each on average) and lowest in Canada, Israel and Japan (less than 4 hours on average).[43] By product type, **time lost is highest for flights, train travel and car rentals**, as one might expect given the average value of the purchases and the context of the pandemic, but also for telecommunication services, which is highlighted elsewhere in the survey as a slightly more problematical product category (see Table 5.7).

Table 7.2 Average time lost as a result of the problem, by country and product type

Country	Mean hours lost	Product Category	Mean hours lost
Country average (13)	5.1	Country average (13)	5.1
Chile	8.4	Flights, train, car rental etc.	7.1
Türkiye	7.6	Telecommunication services	7.0
Korea	5.9	Bicycles, cars etc.	6.7
Mexico	5.8	Electricity, gas etc.	6.5
Singapore	5.5	Finance products	6.4
USA	4.8	Computers, electronics, appliances	6.3
Norway	4.6	Furniture, home, gardening	5.5
Italy	4.5	Accommodation rental including hotels	5.5
Australia	4.4	Digital media	5.5
Germany	4.3	Entertainment events	5.5
Japan	3.9	Household services	5.3
Israel	3.7	Personal care products	5.2
Canada	3.5	Clothing, footwear, sporting goods	4.6
		Medicine	4.3
		Printed media, CDs	4.2
		Rideshare services	3.7
		Food, beverages, groceries	3.6

Note: Q15; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

Consumers who find it most difficult to make ends meet lost slightly more time on average due to the problem than those who find it easiest to make ends meet – 5.6 hours vs. 4.7 hours on average.[44] There is also a pattern evident by age, with the proportion losing no time or less than an hour on the problem rising from 26% among 18-29 year olds, through 29% for 30-64 year olds to 38% for those aged 65+.

It would also seem that routes for resolution are less efficient when purchasing via social media or messaging apps – time lost was higher on average, at 7 hours.

Box 7.1. Extension: Monetisation of time loss

To put detriment resulting from time loss into perspective with the previously discussed *financial post-redress detriment*, monetary values can be assigned to the time consumers lost due to their most serious problem. As the actual value that individual consumers attach to lost time is unknown and can vary significantly from consumer to consumer, previous studies have relied on wage rates to obtain a comparable measure of the *opportunity costs of lost earnings* ***(EC, 2017[5])***.

Table 7.3 shows that adding the monetary value of time loss, evaluated at average hourly wage rates, increases financial post-redress detriment per consumer by between 50% (Mexico) and 746% (Australia) beyond the original value of *post-redress detriment* (compare Table 5.16). Using minimum wages instead of average wages as a more conservative measure of the value of time, the corresponding increase is between 9% (Mexico) and 282% (Australia). The *median* increase across countries amounts to, respectively, 67%, using minimum wages, and 186%, using average wages.

Using this sample median increase in post-redress detriment as a benchmark,[45] further allows to extrapolate the additional detriment due to time loss to all OECD countries. Starting with the previously approximated value of post-redress detriment (excluding time loss) for the OECD total (USD 22.3 billion, see Section 5.7), the resulting *new* level of post-redress detriment (including time loss) reaches USD 37.2 billion (minim wages) or USD 63.8 billion (average wages), respectively – still only accounting for consumers' single most serious problem.

Table 7.3. Additional financial detriment due to time loss

Country	Avg. post-redress detriment (national currency)	Avg. time lost per consumer (in hours)	Hourly minimum wage (national currency)	Hourly avg. wage (national currency)	Monetary value of avg. time loss (avg. time lost x hourly min. wage)	Monetary value of avg. time loss (avg. time lost x hourly avg. wage)	Monetary value of avg. time loss (min. wage) relative to avg. post-redress detriment	Monetary value of avg. time loss (avg. wage) relative to avg. post-redress detriment
Australia	AUD 30.65	4.4	AUD 19.67	AUD 51.97	AUD 86.56	AUD 228.72	282%	746%
Canada	CAD 38.60	3.5	CAD 13.66	CAD 43.95	CAD 48.22	CAD 155.17	125%	402%
Chile	CLP 49179.65	8.4	CLP 1622.47	CLP 7029.57	CLP 13587.38	CLP 58869.29	28%	120%
Germany	EUR 79.69	4.3	EUR 9.35	EUR 31.98	EUR 40.13	EUR 137.28	50%	172%
Israel	ILS 273.49	3.7	ILS 28.49	ILS 90.62	ILS 105.00	ILS 333.99	38%	122%
Italy	EUR 52.45	4.5	N/A	EUR 17.96	N/A	EUR 81.68	N/A	156%
Japan	JPY 3510.80	3.9	JPY 901	JPY 2750.47	JPY 3543.69	JPY 10817.78	101%	308%
Korea	KRW 30566.52	5.9	KRW 8590	KRW 21606.73	KRW 50281.26	KRW 126474.21	164%	414%
Mexico	MXN 995.19	5.8	MXN 15.40	MXN 84.73	MXN 89.77	MXN 493.84	9%	50%
Norway	NOK 740.39	4.6	N/A	NOK 433.02	N/A	NOK 1993.52	N/A	269%
Singapore	SGD 37.74	5.5	N/A	N/A	N/A	N/A	N/A	N/A
Türkiye	TRY 156.13	7.6	TRY 16.93	N/A	TRY 129.05	N/A	83%	N/A
United States	USD 100.57	4.8	USD 7.25	USD 39.27	USD 34.51	USD 186.95	34%	186%

Note: Average wages are approximated by dividing *average annual wages* by *annual hours actually worked*. Average wage data was not available for Singapore and Türkiye. Minimum wages at current prices

in national currency units are taken directly from the OECD Employment and Labour Market Statistics. Minimum wage data was not available for Italy, Norway and Singapore.
Source: OECD Employment and Labour Market Statistics: (OECD, 2022[14]); (OECD, 2022[15]), (OECD, 2022[16]).

7.2. Emotional distress

The final element of consumer detriment explored in the research was the emotional distress caused by the problem purchase. Although a majority of consumers did not feel especially stressed over the issue, approximately two in five (37%) either suffered 'quite a lot' or were 'extremely' emotionally stressed as a result of the problem (defined as angered, frustrated or worried) (Table 7.4).

As was the case with time lost to the problem, there is a distinct pattern of the level of emotional stress being related to the amount spent on the purchase.

Table 7.4 Emotional distress caused by problem

		Price paid for purchase		
	Total	Low	Medium	High
Extent of emotional stress:	%	%	%	%
Extremely	13	8	14	20
Quite a lot	25	19	25	31
Moderately	43	45	44	39
Not at all or only a little	18	26	17	10
Combined extremely/quite a lot	37	28	39	51

Note: Q16; based on all consumers experiencing problems (12 693 and 10 112). Low: USD 0-49 (local currency equivalent, adjusted for PPP); Medium: USD 50-199; High: USD 200 or more.

As might also be expected, the level of emotional stress is similarly related to the ease with which consumers feel they can make ends meet – 43% of those who find it most difficulty making ends meet experienced quite a lot or extreme stress, compared to 35% of those who make ends meet easily.

8. The role of trust

8.1. Trust in the online seller

A majority of consumers who had encountered at least one problem in e-commerce over the last 12 months trusted the specific online seller that was involved in the problematic transaction. Three in four (77%) said they completely or mostly trusted it, with 19% saying they only partly trusted it, or not at all.

As is also referred to later in this section, younger consumers are more willing to take a risk, with 24% saying they did not trust, or only partly trusted the online seller, compared to only half as many (12%) of 65+ online consumers. While they all had reasons for overriding such doubts, it is possible that their (relative) risk-taking attitudes contributed to the higher frequency with which younger consumers experienced problems in their online purchases.

Other important differences are also apparent in the data, as Table 8.1 shows.

Table 8.1 Consumer trust in seller/providers

	Completely/ mostly trusted it %	Only partly/ not at all %
Most trusted product categories:		
Flights, train, car rental etc.	80	16
Accommodation rentals and hotels	79	17
Food, beverages, groceries	79	17
Least trusted product categories:		
Household services	70	25
Bicycles, cars etc.	72	25
Electricity, gas etc.	72	25
Source of purchase:		
Domestic	82	16
Abroad	69	28

Note: Q30; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

While some sectors were generally well-regarded, other sectors were less so, most notably household services and bicycles, cars, etc. – both also a relatively common source of detriment relative to their low frequency of purchases.

There is also an apparent 'trust gap' between domestic seller/providers and those from abroad, with trust levels notably higher for domestic purchases.

Similarly, differences are noticeable across different retailer types. While trust levels are overall positive across all categories, they peak for specialised retailers, both online only (83% trusted them) and online and offline (85%). In contrast, they are lowest for purchases via social media or messaging apps, where only 63% trusted the seller, and 35% only partly trusted them or not at all.

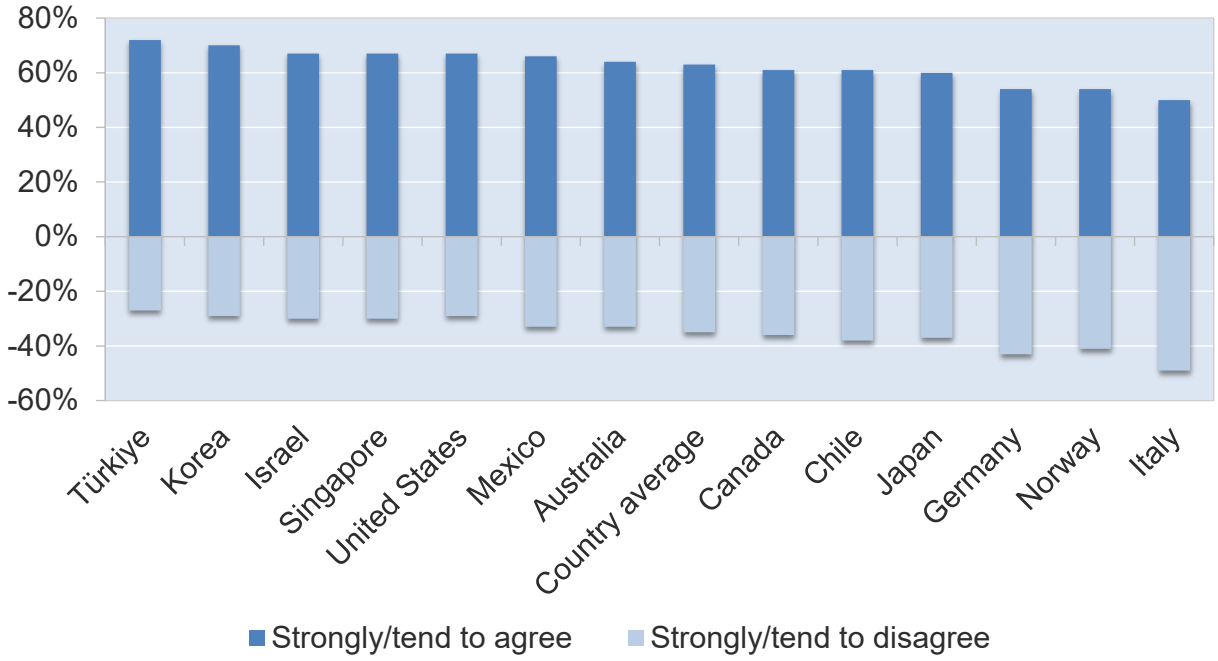
The reasons given for circumventing any trust concerns with regard to the seller/provider are varied, but to a large extent boil down to two things – time and money. When asked

why they still proceeded with a purchase even though they did not fully trust the seller/provider: 38% said the good or service was cheaper than anywhere else, 20% said they did not want to spend more time looking for alternative sellers, and 18% said it was available sooner than anywhere else.

Another 18% highlighted that the product wasn't available anywhere else, and other users' ratings and reviews were cited by 17%. Interestingly, ratings and reviews were mentioned significantly more often by frequent online spenders (20%) than infrequent ones (12%).

Interestingly, a general willingness to prioritise price and availability over trust is apparent when considering how respondents overall (i.e. not only those that didn't trust the seller) were asked to describe their attitudes in this regard. In particular, respondents were asked whether they '*usually choose who I purchase from based only on price and delivery conditions, rather than try to purchase from a seller I know and trust*'.

Figure 8.1. Relative importance of price/delivery vs. trust by country



Note: Q33; Question: "I usually choose who I purchase from based only on price and delivery conditions, rather than try to purchase from a seller I know and trust" based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

On average nearly twice as many online consumers agreed with the statement as disagreed, with Türkiye and Korea most likely to agree, and Germany, Italy and Norway least likely.

In line with the previous results, generational differences are also very prominent, with the proportion prioritising price and availability over trust highest among younger consumers (66%) and lowest among older consumers (50%). This also holds after accounting for other socio-economic differences (e.g. income), differences in individual e-commerce patterns or the product price (see Table A.F.12). Trust in a seller is slightly more important to those who use e-commerce most, but the differences are relatively modest and they still only represent the minority (32% of 'light' online shoppers disagree with the statement vs. 40% of 'heavy' online shoppers[46]). Finally, for a few, trust is likely to be seen as an unaffordable luxury – the proportion prioritising price and availability over trust is slightly higher among

those finding it most difficult to make ends meet (68% vs. 63% on average), a result that is also confirmed in the regression analysis.

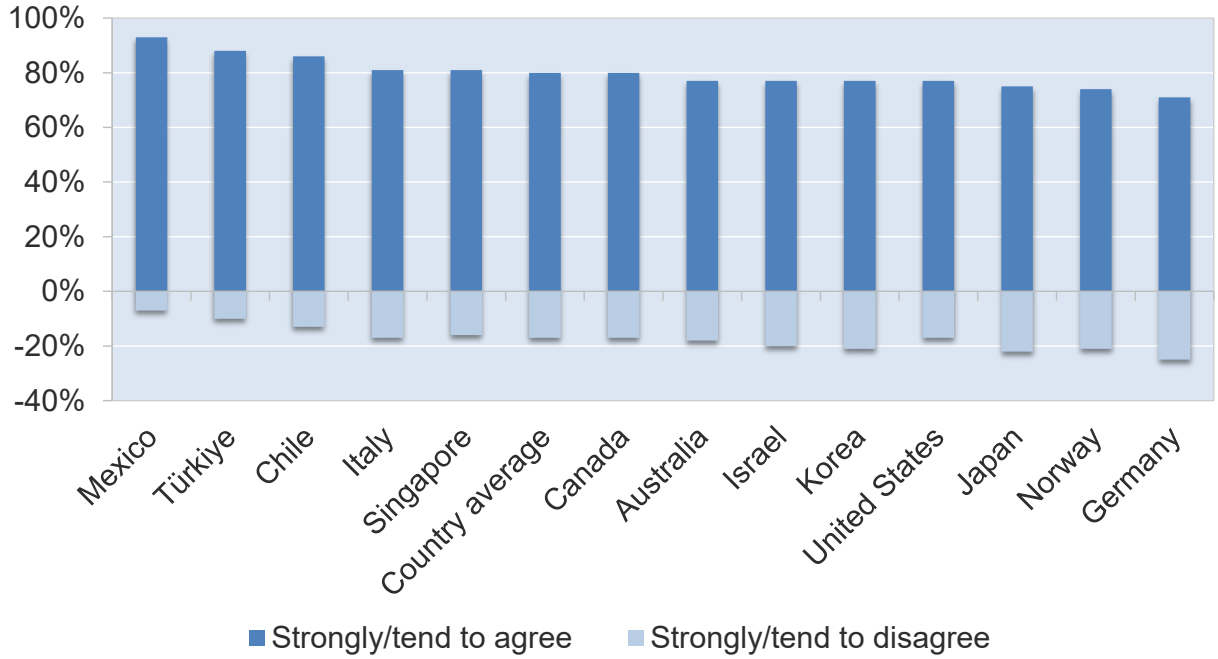
This overall tendency to trust the seller/provider is also reflected in the data when consumers were asked about whether they read the terms and conditions (T&Cs). A clear majority of 70% agreed with the statement that '*I usually expect the terms and conditions will be acceptable, rather than read them before every online purchase*', with only 27% disagreeing. This clear majority is evident in each country, the only exception being Japan (53% agree, 43% disagree).

Interestingly, this finding holds true across almost all consumer types or groups – there are minimal, if any, differences by age, income or educational attainment. However, there are some indications that more experienced online shoppers may be less cautious with regard to T&Cs. In particular, consumers that purchased more frequently and those that purchased a larger number of different product types where more likely to agree to the above statement.

Other differences are apparent when it comes to considering consumers' recent experience i.e. the problem purchase at the heart of the survey. Here the data shows that those consumers who have spent a lot of time trying to resolve the problem are more likely to say they are cautious in terms of reading the T&Cs (31% disagree) than those who have not (23% disagree), and those who did not fully trust the seller/provider they made the purchase from are also more cautious than those who trusted them (33% disagree vs. 22%). The direction of causality, e.g. whether consumers that read T&Cs more frequently are more likely to fight longer for problem solutions or they read T&Cs more frequently as a consequence of the recent experience (difficult resolution), cannot be determined as there is no way of knowing what their respective attitudes were before they experienced the detriment (i.e. before they took the survey).

Based on the data, online reviews, comments and ratings are clearly of more value to consumers before a purchase than T&Cs. Four in five consumers (80%) agreed with the statement '*I usually read the information available (e.g. online reviews, quality certificates) to properly assess the risk involved with an online purchase*', and only around one in five (17%) disagreed. Figure 8.2 shows this data by country.

Figure 8.2. Use of information available to assess risk of purchase



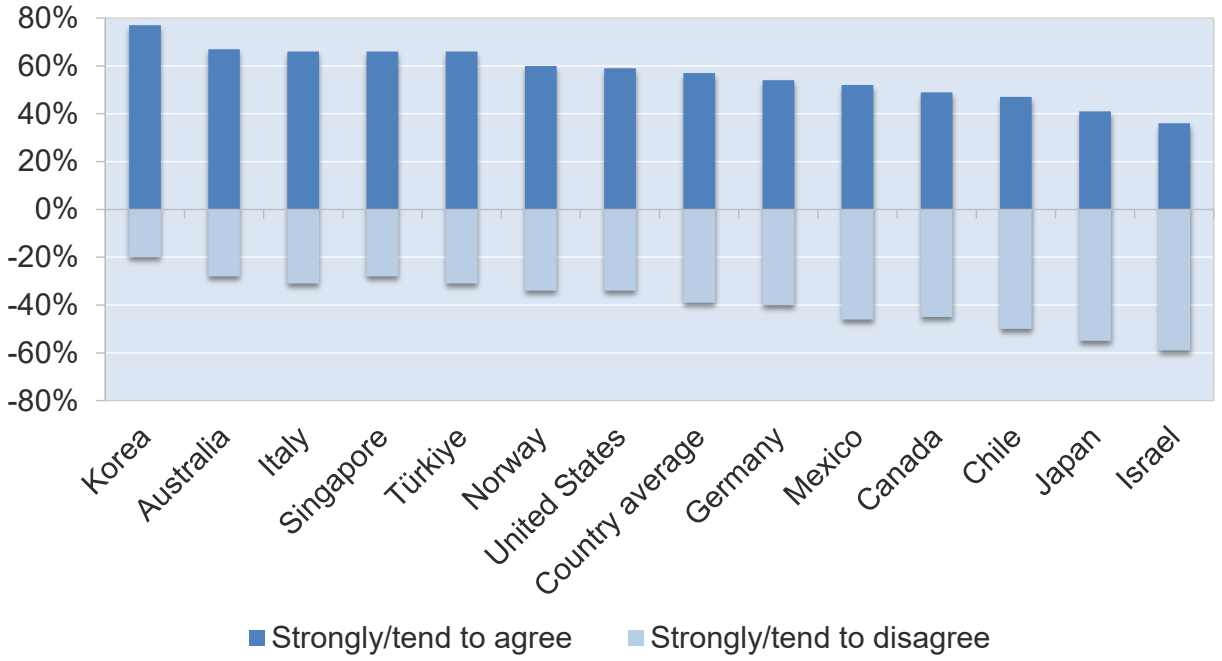
Note: Q33; Question: "I usually read the information available (e.g. online reviews, quality certificates) to properly assess the risk involved with an online purchase" based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

Notably the role of online reviews is more accentuated (albeit only moderately) among frequent online shoppers, 84% of whom agree and 15% disagree, compared to less frequent online shoppers (80% vs. 17%) and, as confirmed in the regression analysis, among those that purchased a higher variety of products in the last 12 months. The regression analysis also suggests that women and consumers who are *not* in economic distress were significantly more likely to agree with the statement.

8.2. Trust in government and consumer protection agencies

It was outlined earlier how, on the whole, consumers trusted the seller/provider that they used. Consumers though did not display the same high levels of trust in government and other consumer protection authorities to protect their interests if things went wrong with an online purchase. Trust varied considerably across countries, with Korea for instance showing much higher levels of trust (77% agree with the statement '*I do trust that my government, or another consumer protection authority, will protect my interests if problems with an online purchase should occur*') than Japan (41%) or Israel (36%). As the regressions show, this also holds after accounting for socio-economic and other observable differences, indicating substantial differences in areas not addressed by the survey, such as the institutional framework or cultural differences.

Figure 8.3. Trust in government and consumer protection agencies

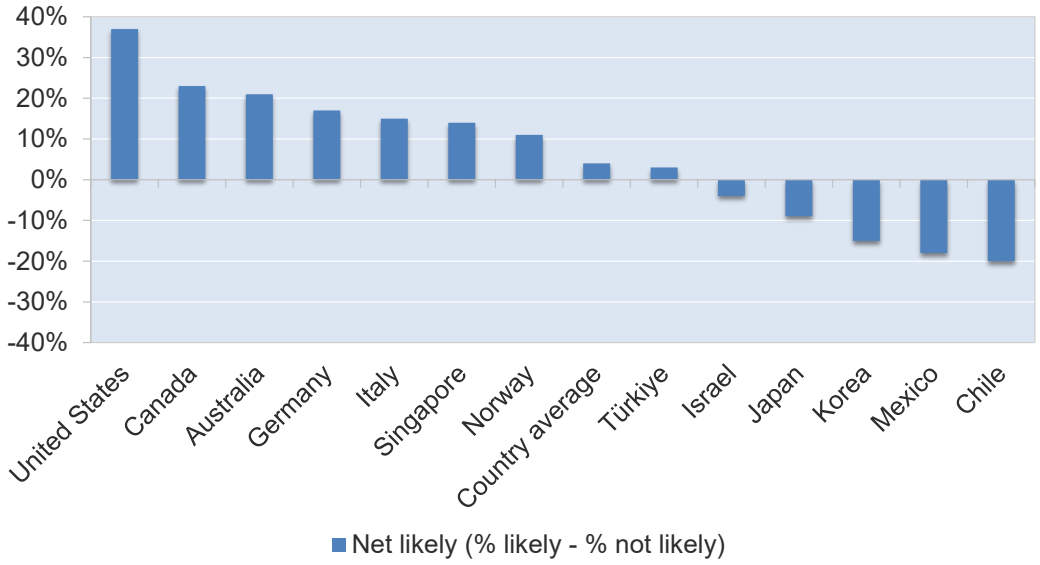


Note: Q33; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

8.3. Are consumers willing to use the same seller again after a problematic purchase?

There are notable and sizeable differences across all the data in terms of how willing consumers are to use the seller/provider in question again.

Figure 8.4. Likelihood of using seller/provider again



Note: Q32; based on all consumers experiencing problems (11 215)

As can be seen in Figure 8.4, consumers in the US are most likely to move on from any negative experiences and consider using the seller/provider again (+37 net likely), while consumers in Latin American (Chile -20%, Mexico -18%), Japan (-9%) and Korea (-15%) are far more cautious. No clear patterns emerge from the survey data as to what is driving these results, but it is likely that, at least to some degree, cultural differences are involved.[47]

In contrast to the evident differences by age in terms of looking to trust seller/providers in the first place, which showed that trust seems to play a more important role for older consumers (see Section 8.1), in terms of likelihood of using them again *after a negative experience*, the differences by age are only marginal. More notable differences are however apparent by household income, with those on lower incomes slightly more cautious (net likelihood of 0%) than those on higher incomes (net likelihood of +11%), and even more tellingly between those in urban areas (+3%) and those in rural areas (+19%). While the latter finding may reflect that consumers in rural areas have fewer outside options (e.g. brick-and-mortar shops) to substitute away from online sellers, there is no data available to assess this hypothesis.

However, one of the most dramatic shifts in willingness to use a seller/provider again is apparent when considering time spent resolving the problem.

Table 8.2 Likelihood of using again by price paid and time spent

Price paid for good/ service:	Net likely to use again %	Time spent resolving problem:	Net likely to use again %	Level of stress:	Net likely to use again %
Low	+4	< 1 hour	+21	< Moderately	+ 21
Medium	-4	1-10 hours	+6	Quite a lot	-17
High	-8	11+ hours	-22	Extremely	-22

Note: Q32; based on all consumers experiencing problems (12 693) and related to the most serious problem they have faced.

As can be seen in Table 8.2, while the price paid for the good or service does not have that big an impact on willingness to use the seller/provider again, the amount of time spent resolving problems, as well as the level of emotional stress suffered, has a dramatic effect – raising the question regarding the relative importance of redress sufficiency, time costs and emotional stress.

A regression analysis (see Annex H) confirms that the likelihood of using the seller again is significantly increasing when consumers obtain full redress, but also decreasing in the time consumers lost resolving the problem and the level of emotional stress. In particular, the regression results suggest that for average levels of time loss and stress, obtaining full redress increased the likelihood of using the seller again from 49% to 55%. However, for consumers that lost significant time when dealing with the problem (e.g. between 11 and 20 hours), the likelihood of returning to the seller remained low (49%) – even when the problem was fully resolved. Similarly, consumers that were *extremely* stressed by the problem, despite a full resolution of the problem, where less likely to return to the seller (43%).

Differences are also stark when considering findings by type of retailer (Table 8.3). Likelihood to use again is highest for the specialised retailers, and falls away dramatically for sellers that consumers approached via an online marketplace. The survey did not assess how trust towards the intermediate platform itself was affected, but results from an earlier

survey suggest that consumers do not necessarily loose trust in the marketplace itself after a negative experience with a seller (OECD, 2017[6]).

Table 8.3 Likelihood of using again, by type of seller

	Total %	Specialised - online %	Specialised - online & offline %	General retailer - online only %	General retailer - online & offline %	Business via online marketplace %	Individual via peer-to-peer online platform %	Business/ individual via social media/ messaging app %
Likely	51	61	62	52	57	39	39	28
Not likely	46	37	36	45	40	59	58	70
Net likely	+5	+24	+26	+7	+17	-20	-19	-42

Note: Q32; based on all consumers who felt other party was at least partly at fault (11 215)

Interestingly, consumers typically attributed responsibility for the problem mostly to the seller/provider who sold them the good or service (51%), and less often to the online platform that connected them to the seller (24%), the manufacturer (21%) or any couriers involved (17%) – very few consider themselves at least partly responsible (6%), although this does rise to 13% among those who purchased via social media or messaging apps.

Annex A. Sample sizes (unweighted)

Table A A.1. Unweighted sample sizes

Country	Total sample size	Online consumer sample*	'Experienced problems' sample	Base for calculating detriment**
Country average (13)	31 466	27 124	12 693	10 112
Australia	2 283	2 022	978	796
Canada	2 557	2 197	954	814
Chile	1 877	1 457	989	797
Germany	2 682	2 373	946	744
Israel	2 039	1 879	1 004	757
Italy	2 336	2 109	987	770
Japan	5 090	4 316	995	794
Korea	2 232	1 978	983	683
Mexico	1 935	1 504	1 002	837
Norway	2 476	2 115	949	715
Singapore	1 815	1 673	967	825
Türkiye	1 834	1 592	970	797
United States	2 310	1 909	969	783

Note: the percentages of consumers experiencing problems cannot be calculated from these figures, as they do not take account of whether consumers have bought products online or not. * The online consumer sample only includes respondents who purchased online within the last 12 months ** i.e. adjusted for those who could not recall the amount paid for the good or service.

Annex B. Online population profiles used for weighting data

Methodologically, the approach was to create a starting sample for each country that was representative of the online population (18 years old +). Responses were collected until the sub-set of consumers who had experienced problems through an online purchase within the last 12 months had reached approximately 1 000. These respondents progressed to the main survey, while all other only responded to the socio-demographic questions.

Initially quotas – or targets – were set for each country to ensure the full sample was representative of the 18+ online population by age, gender, and where possible household income or educational attainment. These quotas were used to target specific socio-economic profiles among the respondents and, once fieldwork was completed, to close any remaining gaps between the full sample and the representative quotas through re-weighting.

As there are no consistent and comprehensive information on the online population for every country available, individual quotas were constructed from a variety of different

official sources. For gender quotas were set for male and female, and then adjusted during the final weighting to take account of the (observed) proportion of respondents who identified as 'another gender'. The weighting details and sources are presented below:

Table A B.1. Weighting factors – Australia

Gender	%	Age	%	Gross weekly household income	%
Male	49.2	18-24	14	up to USD 749	14
Female	50.4	25-34	22	USD 750 – USD 1 299	16
Another gender	0.4	35-44	19	USD 1 300 – USD 2 099	22
		45-54	18	USD 2 100 – USD 3 199	23
		55-64	15	USD 3 200+	24
		65+	12		

Sources: Australian Bureau of Statistics (ABS); "Household use of information technology (Persons use of the internet)", 2016-17, https://www.abs.gov.au/statistics/industry/technology-and-innovation/household-use-information-technology/latest-release#data-download; and "2016 Census Community Profiles (General Community Profile)", https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/communityprofile/036?opendocument

Table A B.2. Weighting factors – Canada

Gender	%	Age	%	Gross annual household income	%
Male	49.9	18-24	12.5	<USD 25 000	12
Female	49.5	25-34	20.3	USD 25 000 – USD 30 000	2
Another gender	0.6	35-44	20.3	USD 30 001 – USD 35 000	4
		45-54	19.7	USD 35 001- USD 50 000	11
		55-64	11.5	USD 50 001 – USD 70 000	15
		65+	15.7	USD 70 001 – USD 100 000	18
				More than USD 100 000	32
				Prefer not to say	6

Sources: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en; Statistics Canada (2017), 2016 Census (database), https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/dv-vd/inc-rev/index-eng.cfm#chrt-dt-tbl

Table A B.3. Weighting factors – Chile

Gender	%	Age	%
Male	49.2	18-24	16
Female	50.3	25-34	27
Another gender	0.5	35-54	38
		55-74	16
		75+	3

Sources: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en; INE (2017), "Final Census 2017 (2021 Projections)", http://www.censo2017.cl

Table A B.4. Weighting factors – Germany

Gender	%	Age	%	Educational Attainment	%
Male	49.8	18-24	10	Low	17
Female	50.0	25-34	17	Medium	50
Another gender	0.2	35-44	17	High	25
		45-54	19	Prefer not to say	8
		55-64	19		
		65+	17		

Sources: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en; Eurostat (2020), Digital Economy and Society (database), https://ec.europa.eu/eurostat/web/main/data/database

Table A B.5. Weighting factors – Israel

Gender	%	Age	%
Male	50	18-24	17
Female	50	25-54	59
Another gender	0	55-74	21
		75+	3

Sources: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en; CBS (2021), "Population – Statistical Abstract of Israel 2020", https://www.cbs.gov.il/en/publications/Pages/2020/Population-Statistical-Abstract-of-Israel-2020-No-71.aspx

Table A B.6. Weighting factors – Italy

Gender	%	Age	%	Educational Attainment	%
Male	50.0	18-24	11	Low	31
Female	49.8	25-34	17	Medium	47
Another gender	0.2	35-44	19	High	21
		45-54	23	Prefer not to say	1
		55-64	17		
		65+	13		

Sources: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en; Eurostat (2020), Digital Economy and Society (database), https://ec.europa.eu/eurostat/web/main/data/database

Table A B.7. Weighting factors – Japan

Gender	%	Age	%	Gross annual household income	%
Male	48.8	18-29	16	< 2m Yen	5
Female	50.6	30-49	33	2m to less than 4m	24
Another gender	0.6	50-69	32	4m to less than 6m	26
		70+	19	6m to less than 8m	20
				8m to less than 10m	15
				10m+ Yen	10

Sources: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en; Statistics Japan (2019), "Population and Households of Japan (Final Report of the 2015 Population Census)", https://www.e-stat.go.jp/en/stat-search/files?page=1&layout=datalist&toukei=00200521&tstat=000001080615&cycle=0&year=20150&month=0&tclass1=000001124175; Statistics of Japan (2020), "Family income and expenditure survey, 2019 - Table 4", https://www.e-stat.go.jp/en/stat-search/files?page=1&layout=datalist&toukei=00200561&tstat=000000330001&cycle=7&year=20190&month=0&tclass1=000000330001&tclass2=000000330019&tclass3=000000330021&result_back=1&tclass4val=0 ; Japanese Ministry of Internal Affairs and Communications: Communication Usage Trends Survey 2018 (Figure 1.4); https://www.soumu.go.jp/johotsusintokei/tsusin_riyou/data/eng_tsusin_riyou02_2018.pdf

Table A B.8. Weighting factors - Korea

Gender	%	Age	%	Gross monthly household income	%
Male	51.2	18-24	12	<1 million KRW	5
Female	48.2	25-34	19	1 mill - < 2 mill	10
Another gender	0.6	35-44	21	2 mill - <3 mill	16
		45-54	22	3 mill - < 4mill	23
		55-64	17	4 mill or more	41
		65+	10	Prefer not to say	5

Sources: Korea Internet & Security Agency (2018), "2017 Survey on the internet usage", https://k-erc.eu/wp-content/uploads/2018/07/2017-Survey-on-the-Internet-Usage.pdf

Table A B.9. Weighting factors - Mexico

Gender	%	Age	%
Male	49.6	18-24	21
Female	49.8	25-34	26
Another gender	0.6	35-54	40
		55+	13

Sources: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en, INEGI (2020), ICT in Households (database), http://en.www.inegi.org.mx/temas/ticshogares/#Tabular_data

Table A B.10. Weighting factors - Norway

Gender	%	Age	%
Male	50.1	18-24	12
Female	49.4	25-34	19
Another gender	0.5	35-44	18
		45-54	19
		55-64	16
		65+	16

Note: for Norway, profile figures for the online population by educational attainment were available, but due to the limited size of Dynata's consumer panel in Norway, it was not possible to achieve the desired proportion of 'low' educational attainment respondents, and the gap was too wide to address via weighting the data.
Sources: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en; Eurostat (2020), Digital Economy and Society (database), https://ec.europa.eu/eurostat/web/main/data/database

Table A B.11. Weighting factors - Singapore

Gender	%	Age	%
Male	48.8	18-24	12
Female	51.0	25-34	20
Another gender	0.2	35-44	20
		45-54	20
		55-64	17
		65+	11

Sources: Singstats (2020), Population and Population Structure (database), https://www.singstat.gov.sg/find-data/search-by-theme/population/population-and-population-structure/latest-data; Data.gov.sg (2019), Individual Internet Usage (database) (2018 data), https://data.gov.sg/dataset/individual-internet-usage?view_id=3b2a762f-f631-41fa-9b63-5c8f955dc07e&resource_id=e81b1683-7d5f-4f35-a4d9-4240ae5002bb

Table A B.12. Weighting factors - Türkiye

Gender	%	Age	%
Male	49.50	18-24	19
Female	41.50	25-34	26
Another gender/ prefer not to say	9.0	35-44	25
		45-54	17
		55-64	9
		65+	4

Sources: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en; Turkstat (2021), "The Results of Address Based Population Registration System, 2020", https://data.tuik.gov.tr/Bulten/Index?p=The-Results-of-Address-Based-Population-Registration-System-2020-37210; Turkstat, "Information and Communication Technology (ICT) Usage Survey on Households and Individuals, 2020", https://data.tuik.gov.tr/Bulten/Index?p=Survey-on-Information-and-Communication-Technology-(ICT)-Usage-in-Households-and-by-Individuals-2020-33679

Table A B.13. Weighting factors - United States

Gender	%	Age	%	Educational Attainment	%
Male	48.0	18-24	15.1	Low	9
Female	51.5	25-34	19.2	Medium	45
Another gender	0.5	35-44	17.3	High	44
		45-54	16.8	Prefer not to say	2
		55-64	15.6		
		65+	16.1		

Sources: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en; USCB (2019), American Community Survey (database), https://data.census.gov/cedsci/table?d=ACS%205-Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2019.DP05; USCB (2019), American Community Survey (database), https://data.census.gov/cedsci/table?q=Education&tid=ACSST1Y2019.S1501&hidePreview=false Pew Research Centre (2021), "Internet/Broadband factsheet, 2019 data", https://www.pewresearch.org/internet/fact-sheet/internet-broadband/

Annex C. Treatment of outlying data points

With any survey of this nature there will be some respondents who enter extremely high values at numerical questions such as Q8 (price paid for the good or service), either accidentally or through thoughtlessness or carelessness. Such incorrect high values can disproportionately affect the calculation of means, which underpin a lot of the survey findings. As a result, we took a three-stage approach to ruling out such 'outlier' values.

At the questionnaire programming stage, we set 'maximum values' for each numerical value question. If a respondent entered a value in excess of this maximum, they were prompted to confirm that that was their correct intended response and re-enter it. This highlighted a number of respondents who had, for instance, accidentally entered in an additional '0' in their answer. The maximum values were:

- USD 1 000 for price paid (Q8), or the approximate equivalent in local currency (USD 2 000 in the case of bicycles, cars, etc.; other transport services e.g. flights; and accommodation rental).
- Twice the value paid in additional charges or hidden fees (Q11).
- USD 500 (or the approximate equivalent in local currency) for money spent on each category of repairs/replacements, legal action, damage and other costs (Q17).
- Twice the value paid in reimbursement or compensation (Q20).

After fieldwork was completed, we produced lists of respondents who had entered values in excess of these maximums, and deleted any respondents whose responses we considered to be implausible. Examples included:

- A complete change of mind at Q8 e.g. entering a 'price paid' of USD 1 075 and, when prompted, changing it to USD 240.
- Entering identical costs of USD 30 for each category of repairs/ replacements, legal action, damage and other costs (Q17), or suspicious amounts in costs such as USD 1 234 or USD 567.
- Entering implausible combinations such as spending USD 2 on digital media per month but then incurring USD 20 000 in legal costs.

Lastly, after a data file was produced, we ran analysis that highlighted the following respondents, who we then deleted from the final data file.

- The top 5% of Post-redress detriment values who also selected more than 5 high-level problem categories.[48]
- The top 5% of Post-redress detriment values who felt the problem had been fully resolved and were either completely or very satisfied with the resolution they had achieved so far.
- All respondents that added the same (non-zero, non-missing) value in all four parts of Q17 (types of costs incurred).
- All respondents that added at least three values in Q17, where each value was either exactly half or double of the previous value (e.g. 80/40/20/10 or 10/20/40/80).

Annex D. Calculation of financial detriment

For the calculation of consumer detriment, the report closely follows the methodology developed for the EU Report *Study on measuring consumer detriment in the European Union* (EC, 2017[5]). Table A.D.1 provides an overview of the required survey questions

and shows how these map into the different elements of (pre- and post-redress) detriment. Concrete examples of how different problem cases translate into different amounts of (pre- or post-redress) are provided in (EC, 2017[17]), Section 3.2.

Table A D.1. Consumer detriment - calculation

Question No:	Subject	Detriment component
Q8	Price paid for good or service (taking into account one-off or subscription)	Pre-redress detriment
Q12	Extent to which product could or could not be used	
Q22/23/24	Duration of the problem	
Q11	Additional or hidden charges	
Q17	Extra costs incurred (Repairs, Legal, Damage, Other)	
Q20	Reimbursement or compensation	Redress
Q19	Was product repaired or replaced	
(Post-redress) Detriment = pre-redress detriment - redress		

Full details for the applied calculations in this report are provided in schematic form on the following pages. More details regarding specific methodological choices are provided in (EC, 2017[5]). However, the following aspects are noteworthy:

- To calculate the financial loss related to a "loss of product usability", responses to Q12 are transformed into a numerical index [0;1], representing the loss of usability in percentage terms: *Not at all* = 100%; *Partly, with major difficulty* = 67%; *Partly, with minor difficulty* = 33%; *Fully* = 0%. This index is subsequently used together with the product price (Q8) and (for subscriptions) the duration of the problem (Q22-Q24) to calculate the financial detriment resulting from a "loss of product use".
- The maximum financial detriment, due to a loss of product use, is therefore:
    - in the case of subscriptions: the recurring price of the product (e.g. USD 20 per month) times the duration of the problem (e.g. 2 months), i.e. here USD 40. If the problem duration reaches the maximum ("a year or more"), an upper bound of 1.5 years is assumed as base for the "loss of value" calculations.
    - in the case of one-off purchases: the product price.
- The duration of the problem has no effect on the detriment suffered in the case of one-off purchases. Accordingly, if a product (e.g. Price = USD 50) could not be used at all for a month, e.g. because it was delivered later than promised or had to be send away for repairs, the level of pre-redress detriment (abstracting from extra or hidden costs) would simply be USD 50. If the problem is subsequently resolved and the product finally delivered or repaired, redress is assumed to have fully covered the amount of pre-redress detriment resulting from the loss of usability. In the absence of other forms of financial detriment (e.g. extra costs) the level of post-redress detriment will then be equal to zero. Accordingly, the fact that a product may have been unavailable for a certain amount of time does not show up in calculation of *financial* detriment, unless there were extra costs (Q17) involved, such as the costs for a replacement product, repairs or legal advice. Additionally, the time consumers lost resolving the problem is accounted for through Q15 – which can also be translated into monetary values.

Defining detriment at the individual respondent level: detailed calculations

- Define PRICE as output of Q8_1
  - Replace PRICE with output of Q8BIS_1 if Q8BIS_1 is not missing
- Define FREQUENCY as output of Q8_2
  - Replace FREQUENCY with output of Q8BIS_2 if Q8BIS_2 is not missing
- Define VALUEREDUC_factor
  - Replace VALUEREDUC_factor = 1 if Q12 = 1
  - Replace VALUEREDUC_factor = 0.67 if Q12 = 2
  - Replace VALUEREDUC_factor = 0.33 if Q12 = 3
  - Replace VALUEREDUC_factor = 0 if Q12 = 4
  - Replace VALUEREDUC_factor = 0 if Q12 = 97
  - Replace VALUEREDUC_factor = 0 if Q13_3 = 1
  - Replace VALUEREDUC_factor = 1 if (Q13_1 == 1 OR Q13_2 == 1)
- Define DURATION
  - Replace DURATION = 1 if (Q22_ = 1 or Q23 = 1 or Q24 = 1)
  - Replace DURATION = 4 if Q22 = 2 or Q23 = 2 or Q24 = 2)
  - Replace DURATION = 19 if Q22 = 3 or Q23 = 3 or Q24 = 3)
  - Replace DURATION = 61 if Q22 = 4 or Q23 = 4 or Q24 = 4)
  - Replace DURATION = 137 if Q22 = 5 or Q23 = 5 or Q24 = 5)
  - Replace DURATION = 275 if Q22 = 6 or Q23 = 6 or Q24 = 6)
  - Replace DURATION = 549 if Q22 = 7 or Q23 = 7 or Q24 = 7)
  - [Note: Assumption is a maximum of 1.5 years]
- Define VALUE
  - Replace VALUE = PRICE if FREQUENCY = 1
  - Replace VALUE = (PRICE/7) * DURATION if FREQ = 2
  - Replace VALUE = (PRICE/30.5) * DURATION if FREQ = 3
  - Replace VALUE = (PRICE/365) * DURATION if FREQ = 4
  - set VALUE to missing if DURATION is missing and FREQUENCY = (2 OR 3 OR 4)
- Define VALUEREDUC
  - Replace VALUEREDUC = VALUE * VALUEREDUC_factor
  - set VALUEREDUC to missing if VALUE is missing
- Define HIDDENCHARGE
  - replace HIDDENCHARGE = Q11
  - replace HIDDENCHARGE = Q11BIS if Q11BIS is not missing
  - replace HIDDENCHARGE = 0 if Q11DK = 1

  - set HIDDENCHARGE to missing if VALUE is missing
- Define EXTRACOSTS
  - Replace EXTRACOSTS = sum of (Q17_1, … ,Q17_4)
  - [USING Q17_xBIS where available]
  - [Note: here missings are interpreted as zeros]
  - Replace EXTRACOSTS = EXTRACOSTS - Q17_1 (or if available: Q17_1BIS) if (Q17_1 [or if available: Q17_1BIS]) is not missing AND Q13_3 = 1 AND (Q13_1 = 1 OR Q13_2 = 1)
  - [Note: this condition avoids double counting – if the product was replaced/repaired but the contract was cancelled or the product returned in time to get a full refund, then the replacement costs are not taken into account when calculating detriment (i.e. the order of conditions above matters)]
  - set EXTRACOSTS to missing if VALUE is missing
- Define PREREDRESS_DETRIMENT
  - Replace PREREDRESS_DETRIMENT = sum of (VALUEREDUC, HIDDENCHARGE, EXTRACOST)
  - [Note: here the value is set to missing if either of the three is missing]
  - set PREREDRESS_DETRIMENT to missing if VALUE is missing
- Define REDRESSMONETARY
  - Replace REDRESSMONETARY = Q20
  - Replace REDRESSMONETARY = Q20BIS if Q20BIS is not missing
  - Replace REDRESSMONETARY = 0 if Q20DK = 1
  - Replace REDRESSMONETARY = VALUEREDUC if Q20DK = 1 & (Q13_1 = 1 OR Q13_2 = 1)
  - Replace REDRESSMONETARY = VALUEREDUC if REDRESSMONETARY = 0 & (Q13_1 = 1 OR Q13_2 = 1)
  - set REDRESSMONETARY to missing if VALUE is missing
- Define REDRESSREPAIRS
  - Replace REDRESSREPAIRS = 0
  - Replace REDRESSREPAIRS = VALUEREDUC if (Q19_5 = 1 or Q19_6 = 1)
  - set REDRESSREPAIRS to missing if VALUE is missing
- Define REDRESS
  - Replace REDRESS = REDRESSMONETARY + REDRESSREPAIRS
  - Note: REDRESS is missing if either of the two forms of redress is missing
  - set REDRESS to missing if VALUE is missing
- Define POSTREDRESS_DETRIMENT
  - Replace POSTREDRESS_DETRIMENT = PREREDRESS_DETRIMENT – REDRESS
  - set POSTREDRESS_DETRIMENT to missing if VALUE is missing

Annex E. Detriment and redress – *median* values

Table A E.1. Detriment and redress – median vs. mean – by country

	Price paid for product* USD		Pre-redress detriment USD		Post-redress detriment USD	
	Median USD	Mean USD	Median USD	Mean USD	Median USD	Mean USD
Country average (13)	57	218.8	21	149.7	6	69.1
Australia	55	261.6	23	240.6	7	21
Canada	42	121.4	21	89.2	0	32.2
Chile	77	255.7	12	138.9	12	116.8
Germany	67	258.9	27	151.9	7	107
Israel	54	165	8	90.8	7	74.1
Italy	60	191.1	18	112.7	7	78.4
Japan	29	113	7	78.9	0	34.1
Korea	41	122.5	23	87.3	0	35.2
Mexico	67	252.9	21	148.3	16	104.6
Norway	72	243.9	13	164.3	18	79.6
Singapore	57	206.5	23	163.6	0	42.9
Türkiye	95	341.4	47	267.4	7	74
USA	66	302.9	25	202.3	15	100.6

Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Where monetary values are presented, they are presented in USD. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices.

Table A E.2. Detriment and redress – median – by problem type

	Price paid for product* USD (median)	Pre-redress detriment USD (median)	Post-redress detriment USD (median)
Price	67	89	21
Payment	65	85	21
Delivery	60	60	8
Product	58	60	4
T&C	67	104	25
Cancellation	71	96	15
Post Sales	74	95	22
Scam	68	100	29
Other	48	33	0

Note: Q9; based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Where monetary values are presented, they are presented in USD. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for.

Table A E.3. Detriment and redress – median – components by country

	Australia	Canada	Chile	Germany	Israel	Italy	Japan	Korea	Mexico	Norway	Singapore	Türkiye	United States
Product value	55	54	83	67	54	67	39	58	63	61	57	90	50
Loss of product use	28	25	48	40	41	30	19	30	32	38	30	57	25
Hidden or additional fees	0	0	0	0	0	0	0	0	0	0	0	0	0
Extra costs incurred	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre-redress detriment	55	42	77	67	54	60	29	41	67	72	57	95	66
Monetary redress	10	13	0	20	0	7	0	6	11	2	11	38	15
Repairs or replacements	0	0	0	0	0	0	0	0	0	0	0	0	0
Redress	23	21	12	27	8	18	7	23	21	13	23	47	25
Post-redress detriment	7	0	12	7	7	7	0	0	16	18	0	7	15

Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Where monetary values are presented, they are presented in USD. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices.

Table A E.4. Detriment and redress – median – by type of transaction

	Price paid for product* USD (median)	Pre-redress detriment USD (median)	Post-redress detriment USD (median)
One-off	67	57	3
Subscription	30	60	17

Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Where monetary values are presented, they are presented in USD. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for.

Table A E.5. Detriment and redress – median – by origin of seller

	Price paid for product* USD (median)	Pre-redress detriment USD (median)	Post-redress detriment USD (median)
Domestic	63	60	5
Abroad	55	54	11

Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Where monetary values are presented, they are presented in USD. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for.

Table A E.6. Detriment and redress – median – by type of product

	Price paid for product* USD (median)	Pre-redress detriment USD (median)	Post-redress detriment USD (median)
Clothing, footwear, sporting goods	60	57	2
Furniture, home, gardening	109	90	6
Printed media, CDs	34	29	0
Computers, electronics, appliances	118	107	4
Personal care products	46	41	3
Medicine	54	52	17
Food, beverages, groceries	42	33	0
Bicycles, cars etc.	170	135	20
Digital media	27	37	9
Entertainment events	95	99	34
Rideshare services	24	21	7
Flights, train, car rental etc.	240	271	54
Accommodation rental including hotels	263	204	27
Telecommunication services	43	54	16
Electricity, gas etc.	100	103	34
Household services	91	74	20
Finance products	97	124	14
Other goods or services	46	35	0

Note: based on all consumers experiencing problems (10 112) and related to the most serious problem they have faced. Where monetary values are presented, they are presented in USD. Consumers' responses were provided in the local currency, and were then converted into USD using OECD 2020 Purchasing Power Parity indices. * For subscriptions 'price paid' accounts for the number of weeks or months the problem lasted for.

Annex F. Extended socio-economic analysis

This appendix provides a more fine-grained analysis of the correlations between socio-economic consumer characteristics and detriment outcomes.

Table A.F.1 shows the results from regressing the incidence of problems, captured by a dichotomous variable that equals 1 if the individual has faced a problem and 0 otherwise, on different socio-economic characteristics. Focusing on the incidence of problems, the analysis naturally considers all individuals in the sample, including those that have not faced a problem in e-commerce. The socioeconomic variables considered are the person's gender and age,[49] as well as indicator variables (with values 0 or 1) capturing whether: the person has low education; low income; faces difficulties to make ends meet (an alternative, more subjective but potentially also more accurate measure of economic well-being); is unemployed; or lives in a rural area. The analysis underlying the results in column 1 is analogous to the analysis in Table 2.1 inasmuch it does not separate out the effects of specific countries on the results. The statistical significance and overall direction of the correlation between each of the socio-economic characteristics and the incidence of problems can be directly read off the regression coefficients in the table. In particular, all considered socio-economic characteristics, apart from the indicator for consumers living rural areas, are statistically significant predictors of the incidence rate. The sign of the coefficients suggests that the incidence of problems is lower for women, older consumers, consumers with lower education and unemployed consumers. The coefficients on the two measures of economic wellbeing, low income and difficulties to make ends meet, show

opposite signs, making an interpretation difficult. They will be discussed in more detail below.

Table A F.1. Regression: Socio-economic characteristics and problem incidence

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable	Incidence	Incidence	Incidence	Incidence	Incidence	Incidence
Female	-0.0480***	-0.0411***	-0.0464***	-0.0466***	-0.0461***	0.797***
Age	-0.00848***	-0.00709***	-0.00592***	-0.00599***	-0.00593***	0.973***
Low education	-0.0414***	-0.0675***	-0.0342***	-0.0274**	-0.0335***	0.858***
Low income	-0.0167*	-0.0341***	0.00586	0.0179**		
Low ability to make ends meet	0.0626***	0.0650***	0.0745***		0.0754***	1.430***
Unemployed	-0.0371***	-0.0522***	-0.0318**	-0.0234*	-0.0304**	0.872**
Rural	-0.0109	-0.0150	-0.000760	0.00157	-0.000684	1.001
Recent purchase			-0.0257**	-0.0281**	-0.0257**	0.885**
Product type variety			0.0325***	0.0322***	0.0324***	1.167***
Country FX	no	yes	yes	yes	yes	yes
Constant	0.874***	0.814***	0.621***	0.635***	0.622***	2.241***
Observations	26,513	26,513	26,513	26,513	26,513	26,513
Adjusted R-squared	0.074	0.116	0.160	0.158	0.160	

Note: Specifications (1)-(5) show the results of a linear probability model and specifications (6) shows the results of a logit model (odds ratios). Robust standard errors; *** p<0.01, ** p<0.05, * p<0.1.
Source: OECD

Column 2 shows the results of a fixed effects (FE) regression, which effectively cancels out between-country variations in the incidence rate, explained, for example, by differences in culture, postal infrastructure or the regulatory framework. Accordingly, it uses only within-country variation to estimate the coefficients of the different socio-economic characteristics. This is akin to a comparison of the average incidence rate between consumers with different socio-economic characteristics, e.g. pertaining to a different age group, on a country-by-country basis. As a result, the absolute size of several estimated coefficients changes, suggesting that the simple comparison of means presented in Table 2.1 likely overrepresented the role of some socioeconomic differences (e.g. age) and underrepresented the role of others (e.g. education or income). However, the previously determined effects remain highly statistically significant and now also the indicator for individuals living in rural areas suggests a slightly lower incidence rate for these consumers.

Column 3 explores to what extent differences in purchase patterns may be partly responsible for the observed socio-economic differences in the incidence rate. In particular, the lower incidence rate for older, low income or unemployed consumers could be explained exclusively by a lower exposure to the risks of e-commerce, e.g. because they make purchases less frequently or from a smaller set of different markets. Because the analysis of the incidence rate relies on information from consumers who have not faced a problem, unfortunately only questions appearing in the screening section of the survey (*Section 1*), filled out by all participants, can be used to shed light on different purchase patterns. Column 3 considers the following two variables: i) a dichotomous variable, based on Q1, indicating whether the consumer has made an online purchase within the last three

months (*recent purchase*) and ii) a count variable, based on Q2, for the number of distinct product types purchased by the consumer over the last 12 months (*product type variety*).

The results in Column 3 suggests that both variables have a statistically significant impact on the incidence of problems. In particular, holding constant socio-economic and country characteristics, the incidence rate of problems appears to be lower for consumers who have made an online purchase within the last three month (potentially reflecting the experience component of more frequent purchases) and higher for consumers that purchased a higher number of different product types (potentially reflecting increased exposure). With regard to the socio-economic effects, whose estimation now relies on the comparison of consumers with similar purchase patterns, most results remain qualitatively unchanged. However, several of the coefficients diminish in terms of their absolute size (e.g. age, low education, low income, unemployed), implying that differences in purchase patterns indeed were responsible for part of the socioeconomic variations. The coefficient of the low-income indicator becomes indistinguishable from zero, implying that the variation remaining in the data after accounting for differences in purchase patterns and the subjective measure of economic wellbeing is not enough to identify an additional income effect.

Columns 4 and 5 show that the inclusion of the low-income indicator effectively does not add much to the explanatory power of the analysis once the second measure of economic well-being (ability to make ends meet) and differences in purchase patterns are accounted for. In particular, the adjusted R-squared of the regression with both measures of economic well-being (Column 3) is identical to the one that only considers the ability to make ends meet (Column 5). Alternatively considering only the low-income measure (Column 4) not only leads to a drop in explanatory power of the model, but also renders the coefficient of the low-income variable positive, suggesting that the indicator now picks up much of the variation originally picked up by the more subjective indicator. As there is no way of telling apart the different elements of low economic well-being captured by the two indicators in the first place, the following analysis will only consider the subjective measure as an overall measure of economic distress.

As the dependent variable, problem incidence, is a dichotomous measure, column 6 provides a re-estimation based on the logit rather than a linear probability model. Column (6) is our preferred specifications. In contrast to columns (1)-(5), which report the coefficients of a linear regression, the numbers presented in column 6 represent odds ratios. Accordingly, the results would suggest, for example, that the odds of facing a problem are 20% lower [(0.80-1)/100] for women than for men, which, evaluated at means, translates into a 43.7% probability to encounter a problem for women, compared to 49.4% for men (see Table A.F.2).[50] Similarly, the odds are around 14% lower for individuals with low education (prob.: 43.1% vs. 46.9%), around 12% lower for unemployed individuals (prob.: 43.4% vs. 46.8%), but close to 44% higher for individuals in economic distress (prob.: 54.2% vs. 45.3%) – after accounting for the observable differences in purchase patterns. Furthermore, each additional year of age diminishes the odds of encountering a problem by 2.7%. This translates, for example, into a probability of encountering a problem of 60.0% at age 25 compared to 42.8% at age 50 or 36.2% at age 60. Whether the individual lives in an urban or rural environment has no statistically significant effect on the odds of encountering a problem.

Table A F.2. Implied probabilities: Socio-economic characteristics and problem incidence

Average:		46.6%	
Age 25	60.0%	Age 50	42.8%
Men	49.4%	Women	43.7%
Economic distress	54.2%	No economic distress	45.3%
Not unemployed	46.8%	Unemployed	43.4%
High Education	46.9%	Low Education	43.1%
Rural	(46.6%)	Non-rural	(46.6%)

Note: Based on column 6 of table A.F.2.
Source: OECD calculations.

Magnitude of detriment

This section discusses the magnitude of detriment by socio-economic characteristics, considering only the most problematic transaction reported by consumers First, the magnitude of pre-redress detriment is considered *relative* to the value of the purchase. The aim is to capture the gravity of the problem, while also accounting for the fact that more expensive products naturally tend to be associated with higher detriment (e.g. cancelled flights) and are more likely to be purchased by certain socio-economic types of (e.g. wealthier) consumers. Accordingly, the section assesses which socio-economic groups faced the highest level of detriment, *after* accounting for possible differences in the value of the products purchased.

Table A F.3. Regression: Socio-economic characteristics and (relative) pre-redress detriment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dependent Variable	Detriment ratio	Detriment ratio*	Detriment ratio*	Detriment ratio*	Detriment ratio*	Detriment ratio*	Detriment ratio*	Detriment ratio*	High detriment (1/0)	High detriment (1/0)
Female	-0.480**	-0.0770***	-0.0841***	-0.0451***	-0.0705***	-0.0423***	-0.0295*	-0.0824***	0.886**	0.851***
Age	-0.0176**	-0.0037***	-0.0035***	-0.0025***	-0.0036***	-0.0018***	-0.0018***	-0.0043***	0.998	0.993***
Low education	0.577	0.00924	0.0234	-0.00245	0.00515	-0.00846	-0.00482	0.0145	1.079	1.056
Low ability to make ends meet	0.753**	0.120***	0.124***	0.0969***	0.113***	0.0717***	0.0751***	0.145***	1.235***	1.314***
Unemployed	-0.663	-0.112***	-0.123***	-0.100***	-0.105***	-0.0821**	-0.0614	-0.138***	1.016	0.913
Rural	0.636*	0.109***	0.119***	0.0732***	0.107***	0.0752**	0.0563*	0.121***	1.118	1.186**
Recent purchase			-0.0926**				0.0366		1.195	
Product variety			0.00719***				0.00435*		1.031***	
High spending			-0.0175				0.0278		0.981	
Rare purchases			-0.00247				0.00217		1.016	
Product value				-9.86e-05***			-0.00011***		1.000***	
Foreign seller				-0.00257			-0.0130		0.987	
Subscription				0.593***			0.476***		1.098	
Q33_1 agree					0.0704***		0.0360**		1.097*	
Q33_2 agree					0.0577***		0.0573***		1.212***	
Q33_3_agree					0.0491***		0.0212		1.063	
Q33_4_agree					0.0110		0.00501		0.966	
Q33_5_agree					-0.00330		0.00198		0.976	
COVID-19-related						0.200***	0.179***		1.428***	
Problem complexity						0.0376***	0.0381***		1.103***	
Probl.: Price						-0.0190	-0.0305		0.940	
Probl.: Payment						0.0970***	0.0107		0.921	
Probl.: Delivery						-0.130***	-0.0990***		0.771***	
Probl.: Product						-0.0778***	-0.0490**		0.830***	
Probl.: T&C						0.103**	0.0450		1.053	
Probl.: Cancel						0.0408*	0.0499*		1.363***	
Probl.: Post sales						-0.0215	-0.0199		0.959	
Probl.: Scam						0.0669*	0.0506		0.965	
Probl.: other						-0.182***	-0.126***		0.665***	
Country FX	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Product FX	no	no	no	yes	no	no	yes	no	yes	no
Observations	9,900	9,900	9,565	9,277	9,193	9,108	7,841	7,841	7,890	7,890
Adjusted R-squared	0.017	0.038	0.041	0.136	0.052	0.111	0.191	0.045		

Note: Specifications (1) shows the results of a linear probability model where the dependent variable is the ratio of pre-redress detriment over the product value. In specifications (2)-(8) this ratio has been IHS transformed (*). Specifications (9)-(10) show the results of a logit model (odds ratios), where the dependent variable is a dummy equal to 1 if pre-redress detriment is at least as high as the product value. Robust standard errors; *** p<0.01, ** p<0.05, * p<0.1.
Source: OECD

The first column (1) of table A.F.3 is similar to column (2) in Table A.F.1, including all socio-economic variables of interest (apart from the low income measure) and accounting

for possible country specific effects.[51] Interestingly, the results for the (pre-redress) detriment over value ratio are broadly in line with the results for the incidence rate, suggesting that female and older individuals face lower, and individuals in economic distress higher pre-redress detriment on average. In difference to the previous results, education and unemployment do not seem to have a significant impact on the detriment to product value ratio, after accounting for the other socio-economic characteristics. On the other hand, consumers in rural areas now seem to face (statistically) significantly higher detriment on average.

Column (2) accounts for the fact that the distribution of the ratio of pre-redress detriment over the product value is highly skewed, with 69 individuals facing pre-redress detriment over 50 times higher than the value of the product purchased and for two it is over 500 times higher. To avoid that the results are too dependent on these arguably more extreme cases, an inverse hyperbolic sine (IHS) transformation is used to scale down the impact of these observations on the results. Here, the IHS transformation is more suitable than the more common log-transformation because a) it allows for the inclusion of zero values in the dependent variable and b), importantly, it doesn't distort the distribution too much for values close to zero, which are more common in the context of a ratio. In particular, the transformation is almost linear for small values in the ratio (e.g. smaller than 0.5) and approaches a log-transformation for values larger than 3 (Aihounton and Henningsen, 2020[18]). The increase in the adjusted r-squared suggests a better fit of the model and the association between all the socio-economic dimensions and the ratio of interest remains intact, suggesting that the previous results were not only driven by some very high values. The statistical significance of most coefficients increases, now additionally suggesting lower detriment for unemployed respondents.

Columns (3) to (7) examine to what extent the observed socio-economic differences may reflect other differences, such as differences in purchase patterns, different types of problems faced or consumer characteristics beyond socio-economics. Different from the regressions for the incidence rate, which also relied on consumers that did not face a problem and hence did not complete the full questionnaire, many more observable differences between consumers can now be considered. In particular, column (3) focuses on different e-commerce patterns, accounting not only for the two controls previously added (*recent purchase*, *product type variety*) but additionally a *rare purchases* indicator that turns 1 when the individual purchased online less than 2 times in the last 3 months (based on Q34) and a *high spending* indicator that turns 1 when the consumer spent more than 100 Euros online over the past 3 months. Column (4) adds controls for the type of purchase, including i) product type fixed effects (based on Q7), ii) an indicator *foreign* for purchases involving sellers from abroad (Q28), iii) an indicator subscriptions for repeated, rather than one-off purchases, and iv) the *product value*, to account for the fact that, e.g., consumers may systematically become more careful to avoid detriment for purchases of higher value. Column (5) considers indicators that are equal to one when consumers tend to agree with certain statements regarding their attitudes (Q33), to see how these may be associated with the detriment ratio. Finally, column (6) considers the characteristics of the problem itself, including i) one *problem type* indicator for each possible (top-level) problem type (e.g. Scam) faced by the consumer (Q9), ii) an indicator for whether the individual considered the problem to be directly related to COVID-19 (Q10), and iii) a variable counting the number of different problem types ticked (Q9, detailed level), approximating the *"complexity*" of the problem. Column (7) adds all the previously mentioned controls simultaneously.

The results suggest that while each of the new explanatory dimensions adds significantly to the explanatory power of the model, as indicated by the increases in the R-squared, all previously detected socio-economic differences remain highly statistically significant.

Accordingly, robust differences in (pre-redress) detriment, relative to the product value, remain for certain socio-economic groups even after accounting for possible differences in the type of products purchased, the type of problems faced and other consumer or transaction characteristics. To obtain an idea of the estimated size of the socio-economic differences, and how much of these differences is accounted for by other observed differences between consumers, it is illustrative to compare the results in column (7) to column (8), which repeats column (2) but, to ensure an apples-to-apples comparison, limits the regression to only those observations for which data is available across all the different dimensions.

The results in column (8) suggest that, evaluated at the means of all variables, the average ratio of pre-redress detriment is 1.174, i.e. the level of pre-redress detriment typically exceeds the value of the product by 17.4%. This percentage is around 23.4% for men and only 10.7% for women. The average detriment ratio is higher for individuals living in rural areas (34.6% compared to 15.3%) and those with difficulties to make ends meet (37.2% compared to 13.9%). For unemployed consumers, the ratio of detriment to product value is particularly low, remaining below 1 (-2% compared to 18.5%). For age, the results suggest that, compared to the cross-sample average of 17.4% for individuals of average age (~40), increasing (reducing) age by 10 years reduces (increases) the detriment ratio by 6.6 percentage points to 10.8% (24.0%).[52] These and other selected results are summarised in table A.F.3.

Table A F.4. Implied probabilities: Socio-economic characteristics and (relative) pre-redress detriment

Average		117.4%	
Age 25	127.3% [121.6%]	Age 50	110.8% [114.6%]
Men	123.4% [119.5%]	Women	110.7% [115.0%]
Economic distress	137.2% [127.4%]	No economic distress	113.9% [115.6%]
Not unemployed	118.5% [117.9%]	Unemployed	98% [108.6%]
High Education	(117.3% [116.7])	Low Education	(119.5% [117.5%])
Rural	134.6% [125.3%]	Non-rural	115.3% [116.4%]
COVID	[138.1%]	No COVID	[109.7%]
Subscription	[185.3%]	One-Off purchase	[102.6%]

Note: Based on column 8 of table A.F.3. Results for column 7 in squared brackets. Results in round brackets are not statistically significant.
Source: OECD calculations.

Accounting for other observable differences between consumers pertaining to different socio-economic groups (column 7), suggests that slightly less than half of these initially observed socio-economic differences can be explained by other observable differences previously not considered, including different e-commerce patterns, products purchased or problems encountered (see squared brackets in table A.F.3 for the reduced effect sizes implied by column 7). Assigning the *explained* variation to the different groups of control variables, following the approach proposed by (Gelbach, 2016[19]), suggests that, in line with the observed increases in r-squared, the two main factors accountable for the reduced impact of socio-economic effects are related to i) the type of problems faced by consumers, and ii) the type of product purchased, including whether the transaction relates to a subscription or a one-off purchase.

Columns (9) and (10) show a variation of columns (7) and (8), where the ratio of pre-redress detriment to product value is replaced by a *high pre-redress detriment* indicator, equal to 1 if pre-redress detriment is equal to or exceeding the product value and zero otherwise.

While this may seem like a high cut-off value, it is actually not too restrictive considering that it will be fulfilled whenever the purchased product could not be used at all for some time, e.g. because the wrong size was delivered and the product had to be exchanged. Hence, the condition is fulfilled for around 54% of the sample. The model, which now features a dichotomous outcome variable again, is estimated with a logit specification and the results can be directly read off as odds-ratios. In particular, without accounting for additional observable factors, the estimates suggest that the odds of facing a level of pre-redress detriment as high as (or higher than) the product value are 14.9% lower for women than for men (prob.: 54.1% vs. 58.1%). The odds of high detriment are further around 18.6% higher for consumers in rural areas (prob.: 60.0% vs. 55.8%) and around 31.4% higher for consumers facing difficulties to make ends meet (prob.: 61.9% vs. 55.2%). With regard to age, the estimated probabilities of facing high detriment are 58.8% at age 25 compared to 54.6% at age 50, respectively. In difference to the previous estimates (column 7 and 8), unemployment has no longer a significant effect on the detriment ratio and the effects of age and for consumers in rural areas cease to be significant after controlling for other observable differences. These and other selected results are summarised in table A.F.3.

Table A F.5. Implied probabilities: Socio-economic characteristics and the expected probability of facing *high pre-redress detriment*

Average		56.3% [56.7%]	
Age 25	58.8% ([57.6])	Age 50	54.6% ([56.1%])
Men	58.1% [58.1%]	Women	54.1% [55.1%]
Economic distress	61.9% [61.0%]	No economic distress	55.2% [55.9%]
Not unemployed	(56.4% [56.7%])	Unemployed	(54.1% [57.1%])
High Education	(56.2% [56.6%])	Low Education	(57.5% [58.4%])
Rural	60.0% ([59.1%])	Non-rural	55.8% ([56.4%])
COVID	[62.8%]	No COVID	[54.2%]

Note: Based on column 10 of table A.F.2. Results for column 9 in squared brackets. Results in round brackets are not statistically significant.
Source: OECD calculations.

Table (A.F.2) also gives rise to a number of additional results underlining the robustness of findings described in the body of the report. In particular, and in line with the findings for the incidence rate, the encountered pre-redress detriment seems to be significantly higher (after accounting for socio-economic and other observed differences) for consumers that have purchased a larger number of different product types over the last 12 months (columns 3 and 9). Whether the product was purchased from a foreign or domestic seller does not seem to have an impact on the relative level of pre-redress detriment encountered (columns 4, 7 and 9). Pre-redress detriment, relative to the product value, is however significantly higher when the purchase was linked to a subscription, rather than a one-off purchase (expected ratio: 185.3% vs. 102.6% for one-off purchases, based on column 7). Additionally, pre-redress detriment is significantly higher when the problem was attributed to COVID-19 (column 6, 7 and 9). In particular, column (9) suggests that the odds of encountering high pre-redress detriment are 43.9% higher in this case (prob.: 62.8% vs. 54.2%). The regression results also confirm a significantly higher level of pre-redress detriment for consumers that encountered several different types of problems (columns 6, 7 and 9). Consumers are further significantly more likely to face high levels of pre-redress detriment when they tend to agree that i) they usually choose who to purchase from based only on price and delivery conditions, rather than based on trust, ii) when faced with an unsatisfactory online consumer experience, they would take all possible steps to achieve a

better outcome, and iii) they do trust that a consumer protection authority will protect their interest if problems should occur (columns 5, 7 and 9).[53] Interestingly, whether consumers simply expect the terms and conditions to be acceptable or read all information available before engaging with an online purchase did not seem to have an impact on (relative) pre-redress detriment, after accounting for possible socio-economic differences. The results further suggest that the level of pre-redress detriment is particularly high when the problems faced involved payment issues, problems with terms and conditions or, above all, problems with cancellations. When the problems faced involved delivery or product issues, the level of pre-redress detriment remained significantly lower. As can be read-off the included fixed effects, pre-redress detriment was further lower for printed books, personal care products as well as food and beverages, but significantly higher for financial products (not shown).

Redress sufficiency

This section focuses on the magnitude of redress relative to the absolute amount of pre-redress detriment. This captures how successful individuals are, having faced a problem, in obtaining redress and how responsible sellers behave regarding redress when a consumer encounters a problem. The analysis in table A.F.6 is otherwise mostly identical to the previous section, with the only exception being the addition of specification (7), which considers the different actions that consumers have taken after encountering the problem (based on Q13). Columns (10) and (11) show the results from an alternative logit regression, using an indicator *full redress* as dependent variable, which is equal to one if redress (at least) fully covers pre-redress detriment and zero otherwise.

Table A F.6. Regression: Socio-economic characteristics and redress sufficiency

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Dependent variable:	Redress (ratio)	Redress (ratio)*	Redress (ratio)*	Redress (ratio)*	Redress (ratio)*	Redress (ratio)*	Redress (ratio)*	Redress (ratio)*	Redress (ratio)*	Full redress (1/0)	Full redress (1/0)
Female	-0.229	-0.00246	0.000744	0.00307	-0.0034	-0.00945	0.00595	0.00699	-0.00048	1.166***	1.220***
Age	-0.00193	-0.00025	-0.00020	0.00017	-0.0006	-0.0005	0.00024	-3.32e-06	-0.00011	1.003*	1.008***
Low education	-0.508	-0.0317	-0.0161	-0.0238	-0.0333	-0.0246	-0.00240	0.00841	-0.0163	1.117	1.096
Low ability to make ends meet	-0.366**	-0.0335**	-0.0351**	-0.0347**	-0.0273*	-0.0407**	-0.0403***	-0.0456***	-0.0462***	0.807***	0.759***
Unemployed	0.749	0.0259	0.0230	0.0301	0.0354	0.00691	0.0375	0.0357	0.0249	1.172	1.277**
Rural	0.203	-0.0200	-0.0198	-0.0261	-0.0170	-0.0128	-0.0321*	-0.0439**	-0.0245	0.882	0.854**
Recent purchase			0.0329					0.0149		0.987	
Product variety			0.00411**					-0.00103		0.984**	
High spending			0.00303					0.0130		1.013	
Rare purchases			0.00959					0.00481		1.101*	
Product value				1.49e-05				1.74e-05**		1.000	
Foreign Seller				-0.0724***				-0.0267**		0.933	
Subscription				0.0559***				0.0211		0.857**	
Q33_1 agree					-0.00023			-0.00896		0.928	
Q33_2 agree					0.0889***			0.0104		1.054	
Q33_3_agree					0.0302**			0.00397		1.050	
Q33_4_agree					0.0131			0.00937		1.124**	
Q33_5_agree					0.0481***			0.0429***		1.252***	
COVID-19-related						-0.00383		-0.0279**		0.629***	
Problem complexity						-0.00225		-0.0083*		0.935***	
Probl.: Price						-0.0494**		-0.0287		0.888	
Probl.: Payment						0.0259		0.0192		1.066	
Probl.: Delivery						-0.00210		0.0424***		1.431***	
Probl.: Product						0.105***		0.0923***		1.316***	
Probl.: T&C						-0.00802		-0.00842		0.868	
Probl.: Cancel.						0.0670***		-0.00749		0.940	
Probl.: Post sales						-0.0613***		-0.0387**		0.888	
Probl.: Scam						-0.0525**		-0.0329*		0.872	
Probl.: other						-0.0650**		-0.00115		1.551***	
Action: Q13_1							0.289***	0.289***		1.880***	
Action: Q13_2							0.344***	0.321***		1.673***	
Action: Q13_3							-0.0962***	-0.0860***		1.007	
Action: Q13_4							-0.0190*	-0.0223*		0.952	
Action: Q13_5							-0.0121	0.0123		0.920	
Action: Q13_6							0.116***	0.100***		1.182***	
Action: Q13_7							-0.0321*	-0.0100		0.816**	
Action: Q13_8							-0.0495**	-0.0448**		0.682***	
Action: Q13_9							-0.0374	-0.00668		0.925	
Action: Q13_10							-0.00727	0.0212		1.023	
Action: Q13_11							0.0207	0.0624*		1.084	
Action: Q13_12							-0.151***	-0.156***		0.551***	
Action: Q13_99							-0.360***	-0.364***		0.585***	
Country FX	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Product FX	no	no	no	yes	no	no	no	yes	no	yes	no
Observations	8,739	8,739	8,484	8,219	8,158	8,076	8,739	7,011	7,011	7,890	7,890
Adjusted R2	0.015	0.016	0.023	0.035	0.026	0.043	0.220	0.278	0.038		

Note: Specifications (1) shows the results of a linear probability model where the dependent variable is the ratio of redress over pre-redress detriment. In specifications (2)-(9) this ratio has been IHS transformed (*). Specifications (10)-(11) show the results of a logit model (odds ratios), where the dependent variable is a dummy equal to 1 if redress fully compensates for pre-redress detriment suffered. Robust standard errors; *** p<0.01, ** p<0.05, * p<0.1.
Source: OECD.

As before, all the different groups of added variables tend to increase the explanatory power of the model significantly, with the largest increase of the r-squared now following the inclusion of the actions taken (column 7). Compared to the previous analysis for the magnitude of detriment, the results from the linear regressions (columns 1-8) suggest a more limited role for socio-economic characteristics in explaining redress sufficiency. The absolute size of the coefficients tends to be significantly smaller and only the coefficients on the indicator capturing economic distress (*difficulties to make ends meet*), and (after accounting for the actions taken) *rural consumers*, remain statistically significant predictors of redress sufficiency. Taken at face value, the results in column (9) suggest that the redress-to-detriment ratio for individuals in economic distress, evaluated at the means of all variables, is around 55.5% for individuals facing difficulties to make ends meet, compared to 60.9% for other individuals (see Table A.F.7). After accounting for actions taken, the values are similar with regard to rural vs. non-rural consumers (55.5% vs. 60.6%, column 8). The implied effect size from column (9) is almost identical to that of column (8), which accounts for a number of other observable differences between individuals, including the actions taken to obtain redress. Thus, while doing a good job in explaining redress sufficiency (and hence enhancing the explanatory power of the model), the added variables in this specification can at best partially explain why individuals in economic distress (or in rural areas, see column 8) are less successful in obtaining redress. One explanation for this finding could be, for example, that consumers in economic distress (or those in rural areas) are *less effective* in taking action (e.g. they may face more difficulties in matching the right action to the problem at hand), despite on average taking similar actions than other consumers.

Table A F.7. Implied probabilities: Socio-economic characteristics and redress sufficiency

Average		60.0% [60.0%]	
Economic distress	55.5% [55.6%]	No economic distress	60.9% [60.9%]
Rural	[55.5%]	Non-rural	[60.6%]
COVID-19-related	[57.7%]	Non-COVID	[61.0%]
Foreign seller	[57.7%]	Domestic seller	[60.8%]

Note: Based on column 9 of table A.F.6. Results for column 8 in squared brackets.
Source: OECD calculations.

The role of socio-economic characteristics is more pronounced when shifting emphasis towards the variation between respondents that managed to reach the threshold of *full redress* and those that did not (columns 10 and 11). Now, similar to the results for the detriment-ratio, gender, age, unemployment and living in rural areas all become significant predictors of redress sufficiency again, together with the economic distress variable. In particular, women (47.4% vs. 42.5%), older individuals (46.6% at age 50 vs 41.9% at age 25) and unemployed persons (50.5% vs. 44.4%) obtain full redress with a higher probability, whereas individuals that face difficulties to make ends meet (39.1% vs. 45.8%) and those in rural areas (41.3% vs. 45.2%) find it relatively more difficult. Education, again, does not seem to be statistically significantly correlated with redress sufficiency after accounting for the other socio-economic dimensions. Accounting for other observable differences between respondents lowers the absolute size of all effects, though overall to a

much lesser degree than for the pre-redress detriment-to-price ratio. Again, the association with particular problem types seems a key driver in this case. In particular, the higher redress sufficiency for unemployed and the lower redress sufficiency for the respondents in rural areas cease to be statistically significantly different from zero after accounting for general e-commerce patterns, the type of product purchased, problem faced or action taken.

Table A F.8. Implied probabilities: Socio-economic characteristics and the expected probability of obtaining *full redress*

Average		44.8% [44.1%]	
Age 25	41.9% [42.9%]	Age 50	46.6% [44.9%]
Men	42.5% [42.4%]	Women	47.4% [46.2%]
Economic distress	39.1% [39.7%]	No economic distress	45.8% [45.0%]
Not unemployed	44.4% ([43.9%])	Unemployed	50.5% ([47.9%])
High Education	(44.6% [44.0%])	Low Education	(46.9% [46.7%])
Rural	41.3% ([41.4%])*	Non-rural	45.2% ([44.5%])*
COVID-19-related	[36.2%]	No COVID	[47.4%]
Subscription	[41.1%]	One-off purchase	[44.9%]

Note: Based on column 11 of table A.F.6. Results for column 10 in squared brackets. Round brackets indicate that the differences are not significant at the 10% level (* level of significance: 12.3%).
Source: OECD calculations.

Across all specifications, the coefficients of variables accounting for other than socio-economic observable differences are also telling. In particular, it turns out that problems related to COVID-19 not only involve higher detriment on average, but they also seem to be more difficult to be resolved (prob.: 36.2% vs. 47.4%; column 11). Additionally, for problems involving foreign sellers, which, as seen previously, involve similar detriment on average, it seems more difficult to obtain redress (redress ratio: 57.7% vs. 60.8%, based on column 8). The results for subscriptions are mixed, with columns (8) and (4) suggesting a higher redress ratio, if anything, but column (10) suggesting a lower propensity to obtain full redress. Interestingly, consumers that tend to read all available information to properly assess the risk involved with an online purchase (Q33_5), while not facing lower detriment on average, are significantly more likely to obtain full redress (prob.: 45.0% vs. 39.6%; column 11). Consumers that "take all possible steps to achieve a better outcome or receive compensation" when problems occur (Q33_2) also tend to obtain higher redress (see column 5) but the effect disappears once accounting for the actual steps taken in the case of the problem at hand. Accordingly, responses to this question may have been determined by the experienced problem at hand rather than representing a pre-transaction attitude. Interestingly, consumers that usually expect T&Cs to be acceptable, rather than reading them before every online purchase (Q33_4), also tend to be more likely to obtain full redress.

With regard to the actual actions taken, it seems that cancelling the purchase within the allowed time or returning the product are the most effective means to avoid post-redress detriment, increasing the probability of full redress from 40.5% to 56.1% and from 41.2% to 53.9% respectively. Asking the seller for a repair, replacement or refund also seems to be associated with higher chances to obtain full redress (prob.: 47.1% vs. 43.0%). When consumers had to ask the seller for compensation for damages and losses (prob.: 39.7% vs. 44.7%), complained to a government body (prob.: 35.7% vs. 44.9%) or left a review (prob.: 31.9% vs. 45.9%), it was typically associated with a lower probability of obtaining full redress. Rather than a consequence of the action taken, this outcome again seems to pick up the reverse causality, where individuals facing higher detriment are more likely to take

certain actions. This interpretation would also be in line with reviews being used in particular as a last resort when consumers wish to express their negative (rather than positive) experiences with the resolution of a problem. Consumers that purchased a replacement product at their own expense or complained to a seller also obtained lower redress overall (columns 7 and 8). Finally, and as expected, not taking any action also significantly reduced the probability of obtaining full redress on average (prob.: 32.4% vs. 45.0%).

The redress-ratio further tends to be higher when problems are related to the product itself or its delivery and lower for problems related to the price or post-sales, and for scams (columns 6 and 8). The results in column 10 confirm that problems with delivery or the product itself tend to be more frequently fully resolved, increasing the probability of full redress from 40.9% to 49.7% and from 41.2% to 48.0% respectively, whenever they are involved. Additionally, problems with the purchase of medicine were significantly less frequently fully resolved (prob.: 35.7%, compared to 44.1% on average; based on column 10).[54] Finally, the probability of fully resolving problems were particularly high in Australia (prob.: 47.1%) Canada (prob.: 51.8%), Japan (prob.: 51.2%), Singapore (prob.: 49.5%) and Korea (prob. 49.3%), even after accounting for socio-economic differences, purchase patterns, the type of products purchased, problems faced and the actions taken – therefore likely reflecting a mix of more effective problem resolution mechanisms and cultural factors (based on column 10, odds ratios omitted).

Linking socio-economic differences to problems, attitudes and actions taken

This section provides some complementary analysis relating socio-economic differences to other observable and policy relevant differences, including i) the types of problems quoted by the consumer ii) consumer attitudes and iii) actions taken after encountering a problem. The results shed more light on why some consumers (e.g. male, young, employed, in economic distress or living in rural areas) face higher detriment, as measured by indicators such as the incidence rate, the relative pre-redress detriment ratio or redress sufficiency, than others. All of the following regressions are logit specifications that fully account for country specific effects, differences in the consumers' general e-commerce patterns (e.g. purchase frequency, variety of products etc.), the product type and value of the problematic purchase, whether the purchase was COVID-19-related and whether the product was purchased from a domestic or foreign seller.

Table A.F.9. shows how the odds ratios for quoting each of the eight main problem types vary by socio-economic characteristics. As expected, more "vulnerable" consumers (here in particular male and younger consumers, as well as those in economic distress or those living in rural areas) tend to cite most problem types more frequently than their counterparts. However, Table A.F.10 now also explicitly links these consumer groups to certain types of problems. For example, it shows that the probability of quoting payment issues (24.8% vs. 17.1%), problems with T&Cs (18.1% vs. 12.2%), the price (24.8% vs. 17.1%) or scams (20.1% vs. 13.7%) are particularly high for consumers that face difficulties to make ends meet. The probability of (allegedly) falling for scams is also significantly higher for individuals living in rural areas (20.1% vs. 13.7%). As can be seen from column (6) of tables A.F.3 and A.F.6, these are precisely the types of problems that tend to be associated with higher *pre-redress detriment to price* or lower *redress to pre-redress detriment* ratios. In contrast, the same type of problems are significantly less frequently encountered, or at least quoted, by women or older consumers. The table further confirms that when the consumer considered the problems encountered directly related to COVID, the probability of problems with, in particular, T&Cs (27.2% vs. 9.4%) or the Price (33.4% vs. 13.9%) being involved increases considerably. Problems with T&Cs

(26.9% vs. 10.6%) and payment issues (32.2% vs. 15.40%) also are more frequent for subscriptions, and purchases from foreign sellers significantly increase the probability of scams (20.1% vs. 13.1%) – after accounting for differences in general e-commerce patterns, country specific effects or socio-economic differences.

Table A F.9. Regression: Socio-economic characteristics and problem types

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Problem Type	Price	Payment	Delivery	Product	T&C	Cancell.	Post-sales	Scam
Female	0.718***	0.821***	0.986	0.905**	0.733***	0.956	0.963	0.710***
Age	0.983***	0.987***	1.000	0.997*	0.990***	0.998	0.998	0.992***
Low education	1.259*	0.977	1.040	1.018	1.214	1.043	1.083	1.062
Low ability to make ends meet	1.595***	1.652***	1.250***	1.228***	1.588***	1.277***	1.482***	1.592***
Unemployed	0.993	0.809	0.959	1.019	0.897	1.026	0.880	0.740**
Rural	1.217**	1.181*	1.089	1.000	1.203*	1.220**	1.118	1.469***
Recent purchase	0.593***	0.534***	0.746***	0.676***	0.458***	0.638***	0.597***	0.533***
Product variety	1.008	1.001	0.981***	1.018***	1.006	1.013*	1.014*	0.996
High spending	0.862**	0.862**	1.122**	1.026	0.888	0.905*	0.952	0.867**
Rare purchases	0.949	0.900	0.994	0.887**	0.959	1.006	0.872**	0.943
Product value	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Foreign seller	1.129*	1.094	1.099	0.943	1.212**	1.168**	1.200***	1.671***
COVID-19-related	3.105***	2.857***	2.457***	0.862***	3.579***	2.381***	2.359***	2.822***
Subscription	2.435***	2.612***	1.289***	1.337***	3.123***	2.083***	2.159***	2.228***
Country FX	yes	yes	yes	yes	yes	yes	yes	yes
Product FX	yes	yes	yes	yes	yes	yes	yes	yes
Observations	8,406	8,406	8,406	8,406	8,406	8,406	8,406	8,406

Note: Specifications (1)-(8) show the results of a logit model (odds ratios), where the dependent variable in each column is a dummy equal to 1 if a certain type of problem has been faced by the consumer. Robust standard errors; *** p<0.01, ** p<0.05, * p<0.1.
Source: OECD.

Table A F.10. Implied probabilities: Socio-economic characteristics and the expected probability of encountering a particular type of problem

		Price	Payment issues	Delivery	Product	T&Cs	Cancellations	Post Sales	Scams
		Redress	Detriment			Detriment	Detriment	Redress	Redress / Detriment
Average		18.20%	18.10%	36.30%	43.00%	13.00%	25.20%	21.00%	14.60%
Difficulty making ends meet	Yes	24.80%	25.30%	40.70%	47.30%	18.10%	29.20%	27.00%	20.10%
	No	17.10%	17.00%	35.50%	42.20%	12.20%	24.40%	20.00%	13.70%
Rural	Yes	20.90%	20.40%			15.00%	28.60%		19.30%
	No	17.80%	17.80%			12.80%	24.70%		14.00%
Age	25	22.50%	21.20%		44.10%	14.80%			16.10%
	50	15.80%	16.30%		42.30%	12.00%			13.70%
Gender	Male	20.60%	19.50%		44.10%	14.70%			16.60%
	Female	15.70%	16.60%		41.70%	11.20%			12.40%
Education	Low	21.60%							
	High	17.90%							
Unemployed	Yes								11.40%
	No								14.80%
COVID-19-related	Yes	33.40%	32.00%	52.10%	40.40%	27.20%	38.50%	33.00%	26.40%
	No	13.90%	14.10%	30.60%	44.00%	9.40%	20.80%	17.30%	11.30%
Foreign seller	Yes	19.60%		37.90%	41.90%	14.70%	27.40%	23.40%	20.10%
	No	17.70%		35.70%	43.30%	12.50%	24.40%	20.30%	13.10%
Subscription	Yes	31.00%	32.20%	41.10%	48.70%	26.90%	37.60%	32.90%	24.30%
	No	15.60%	15.40%	35.10%	41.50%	10.60%	22.40%	18.50%	12.60%

Note: Based on the results of table A.F.9. Only significant differences shown.
Source: OECD calculations.

Table A.F.11 shows the results of a similar analysis considering consumer attitudes. Key differences seem to exist with regard to the first attitude question (column 1), suggesting that consumers in economic distress (69.6% vs. 64.3%), men (67.4% vs. 62.5%), consumers living in rural areas (68.4% vs. 64.8%) and younger consumers (69.4% at age 25 compared to 62.4% at age 50) are significantly more likely to choose who they purchase from based only on price and delivery conditions, rather than try to purchase from a seller they know and trust. As confirmed in table A.F.3, this attitude tends to be associated with significantly higher (pre-redress) detriment ratios. It is also interesting to note in this context, that consumers directly associating the problems they faced with the COVID-crisis, were significantly more likely to associate themselves with purchase decisions based on price and delivery conditions, rather than trust (73.4% compared to 61.7%), which can be traced back to those consumers being more vulnerable on average (see below).

Table A F.11. Regression: Socio-economic characteristics and consumer attitudes

	(1)	(2)	(3)	(4)	(5)
Dependent Variable	Q33_1 agree	Q33_2 agree	Q33_3_agree	Q33_4_agree	Q33_5_agree
	Price based purchases	Taking all steps	Trust government	Expect T&Cs to be acceptable	Read all information
Female	0.807***	1.032	0.880***	0.926	1.230***
Age	0.988***	1.019***	1.000	1.002	0.998
Low education	0.971	1.142	0.890	1.081	1.062
Low ability to make ends meet	1.269***	0.936	1.064	0.943	0.825**
Unemployed	0.875	1.101	0.891	0.856	0.976
Rural	1.177**	0.908	0.927	0.989	1.010
Recent purchase	1.168	1.427***	1.007	1.184	1.208
Product variety	1.004	1.029***	1.009	1.029***	1.056***
High spending	0.757***	0.994	0.860***	1.004	0.973
Rare purchases	1.131**	0.978	1.090	1.016	0.988
Product value	1.000	1.000	1.000	1.000	1.000
Foreign seller	0.998	0.758***	0.786***	0.797***	0.783***
COVID-19-related	1.715***	1.296***	1.486***	1.228***	0.989
Subscription	1.212***	0.911	1.203***	1.020	0.957
Country FX	yes	yes	yes	yes	yes
Product FX	yes	yes	yes	yes	yes
Observations	8,306	8,290	8,166	8,296	8,281

Note: Specifications (1)-(8) show the results of a logit model (odds ratios), where the dependent variable in each column is a dummy equal to 1 if a certain type of problem has been faced by the consumer. Robust standard errors; *** p<0.01, ** p<0.05, * p<0.1.
Source: OECD.

Significant differences are also apparent from column (5), suggesting that men (83.7% vs. 86.4%) and consumers in economic distress (82.8% vs. 85.4%) tend to be less likely to read all the available information (e.g. online reviews, quality certificates) to properly assess the risk involved with an online purchase. While this doesn't seem to have a significant impact on the (relative) amount of detriment that consumers face (table A.F.3), it significantly reduces redress sufficiency, highlighting the potential importance of readily available and easy to understand information on the available redress mechanisms to consumers. Interestingly, there seem to be no substantial differences among socio-economic groups when it comes to the likelihood of reading terms and conditions, which tends to be positively related to the likelihood of obtaining full redress (see table A.F.6). The results further suggest that the probability for men to trust that the government, or another consumer protection authority, will protect their interests if problems should occur, are significantly higher than for women (62.6% vs. 59.5%). However, the effects on post-redress detriment are unclear, given that this attitude is associated with higher average (pre-redress) detriment (see table A.F.3) but also higher redress sufficiency (see table A.F.6).

Table A F.12. Implied probabilities: Socio-economic characteristics and consumer attitudes

		Type 1	Type 2	Type 3	Type 4	Type 5
		Price based purchases	Taking all steps	Trust government	Expect T&Cs to be acceptable	Read all information
Average		65.20%	79.70%	61.20%	73.80%	85.00%
Difficulty making ends meet	Yes	69.60%				82.80%
	No	64.30%				85.40%
Rural	Yes	68.40%				
	No	64.80%				
Age	25	69.40%	74.80%			
	50	62.40%	82.50%			
Gender	Male	67.40%		62.60%		83.70%
	Female	62.50%		59.50%		86.30%
Education	Low					
	High					
Unemployed	Yes					
	No					
COVID-19-related	Yes	73.40%	82.60%	67.60%	76.50%	
	No	61.70%	78.50%	58.40%	72.70%	
Foreign seller	Yes		76.10%	56.80%	70.30%	82.50%
	No		80.80%	62.50%	74.80%	85.70%
Subscription	Yes	68.60%	78.50%	64.60%		
	No	64.30%	80.00%	60.20%		

Note: Based on the results of table A.F.9. Only significant differences shown.
Source: OECD calculations.

Finally, column (2) suggests that the probability for older consumers to consider themselves highly active when it comes to the problem resolution, in particular, "to take all possible steps to achieve a better outcome or receive compensation when faced with an unsatisfactory online consumer experience", is significantly higher (82.5% at age 50 vs. 74.8% at age 25). However, Table A.F.13 suggests that the reality may be a bit different, with the probability of *not* having taken any action being actually slightly higher for consumers at age 50 (5.6%) than for consumers at age 25 (4.6%). The probability of taking action is also decreasing in age for many of the more specific actions proposed in the survey. Interestingly, men, consumers in economic distress and those living in rural areas, who face higher detriment on average, all do not seem significantly less likely to have taken no action at all, suggesting that the actions they have taken may not have brought about the same level of success as for other consumers.

The remaining findings in Table A.F.13 are less clear cut, in particular because they may partly reflect different reactions to different types of problems (table with predicted probabilities omitted). Thus, for example, the two activities that seem particularly frequent among consumers in economic distress are complaints to a government body or public consumer protection organisation (prob.: 7.5% vs. 5.9%) and purchasing a replacement or repairing the product at their own expense (prob.: 14.0% vs. 11.4%). Both activities tend to associated with significantly lower redress sufficiency (table A.F.6). However, once accounting for the type of problems faced by the consumer (not shown), only the latter remains a statistically significant distinguishing characteristic, suggesting that the tendency to complain to a government body may be a reflection of the more serious problems faced overall (see table A.F.3). The fact that consumers in economic distress (but also men and younger consumers and those living in rural areas) are significantly more likely to purchase a replacement for a problematic good at their own expense, even after accounting for the

type of product purchased and the problem faced, could suggest, for example, a lower willingness (or ability) for those consumers to wait until the seller initiates redress and instead prefer (or are required to) look and pay for a swift replacement on their own account.

Other findings that seem noteworthy:

- Consumers living in rural areas are significantly more likely to bring their case to court (2.2% vs. 1.6%) or to withhold payments (8.6% vs. 6.3%), and significantly less likely to leave a review (7.1% vs. 11.1%) or ask the seller for a replacement, repair or refund (22.4% vs. 27.2%), suggesting slightly more drastic responses to problems overall.
- Consumers with low education are significantly more likely *not* to take any action at all (8.0% vs. 5.0%) and, in particular, significantly less likely (4.0% vs. 6.3%) to make a complaint to a government body, potentially suggesting that the mechanisms in place to make such complaints may currently still be too complicated for such consumers.
- Product returns (19.6% vs. 23.1) and cancellations (20.5% vs. 23.1%) are significantly less likely responses, if the purchase involved a foreign (rather than a domestic) seller, whereas the probability of engaging in an out of court dispute settlement increased significantly (from 1.5% to 2.6%), indicating the higher relevance of this channel for cross-border transactions.
- If consumers considered the problem a direct consequence to the COVID-19 crisis, the probability of *not* engaging in any action is reduced significantly, from 6.2% to 3.3%. In this case, consumers were, in particular, more likely to engage in relatively drastic actions, such as taking the case to court (prob.: 3.7% vs. 1.2%) or withholding payments (prob.: 11.4% vs. 5.2%). This is likely a consequence of the higher average (pre-redress) detriment faced under these circumstance (see table A.F.3).
- Similar results also hold for problems related to subscriptions, which reduced the probability of not taking any action from 5.8% to 3.3% and increased the probability of more drastic action, e.g. from 1.4% to 3.7% for out-of-court settlement engagement, from 1.4% to 2.9% for taking the case to court and from 5.6% to 11.4% for withholding payments.

Table A F.13. Regression: Socio-economic characteristics and actions taken

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
VARIABLES	Q13_99	Q13_1	Q13_2	Q13_3	Q13_4	Q13_5	Q13_6	Q13_7	Q13_8	Q13_9	Q13_10	Q13_11	Q13_12
	No action	Cancelled	Returned	Purchased replacement	Made complaint	Withheld payment	Asked seller for repair, replacement, refund	Asked seller for compensation	Complaint: government body / public organisation	Complaint: private consumer organisation	Taken case to court	engaged in out of court dispute settlement	left a review
Female	1.091	0.946	0.926	0.807***	1.082	0.798***	1.006	0.995	0.819**	0.861	0.772*	0.967	1.070
Age	1.008**	0.999	0.994***	0.986***	1.008***	0.992**	1.000	0.990***	0.987***	0.987***	0.987**	0.990*	1.000
Low education	1.637***	1.032	0.930	0.920	0.907	0.742	1.098	1.205	0.626**	0.891	0.597	1.539	1.221
Low ability to make ends meet	0.837	1.131*	1.132*	1.269***	0.917	1.007	0.959	1.075	1.297**	1.115	0.956	1.132	1.008
Unemployed	1.123	1.012	1.016	0.840	1.228**	0.724	0.882	1.080	0.772	0.784	0.597	0.626	0.850
Rural	0.995	1.092	1.151	1.209*	0.876*	1.404***	0.775***	0.914	1.093	1.073	1.436*	0.870	0.617***
Recent purchase	0.968	1.499***	1.026	0.812	1.195	0.619***	1.060	0.817	0.901	0.692**	0.535***	0.931	1.211
Product variety	0.901***	1.031***	1.035***	1.027***	1.047***	1.041***	1.043***	1.061***	1.037***	1.088***	1.045**	1.094***	1.060***
High spending	0.885	0.887**	0.986	1.102	1.236***	0.879	1.155**	1.026	1.061	0.911	1.185	0.946	0.970
Rare purchases	1.177	1.199***	1.020	0.922	0.874**	0.776**	0.836***	0.844*	0.847	0.925	1.000	0.761	0.920
Product value	1.000	1.000	1.000	1.000	1.000	1.000**	1.000	1.000*	1.000	1.000	1.000	1.000	1.000
Foreign seller	0.994	0.855**	0.811***	1.057	1.092	0.966	1.073	1.043	1.066	1.116	1.008	1.734***	1.262***
COVID-19-related	0.517***	1.648***	1.123*	1.834***	0.894**	2.329***	0.887*	1.548***	1.901***	2.069***	3.316***	1.807***	0.751***
Subscription	0.554***	1.082	1.047	1.732***	0.856**	2.168***	1.004	1.317***	1.806***	1.789***	2.144***	2.693***	0.695***
Country FX	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Product FX	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	8,406	8,406	8,406	8,406	8,406	8,406	8,406	8,406	8,406	8,406	8,406	8,406	8,406

Note: Specifications (1)-(13) show the results of a logit model (odds ratios), where the dependent variable in each column is a dummy equal to 1 if a certain type of action has been taken by the consumer. Robust standard errors; *** p<0.01, ** p<0.05, * p<0.1.
Source: OECD.

Annex G. Aggregate detriment by country – calculation details

Table A G.1. Aggregate Detriment by Country – Calculation details

Country	Avg post-redress detriment	% of online shoppers experiencing problems	% popul-ation online	% of online population who shop online	Experienced problems %	18+ population	Consumers experiencing problems	Total detriment (in millions)	Final Household Consumption Expenditure (in millions)	Detriment as % of Final Household Consumption Expenditure	Detriment per capita
A	B	C	D	E	F=C*D*E	G	H=F*G	I=B*H	J	I/J	I/G
Chile	CLP 49 179	67%	82%	79%	43%	14 508 400	6 297 023	CLP 309681.3	CLP 118 427 996.8	0.26%	CLP 21345.0
Mexico	MXN 995.2	68%	70%	78%	37%	85 250 000	31 651 620	MXN 31499.7	MXN 14 740 176.7	0.21%	MXN 369.5
Türkiye	TRY 156.1	57%	74%	87%	37%	58 158 000	21 342 009	TRY 3 332.2	TRY 2 863 969.1	0.12%	TRY 57.3
Germany	EUR 79.7	40%	88%	89%	31%	69 554 000	21 789 877	EUR 1736.7	EUR 1 707 978	0.10%	EUR 25.0
Israel	ILS 273.5	53%	87%	92%	42%	5 932 800	2 516 765	ILS 688.3	ILS 693 767	0.10%	ILS 116.0
Italy	EUR 52.5	47%	74%	90%	31%	50 424 000	15 783 720	EUR 828.6	EUR 958 936.2	0.09%	EUR 16.4
Norway	NOK 740.4	44%	98%	86%	37%	3 944 000	1 462 561	NOK 1082.9	NOK 1 500 036	0.07%	NOK 274.6
USA	USD 100.6	52%	88%	82%	38%	254 013 600	95 314 031	USD 9588.6	USD 14 047 565	0.07%	USD 37.7
Korea	KRW 30 566	49%	96%	89%	42%	43 950 400	18 400 099	KRW 562417.4	KRW 897 449 200	0.06%	KRW 12796.6
Singapore	SGD 37.7	57%	89%	92%	47%	3 289 600	1 535 309	SGD 57.9	SGD 154 845.7	0.04%	SGD 17.6
Canada	CAD 38.6	44%	93%	86%	35%	29 851 600	10 505 136	CAD 405.5	CAD 1 261 278	0.03%	CAD 13.6
Japan	JPY 3 510.8	23%	91%	85%	18%	107 553 600	19 134 323	JPY 67176.8	JPY 289 498 700	0.02%	JPY 624.6
Australia	AUD 30.7	50%	87%	89%	39%	19 333 000	7 484 771	AUD 229.8	AUD 1 067 593	0.02%	AUD 11.9

Sources: ITU (2020), World Telecommunication/ICT Indicators Database (database), retrieved from https://data.worldbank.org/indicator/IT.NET.USER.ZS; OECD (2020), Employment and Labour Market Statistics (database), https://doi.org/10.1787/lfs-data-en (OECD, 2022[20])
OECD (2022), "Final Consumption Expenditure of Households", Annual National Accounts (database), https://doi.org/10.1787/data-00005-en.

Annex H. Likelihood of using the seller again: redress, time loss and stress

Table A.H.1 shows the output from a regression, where the dependent variable is an indicator variable equal to 1 if the consumer thought it was likely that he would use the seller again (Q32 = 1 or 2) and zero otherwise. Independent variables are: an indicator of *Full Redress*, a set of indictor variables capturing the different response options to Q15 (time loss) and Q16 (emotional stress) respectively (excluding *don't knows*), and the interaction terms between each of the Q15 and Q16 indicators and *Full Redress*. The regression further controls for country and product specific fixed effects. The marginal effects cited in the body of the report are evaluated for *Full Redress* = 1 and i) either at the mean of all other variables, or ii) at Q16 = 4 and Q15 = 5, respectively.

Table A H.1. Regression: Likelihood of using the seller again as a function of redress, time loss and stress

Dependent Variable:	Use Again = 1 if (Q32 =1 or Q32 = 2)
Full Redress	0.164***
Q15: No time at all	-0.0527
Q15: 1 to 2 hours	0.00983
Q15: 3 to 4 hours	0.00585
Q15: 5 to 10 hours	0.0338
Q15: 11 to 20 hours	0.0191
Q15: More than 20 hours	-0.109***
Full Redress * Q15: No time at all	-0.0214
Full Redress * Q15: 1 to 2 hours	-0.0619**
Full Redress * Q15: 3 to 4 hours	-0.0576*
Full Redress * Q15: 5 to 10 hours	-0.144***
Full Redress * Q15: 11 to 20 hours	-0.149***
Full Redress * Q15: More than 20 hours	-0.0601
Q16: Moderately stressed	-0.0662***
Q16: Quite a lot	-0.221***
Q16: Extremely	-0.238***
Full Redress * Q16: Moderately stressed	-0.0626**
Full Redress * Q16: Quite a lot	-0.0322
Full Redress * Q16: Extremely	-0.0503
Country FX	Yes
Product FX	Yes
Observations	8,846
Adjusted R-squared	0.096

Note: Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Annex I. Final OECD online survey on measuring consumer detriment

Intro

Good morning/afternoon;

We are looking for people to share their experiences around online purchases of goods and services for private purposes. The survey should last around 15 minutes.

Explanatory note:

Please consider all **online purchases of goods and services**, including digital products (e.g. media streaming), ordered via a website, online marketplace or mobile app. This includes but is not limited to:

Goods:

e.g. used goods, clothing, technical equipment, groceries, medicine etc.

Services or digital products:

e.g. e-newspaper, media streaming services, mobile apps, plane tickets, ride-sharing, cleaning services etc.

Please include:

purchases from private persons via website or app (e.g. eBay, Uber)

regular online purchases: e.g. monthly subscriptions

Please exclude:

purchases ordered via e-mail, SMS or MMS, or purchases which were ordered over the phone or in a shop and were simply confirmed online.

Purchases made for business rather than personal purposes

It doesn't matter how you paid for the good or service (e.g. credit card, bank transfer, etc.).

Personal Data Protection Notice:

The OECD is committed to protecting the personal data it processes in accordance with its Personal Data Protection Rules. Under these Rules, you have rights to access and rectify your personal data, as well as to object to its processing, request erasure, and obtain data portability in certain circumstances. For more information, click here or contact the Data Protection Officer.

Section 1: Screener

Q36. What is your gender?

SA

1.Male..... .....

2.Female..... .....

98. Another gender..... .....

Q37. What is your age?

Numeric

1.Under 18..... .....CLOSE

2.18 to 24..... .....

3.25 to 34..... .....

4.35 to 44..... .....

5.45 to 54..... .....

6.55 to 64..... .....

7.65 and over..... .....

Q38. What is your current employment status?

SA

1.Self-employed/Employed..... .....

2.Unemployed ....

3.Engaged in home duties..... .....

4.Student ....

5.Retired..... .....

6.Other..... .....

99.Prefer not to say ....

Q39. Would you say you live in a:

SA

1.Rural area or village..... .....

2.Small or medium-sized town..... .....

3.A city..... .....

97.Don't know ....

Q40. What is the highest level of education you have achieved? [Tailored to local country]

SA

1.Some or lower secondary education ....

2.Upper secondary education completed ....

3. Some post-secondary (university, college or vocational education)..... .....

4. University or vocational certification completed (e.g. Bachelors or equivalent)..... .....

5. Masters or equivalent ....

6. Doctorate or equivalent..... .....

99.Prefer not to answer ....

Q41. What is your total annual household income from all sources, before tax and other deductions? [Tailored to the specific country.]

SA

1.Less than EUR 20 000..... .....

2.EUR 20 000 to EUR 39,999..... .....

3.EUR 40 000 to EUR 59,999..... .....

4.EUR 60 000 to 79,999 ....

5.EUR 80 000 or more..... .....

97.Don't know/Prefer not to say..... .....

Q1. When did you last buy or order goods or services for private use online?

SA

1.Up to a one month ago ..... CONTINUE

2.More than a month, up to three months ago..... CONTINUE

3.More than three months, up to one year ago..... CONTINUE

4.More than a year ago..... SKIP TO Question Q42 and after replying Q42 mark as short completes

5.Never bought or ordered online ..... SKIP TO Question Q42 and after replying Q42 mark as short completes

97.Don't know..... SKIP TO Question Q42 and after replying Q42 mark as short completes

Q2. Which, if any, of the following types of goods or services have you purchased online **in the last 12 months**? SELECT ALL THAT APPLY

RANDOMISE ORDER EXCEPT OTHER AND NONE

MA

Q3. And which, if any, of the following did you **purchase online in the last 12 months due to COVID-19**, for instance because you had to stay indoors, or because it was personal protective equipment? SELECT ALL THAT APPLY

RANDOMISE ORDER EXCEPT OTHER AND NONE

MA

DISPLAY ALL THOSE SELECTED AT Q2

	Q2	Q3
1.**Clothing, footwear, sporting goods or accessories** (e.g. bags, jewellery) – **include** children toys or childcare items (e.g. nappies, bottles, baby strollers)	.....	.....
2.**Furniture, home accessories or gardening products** - **include** cleaning products (e.g. detergents, cleaning cloths)	.....	
3.**Printed books, magazines or newspapers; CDs, vinyl** etc.; DVDs, Blue ray etc. – **exclude** downloads or streaming	.....	
4.**Computer equipment, consumer electronics** (e.g. laptop, cameras, mobile phone, TVs, smart speakers) or **household appliances** (e.g. refrigerator)	.....	.....
5.**Personal care products** (e.g. cosmetics, beauty or wellness products; personal hygiene products etc.)	.....	.....
6.**Medicine** (including vitamins or food supplements) - **include** subscriptions; **exclude** online medical consultations or renewal of prescriptions	.....	.....
7.**Food, beverages or groceries** - **include** subscriptions and delivery or pickup from restaurants or supermarkets	.....	.....
8.**Bicycles, mopeds, cars**, or other vehicles or spare parts	.....	
9.**Downloads or streaming services** (e.g. music, films, TV series, images, e-books, online newspapers/magazines, online games, software etc.) - **include** media subscriptions (e.g. Netflix, Microsoft Office), mobile apps (e.g. fitness, language learning, weather etc.) or software upgrades	..	.....
10.**Tickets or bookings for entertainment events** (e.g. sports, cinemas, theatres, concerts, etc.) - **include** subscriptions for regular events	.....	.....
11.**Rideshare services** (e.g. Uber, BlaBlaCar)	.....	.....

12.**Other transportation services** (e.g. flight, cruise ship or train tickets, car rental such as Sixt, Europcar).....

11 AND 12 TO BE KEPT TOGETHER IN THIS ORDER

13.**Accommodation rental** (e.g. hotel reservations) - **include** purchases from private persons via website or app such as AirBnB ....

14.**Telecommunication services** (e.g. subscriptions to the Internet or mobile phone connections) ....

15.**Electricity, water or heating supply, waste disposal or similar services**..... .....

16.**Household services** (e.g. cleaning, babysitting, repair work, gardening) – **include** purchases from private person via website or app (e.g. Facebook Marketplace)..... .....

17.**Financial products** (e.g. insurance products, bank credit, shares)..... .....

98.**Other goods or services** (please specify): ....

None of the above (for Q3) ....

Q4. Does looking at **the following types of problems** remind you of any problems you have personally experienced in the last 12 months with goods or services **purchased online**, for which you believe you had a legitimate cause for complaint? RANDOMISE ORDER

SA per row

1.**Problems with price or tariff** ....

CLICK FOR EXAMPLES(link to be showed and once clicked and show the examples in a text box) : e.g. final price or fees being higher than indicated, hidden costs or fees, offer price no longer being available, price changing depending on your personal details such as where you live, complex tariff structure

2.**Problems with payment, invoicing, or billing**..... .....

CLICK FOR EXAMPLES: e.g. problems with invoice or receipt, double charging, charged for goods or services not ordered, unreasonable debt collection

3.**Problems with delivery or provision of goods or services** .....

CLICK FOR EXAMPLES: e.g. received goods or services not ordered, significantly late or incomplete delivery or provision of goods or services, cancelled flights, failed download

4.**Problems with good or services received** ....

CLICK FOR EXAMPLES: e.g. wrong colour/size/version received, damaged or unsafe goods and services, goods or services not as described/advertised

5.**Problems with contract terms and conditions** ....

CLICK FOR EXAMPLES: e.g. terms and conditions difficult to find or understand, unfair contractual terms, missing information on the seller's identity or product characteristics, order confirmation not received

5.**Problems with cancelling order or product returns** .....

CLICK FOR EXAMPLES: e.g. high costs or missing information for product returns, delayed or incomplete refunds, renewal of the contract without my agreement, missing information on the right to cancel

6.**Problems with complaint handling, compensation, warranty or guarantee** ....

CLICK FOR EXAMPLES: e.g. difficult access to customer service, unsatisfactory complaint handling, warranty or guarantee not honoured, delays with repairs, inadequate compensation for losses and damages, etc.

7.**Problems with scams, counterfeit goods or fraudulent practices** ....

CLICK FOR EXAMPLES: e.g. misuse of payment card details or personal data, fake sellers, counterfeit or fake products

1.Yes..... .....

2.No ....

97.Don't Know ....

ASK Q5 IF 'Yes' Code 1 for at least one of the codes from Q4, ALL OTHERS GO TO Q6 (if only code 2 or 97 for all codes in Q4 ask Q6)

Q5. Please look through the list below and indicate all goods or services purchased online where you experienced a problem within the last 12 months, either with the goods or services or the seller/provider. It doesn't matter whether or not you complained about the problem, but it must be something for which you think you had a legitimate cause for complaint. SELECT ALL THAT APPLY

MA RANDOMISE ORDER EXCEPT OTHER AND NONE. ORDER TO REPEAT ORDER USED AT Q2

DISPLAY FULL LIST BELOW

ADD OPTION: "Did not have any problem".]; If code "Did not have any problem" selected please mark as a short complete

ASK Q6 IF NO OR DON'T KNOW AT Q4 (if only code 2 or 97 for all codes in Q4 ask Q6)

Q6. To help remind you about any problems you may have experienced, the list below outlines the different types of goods or services you can purchase online. Please indicate all the goods or services, if any, that you experienced a problem with in the last 12 months, either with the goods or services or the seller/provider. It doesn't matter whether or not you complained about the problem, but it must be something for which you think you had a legitimate cause for complaint. SELECT ALL THAT APPLY

RANDOMISE ORDER EXCEPT OTHER AND NONE. ORDER TO REPEAT ORDER USED AT Q2

MA. DISPLAY FULL LIST BELOW

ADD OPTION: "Did not have any problem".]

1.**Clothing, footwear, sporting goods** or accessories (e.g. bags, jewellery) – **include** children toys or childcare items (e.g. nappies, bottles, baby strollers)..... .....

2.**Furniture, home accessories or gardening products** - **include** cleaning products (e.g. detergents, cleaning cloths) .....

3.**Printed books, magazines or newspapers; CDs, vinyl** etc.; DVDs, Blue ray etc. – **exclude** downloads or streaming .....

4.**Computer equipment, consumer electronics** (e.g. laptop, cameras, mobile phone, TVs, smart speakers) or **household appliances** (e.g. refrigerator) ....

5.**Personal care products** (e.g. cosmetics, beauty or wellness products; personal hygiene products etc.) ....

6.**Medicine** (including vitamins or food supplements) - **include** subscriptions; **exclude** online medical consultations or renewal of prescriptions..... .....

7.**Food, beverages or groceries** - **include** subscriptions and delivery or pickup from restaurants or supermarkets..... .....

8.**Bicycles, mopeds, cars**, or other vehicles or spare parts.....

9.**Downloads or streaming services** (e.g. music, films, TV series, images, e-books, online newspapers/magazines, online games, software etc.) - **include** media subscriptions (e.g. Netflix, Microsoft Office), mobile apps (e.g. fitness, language learning, weather etc.) or software upgrades.. .....

10.Tickets or bookings for **entertainment events** (e.g. sports, cinemas, theatres, concerts, etc.) - **include** subscriptions for regular events..... .....

11.**Rideshare services** (e.g. Uber, BlaBlaCar)..... .....

12.**Other transportation services** (e.g. flight, cruise ship or train tickets, car rental such as Sixt, Europcar)..... .....

13.**Accommodation rental** (e.g. hotel reservations) - **include** purchases from private persons via website or app such as AirBnB..... .....

14.**Telecommunication services** (e.g. subscriptions to the Internet or mobile phone connections) ....

15.**Electricity, water or heating supply, waste disposal or similar services**..... .....

16.**Household services** (e.g. cleaning, babysitting, repair work, gardening) – **include** purchases from private person via website or app (e.g. Facebook Marketplace)..... .....

17.**Financial products** (e.g. insurance products, bank credit, shares)..... .....

98.**Other goods or services** (please specify): ....

99.**None of the above – I did not have any problem** .. EXCLUSIVE

MUST CODE AT LEAST ONE PROBLEM AT Q5 OR Q6 TO CONTINUE TO MAIN QUESTIONNAIRE

IF 'NOT HAD ANY PROBLEMS' IN Q5 OR Q6 SKIP SKIP TO Question Q42 and after replying Q42 mark as short completes

THOSE WHO SELECTED MORE THAN ONE GOODS OR SERVICES ITEM IN Q5 OR Q6 GO TO Q7

ALL OTHERS GO DIRECTLY TO Q8

Section 2: Nature and extent of problem experienced

Intro 2

Please carefully think about the different problems you have experienced in the last 12 months with goods or services purchased online for which you believe you had a legitimate cause for complaint. Please answer the following questions in relation to the purchase where you experienced **the most serious problem (i.e. the one that caused you the most trouble or cost).** Please consider financial loss as well as time taken to resolve it or any emotional stress or upset you experienced as a result.

Q7. With which of the goods or services listed below that you purchased online did you experience the most serious problem in the last 12 months (i.e. the one that caused you the most trouble or cost)?

SA

ONLY DISPLAY THE GOODS AND SERVICES SELECTED IN Q5 OR Q6. SINGLE CODE ONLY (if only one code selected at Q5 or Q6 skip this question and move to Q8)

1.**Clothing, footwear, sporting goods or accessories** (e.g. bags, jewellery) – **include** children toys or childcare items (e.g. nappies, bottles, baby strollers) ....

2.**Furniture, home accessories or gardening products** - **include** cleaning products (e.g. detergents, cleaning cloths) .....

3.**Printed books, magazines or newspapers; CDs, vinyl** etc.; DVDs, Blue ray etc. – **exclude** downloads or streaming .....

4.**Computer equipment, consumer electronics** (e.g. laptop, cameras, mobile phone, TVs, smart speakers) or **household appliances** (e.g. refrigerator) ....

5.**Personal care products** (e.g. cosmetics, beauty or wellness products; personal hygiene products etc.) ....

6.**Medicine** (including vitamins or food supplements) - **include** subscriptions; **exclude** online medical consultations or renewal of prescriptions..... .....

7.**Food, beverages or groceries** - **include** subscriptions and delivery or pickup from restaurants or supermarkets..... .....

8.**Bicycles, mopeds, cars**, or other vehicles or spare parts.....

9.**Downloads or streaming services** (e.g. music, films, TV series, images, e-books, online newspapers/magazines, online games, software etc.) - **include** media subscriptions (e.g. Netflix, Microsoft Office), mobile apps (e.g. fitness, language learning, weather etc.) or software upgrades.. .....

10.**Tickets or bookings for entertainment events** (e.g. sports, cinemas, theatres, concerts, etc.) - **include** subscriptions for regular events..... .....

11.**Rideshare services** (e.g. Uber, BlaBlaCar)..... .....

12.**Other transportation services** (e.g. flight, cruise ship or train tickets, car rental such as Sixt, Europcar).....

13.**Accommodation rental** (e.g. hotel reservations) - **include** purchases from private persons via website or app such as AirBnB ....

14.**Telecommunication services** (e.g. subscriptions to the Internet or mobile phone connections) ....

15.**Electricity, water or heating supply, waste disposal or similar services**..... .....

16.**Household services** (e.g. cleaning, babysitting, repair work, gardening) – **include** purchases from private person via website or app (e.g. Facebook Marketplace)..... .....

17.**Financial products** (e.g. insurance products, bank credit, shares)..... .....

98.**Other goods or services** (please specify): ....

99.**None of the above – I did not have any problem** .. ..

IF 'NONE OF THE ABOVE', SKIP TO Question Q42 and after replying Q42 mark as short completes

Q8/Q8.bis. Still thinking about the most serious problem, **how much did you pay** for this good or service (including expected fees and delivery costs but NOT including any unexpected additional charges or hidden fees)?

If you are not sure, please give an estimate.

If it is a **recurring transaction**, such as a monthly subscription, please indicate the amount that you regularly pay.

ENTER NUMBER, INSERT DROPDOWN BOX WITH [ONE-OFF PAYMENT, EVERY WEEK, EVERY MONTH, EVERY YEAR] EUR/USD: etc..... .....

97.Don't know/can't remember ....

-Q8-if the value entered is bigger than the limit, please show error message: "The amount you entered is high. Can you please confirm how much you paid for this good or service: Pipe in service from Q7" then allow respondent to go further and show Q8.bis (same question as Q8) with no maximum range. IF DON'T KNOW, PROMPT: If you are able to give a reasonable estimate that would be helpful, though if you really cannot remember then please do select 'don't know'.

Q9, Q9bis. Which of the following describe the problem you experienced in the context of this one purchase?

CODE ALL THAT APPLY. IF TOP-LEVEL PROBLEM SELECTED, SHOW SUB-MENU FOR DETAILS.

RANDOMISE **TOP-LEVEL** ORDER EXCEPT OTHER

1.**Problems with price or tariff (including cost of delivery)**

AND WAS THAT (CODE ALL THAT APPLY)?:

1.I was charged a higher price than others for the same good/service (e.g. price discrimination based on personal details, such as my location) ....

2.Price increased unexpectedly (e.g. offer price no longer available) ....

3.Unclear or complex pricing/tariffs..... .....

4.Misleading or incorrect indication of price (e.g. hidden charges, costs of delivery higher than indicated, unclear currency, etc.) ....

5.Other (please specify)..... .....

2.**Problems with payment, invoicing, or billing**..... .....

AND WAS THAT (CODE ALL THAT APPLY)?:

6.Invoice, receipt or bill unclear ....

7.Invoice, receipt or bill not received or could not be accessed..... .....

8.Invoice, receipt or bill incorrect (e.g. being charged twice for the same good or service) ....

9.I was charged for goods or services I didn't purchase .....

10.Unreasonable debt collection practices ....

11.Other (please specify)..... .....

3.**Problems with delivery or provision of goods or services**

AND WAS THAT (CODE ALL THAT APPLY)?:

12.Good or service delivered/provided only partially or not at all (e.g. cancelled flight, technical download failure, missing parts)..... .....

13.Good or service delivered/provided significantly later than indicated ....

14.Provision of service stopped unexpectedly ....

15.I was delivered other goods or services I didn't request..... .....

16.Other (please specify)..... .....

4.**Problems with goods or services received**..... .....

AND WAS THAT (CODE ALL THAT APPLY)?:

17.Good or service faulty or not working..... .....

18.Good or service caused damage ....

19.Good or service not as described (e.g. wrong color, size, model version or specification) ....

20.Good or service not as described when ordered (advertising was misleading)..... .....

21.Good or service unsafe (including unsafe packaging and inadequate safety instructions/labelling) ....

22.Other (please specify)..... .....

5.**Problems with contract terms and conditions (excluding contract cancelation and product returns)**.....

AND WAS THAT (CODE ALL THAT APPLY)?:

23.Contractual terms and conditions difficult to find and understand..... .....

24.Misleading or unfair contractual terms and conditions (includes change of contractual terms after purchase without my consent)..... .....

25.Missing or incomplete information in the contract (e.g. seller identity, product characteristics, delivery costs etc.)

26.Order confirmation not received or wrong..... .....

27.Other (please specify)..... .....

6.**Problems with cancelling order or product returns** .....

AND WAS THAT (CODE ALL THAT APPLY)?:

28.Could not make use of my right to return the good or cancel the contract..... .....

29.Other problems cancelling my contract/order (e.g. subscription duration too long, renewal without my agreement, problems changing service provider).. .....

30.It was difficult to return products (high costs of return, missing information)..... .....

31.Delayed or incomplete refund for returned goods or cancelled services..... .....

32.Other (please specify)..... .....

7.**Problems with complaint handling, compensation, warranty or guarantee**

AND WAS THAT (CODE ALL THAT APPLY)?:

33.Problems with after-sales service, customer service or complaint handling (e.g. difficult to make contact, unsatisfactory complaint resolution)..... .....

34.Warranty or guarantee not honoured at all or only inadequately (e.g. charged unexpected or additional costs for repairs or replacements, delayed repairs, ineffective repairs, etc.) ....

35.Compensation (e.g. losses, damages or injuries) inadequate or not offered at all ....

36.Other (please specify)..... .....

8.**Problems with scams, counterfeit goods and other fraudulent practices** .....

AND WAS THAT (CODE ALL THAT APPLY)?:

37.My payment details or personal data were misused or stolen……..... .....

38.Goods or services were intentionally never delivered or provided (e.g. the seller/provider was fake)..... .....

39.I received counterfeit or fake goods or services .....

40.Other (please specify)..... .....

98.Other problem (please specify):..... .....

Q10. Was the problem you encountered directly related to COVID-19? (e.g. cancelled event tickets or travel reservations, suspended delivery, etc.)

SA

1.Yes..... .....

2.No ....

97.Don't know ....

Q11/Q11.bis. And how much, if anything, did you pay in total in **additional charges or hidden fees**, over and above what you expected to pay? Do not consider any reimbursement or refund you may have since received from the seller or provider.

Mark 0 if you did not pay any additional charges or hidden fees that you did not expect.

Numeric- Range 0-The sum of answers from Q8

ENTER NUMBER EUR/USD: etc ....

97.Don't know/can't remember ....

-Q11-if the value entered is bigger than the limit, please show error message: "The amount you entered is high. Can you please confirm how much you paid in additional charges or hidden fees:" then allow respondent to go further and show Q11.bis(same question as Q11) with no maximum range.

Q12. During the period the problem lasted, to what extent could you use the good or service as originally intended?

SA

1.Not at all ....

2.Partly, but with major difficulty (I got some use out of it, but was not able to get more than half the value or use that I expected)..... .....

3.Partly, but with minor difficulty (I got more than half the value or use out of it that I expected, but was not able to get all of it) .....

4.Fully..... .....

97.Don't know or can't say..... .....

Q13. Which, if any, of the following steps have you taken to resolve the problem? MA - SELECT ALL THAT APPLY

1.Cancelled the purchase of the good or service within the time allowed..... .....

2.Returned the good or terminated the service……. ....

3.Purchased a replacement good or service or repaired it at my own expense..... .....

4.Made a complaint to the seller, provider or delivery company.....

5.Withheld payment for the good or service……..... .....

6.Asked the seller or provider for repair, replacement or refund .....

7.Asked the seller/provider for a compensation for damages and losses ....

8.Made a complaint to a government body or public consumer organisation ....

9.Made a complaint to a private consumer organisation or association..... .....

10.Taken the case to court or a lawyer..... .....

11.Engaged in an out-of-court dispute settlement / alternative dispute resolution mechanism ....

12.Left a review, rating or comment online ....

98.Other (Please specify) ....

99.Have not taken any action Exclusive ....

97.Don't know ....

ASK Q14 IF 'HAVE NOT TAKEN ANY ACTION' (code 99) SELECTED AT Q13

Q14. Why have you not taken any action to resolve the problem? MA- SELECT ALL THAT APPLY

1.The seller/provider fixed the problem..... .....

2.I was unlikely to get a satisfactory solution to the problem encountered..... .....

3.My previous complaints were not successful..... .....

4.The sums involved were too small to take any action.. .....

5.The complaints procedure was too complicated..... .....

6.I thought taking action would take too long..... .....

7.I have not had the time yet but will still take action ....

8.I did not know how/where to complain ....

9.I was not sure of my rights as a consumer ....

10.The seller/provider is located in a different country ... .

11.I don't like confrontation ....

98.Other (Please specify) ....

ASK ALL

Q15. Roughly how much time have you personally lost as a result of the problem? (e.g. time spent discussing the problem with the supplier, contacting the business or seller, or going to an alternative dispute resolution body or to court.) SA - SINGLE CODE ONLY

1.Less than 1 hour..... .....

2.1 to 2 hours..... .....

3.3 to 4 hours..... .....

4.5 to 10 hours..... .....

5.11 to 20 hours..... .....

6.More than 20 hours ....

99.I've not spent any time on it ....

97.Don't know [ONLY APPEARS IF RESPONDENT TRIES TO SKIP QUESTION]..... .....

Q16. To what extent have you felt emotionally stressed (e.g. angered, frustrated or worried) as a result of the problem? SA-SINGLE CODE ONLY

1.Not at all or only a little ....

2.Moderately..... .....

3.Quite a lot ....

4.Extremely..... .....

97.Don't know/can't say [ONLY APPEARS IF RESPONDENT TRIES TO SKIP QUESTION] ....

Q17./Q17.bis How much money, if any, have you spent trying to resolve the problem, without considering any refund or compensation you may have received from the seller or provider? Please provide an estimate for each the following possible cost items:

1.Costs of repairs (if applicable) or replacement of purchased good or service at your own expense ....

2.Costs related to legal action taken (e.g. lawyer, court proceedings)..... .....

3.Costs related to any damage resulting from the problem (e.g. leakage of a broken good damaged another item) .....

4.Other extra costs such as telephone, postage, expert advice, travel costs to resolve the problem, etc. ....

Just enter 0 if you have not spent any money in that category:

	Repairs or replacement	Legal action	Damage	Other costs
Enter number Show currency	EUR/USD: etc			
Don't know/can't remember				

-Q17-if the value entered is bigger than the max limit set, please show error message: "The amount you entered is high. Can you please confirm

how much you paid for repairs or replacements/in legal action/for damage/in other costs:" then allow respondent to move further and show Q17.bis(same question as Q17) with no maximum range

Q18. You indicated a price of [INSERT AMOUNT PAID FROM Q8 – IF REGULAR PAYMENT ADD "PER (FREQUENCY)"] for the item you bought online. **How much extra** would you have been willing to pay, if paying a higher price had ensured that you would not have encountered the problem (taking into account all the trouble you had as a result of the problem, including any financial loss, time loss, and emotional stress)?

I would have willingly paid an **additional**:..... .....

ENTER NUMBER EUR/USD: etc.[SHOW SELECTED DROPDOWN ITEM FROM Q8: ONE-OFF PAYMENT, EVERY WEEK, EVERY MONTH, EVERY YEAR] . .....

99.Don't know/can't remember ....

Q19. Which of the following, if any, has the seller or provider done so far in response to the problem? MA- SELECT ALL THAT APPLY

1.Acknowledged or agreed there is a problem (please exclude any automatic e-mail response or replies such as 'we have acknowledged your query and will get back to you')..... .....

2.Investigated the problem ....

3.Given an explanation I am happy with ....

4.Given an explanation I am unhappy with ....

5.Fixed/repaired the good or service ....

6.Provided a new/replaced the good or service..... .....

7.Given a partial or full refund..... .....

8.Given a credit note or voucher to use on other goods or services ....

9.Given additional compensation for damages or losses incurred..... .....

98.Other (please specify)..... .....

99.None of the above ....

ASK ALL

Q20/Q20.bis. How much, if any, have you received as monetary reimbursement (e.g. refund, credit note or voucher) or compensation for the problem from the seller or provider? Please do not include the value of any repairs or replacement goods or services.

If you are not sure, please give an estimate. Please enter '0' if you have not received any.

ENTER NUMBER EUR/USD: ....

99.Don't know/can't remember ....

-Q20-if the value entered is bigger than the max limit set, please show error message: "The amount you entered is high. Can you please confirm how much you have received as reimbursement or compensation:" then allow respondent to move further and show Q20.bis with no maximum range

ASK ALL

Q21. To what extent do you personally feel the problem has been resolved?

SA

1.Fully resolved ....

2.Partially resolved ....

3.Not yet resolved but I was informed that an investigation is ongoing.....

4.Not yet resolved and I have not received any response .....

5.Not yet resolved and I am continuing with my complaint because the response I obtained was not satisfactory ...

6.Not resolved and I decided not to do anything more about it

97.Don't know [ONLY APPEARS IF RESPONDENT TRIES TO SKIP QUESTION]..... .....

ASK ALL 'PARTLY' OR 'FULLY' RESOLVED AT [Q21](codes 1 or 2 at Q21)

Q22.And how long did the problem last until it was fully/partially resolved?

SA

1.Less than 24 hours ....

2.One day to less than a week ....

3.One week to less than one month ....

4.One month to less than three months..... .....

5.Three months to less than six months ....

6.Six months to less than a year..... .....

7.A year or more..... .....

97.Don't know ....

ASK ALL CODED 3-5 AT Q21 ('INVESTIGATION'/'RESPONSE'/NOT SATISFACTORY'

Q23.And how long has the problem lasted so far?

SA

1.Less than 24 hours ....

2.One day to less than a week ....

3.One week to less than one month ....

4.One month to less than three months..... .....

5.Three months to less than six months ....

6.Six months to less than a year..... .....

7.A year or more..... .....

97.Don't know ....

ASK ALL WHO RESPONDED 'NOT RESOLVED AND I DECIDED NOT TO DO ANYTHING ABOUT IT' AT Q21 (code 6)

Q24.And how long did the problem last until you decided not to do anything more about it?

SA

1.Less than 24 hours ....

2.One day to less than a week ....

3.One week to less than one month ....

4.One month to less than three months..... .....

5.Three months to less than six months ....

6.Six months to less than a year..... .....

7.A year or more..... .....

97.Don't know ....

ASK ALL 'PARTLY' OR 'FULLY' RESOLVED AT Q21 (codes 1 or 2 at Q21).

Q25.And how satisfied were you with what you achieved so far with regard to the problem encountered?

SA

1.Completely satisfied..... .....

2.Very satisfied ....

3.Fairly satisfied..... .....

4.Neither satisfied nor dissatisfied ....

5.Fairly dissatisfied ....

6.Very dissatisfied ....

7.Completely dissatisfied ....

97.Don't know..... .....

Section 3: Origins of the problematic purchase

Q26.Thinking still about your most serious problem, from whom did you make the online purchase? Please read all the options before choosing one.

SA-SINGLE CODE ONLY. Examples tailored to local country.

1.From a **specialised retailer or service provider who only sells online** – e.g. Zalando, Revolut, Netflix, Skype ....

2.From a **specialised retailer or service provider who sells online and offline** – e.g. Apple, Nikon, Zara, New York Times, Vodafone, Singapore Airlines, Bank of America . .....

3.From a **general retailer who only sells online** – e.g. JD.com, Amazon, or Alibaba ....

4.From a **general retailer who sells online and offline** – e.g. Walmart, Tesco, Macy's, CVS ....

5.From **another business via an online marketplace** – e.g. an App Store, Amazon Marketplace, Rakuten, Taobab, or from professional sellers on eBay ....

6.From an **individual via a peer-to-peer online platform** e.g. Uber, Airbnb, BlaBlaCar, or a private seller on eBay.....

7.From **another business or individual via social media or messaging apps** not specifically designed for online purchases e.g. WhatsApp, Facebook Marketplace, WeChat.....

98.Other (please specify)..... .....

97.Don't know/can't remember ....

Q27.And how did you first hear about this website or seller?

SA-SINGLE CODE

1.I had used it before ....

2.I knew the company anyway so went to their website . .....

3.It was recommended to me by friend or family member .....

4.A Google search ....

5.Another search engine..... .....

6.An advertisement I saw **online** ....

7.An advertisement I saw **offline**..... .....

98.Other (please specify)..... .....

97.Don't know/can't remember ....

Q28.Did you buy the good or service from:

SA

1.A domestic seller/provider ....

2.A seller/provider from abroad ....

97.Don't know/can't remember ....

Section 4: Trust

Q29. Who do you consider was at least partly responsible for the problem you encountered? You may tick more than one option.

MA

1.The seller or provider who sold me the good or service via a website, app or platform ....

2.The website, app or platform that connected me to the seller or provider (e.g. Uber, eBay, Amazon Marketplace).....

3.The producer or manufacturer of the good or service itself (if different from the seller or provider)..... .....

4.The transport or courier company who delivered the good or service ....

5.I was at least partly responsible (e.g. did not read the terms and conditions, did not use the good or service properly etc.)

98.Other (please specify)..... .....

97.Don't know/can't remember Exclusive ....

Q30. To what extent did you trust the online seller that you bought the goods or services from before you made the purchase?

1.I completely trusted it..... .....

2.I mostly trusted it ....

3.I only partly trusted it..... .....

4.I did not trust it ....

97.Don't know..... .....

ASK Q31 IF 'PARTLY' OR 'DID NOT TRUST' THE SELLER AT Q30 (CODE 3 OR 4)

Q31. What made you go ahead with the purchase, despite the fact that you didn't completely trust the seller or provider? MA PLEASE CODE ALL THAT APPLY

1.The good/service was **not available** anywhere else ... .

2.The good/service was **cheaper** than anywhere else ... .

3.The good/service was **available sooner** than anywhere else..... .....

4.I did **not want to spent more time looking** for alternative sellers ....

5.**User ratings and reviews** suggested the seller could be trusted..... .....

6.**People I know and trust** suggested the seller could be trusted..... .....

7.**People on social media** suggested the seller could be trusted..... .....

8.It was a low-value purchase and **I was willing to take a risk**

9.I felt **protected by the legal framework** in my country (e.g. consumer rights)..... .....

10.I felt **protected by the possibility to rate or review** the seller/provider ....

98.Other reason (please specify)..... .....

97.Don't know/can't remember Exclusive ....

ASK ALL WHO BELIEVE OTHER PARTY WAS AT LEAST PARTLY RESPONSIBLE AT Q29 (CODE 1-4):

Q32.How likely is it that you will, at some point, make another purchase from the seller or provider with whom you experienced the problem?

SA

1.Very likely (or I've already used them again) ....

2.Fairly likely ....

3.Not very likely ....

4.Not at all likely ....

97.Don't know/can't say ....

Section 5: Consumer attitudes and e-commerce use

Q33.Thinking about your own attitudes and behaviour **when purchasing goods or services online**, to what extent do you agree or disagree with each of the following statements? RANDOMISE LIST-Carousel

SINGLE CODE FROM: 1.Strongly agree, 2.tend to agree, 3.tend to disagree, 4.strongly disagree, or 5.No opinion.

1.I usually choose who I purchase from based only on price and delivery conditions, rather than try to purchase from a seller I know and trust ....

2.If I'm faced with an unsatisfactory online consumer experience I will take all possible steps to achieve a better outcome or receive compensation, rather than just accept it and put up with it ....

3.I do trust that my government, or another consumer protection authority, will protect my interests if problems with an online purchase should occur ....

4.I usually expect the terms and conditions will be acceptable, rather than read them before every online purchase ....

5.I usually read the information available (e.g. online reviews, quality certificates) to properly assess the risk involved with an online purchase ....

Q34. How many times have you ordered or bought goods or services online for private use **in the last 3 months**? Please treat a monthly subscription (such as Netflix or Spotify) as one purchase. SA-SINGLE CODE ONLY

99.None Exclusive ....

1.1 or 2 times ....

2.3-5 times ....

3.6-10 times ....

4.11-20 times ....

5.More than 20 times ....

97.Don't know

Q35. What would you estimate your total spending to be over the past 3 months for goods or services you have purchased online? We do not expect you to know for sure, but please make an informed estimate.

SA

1.Less than 50 EUR .....

2.Between 50-99 EUR .....

3.Between 100-499 EUR .....

4.Between 500-999 EUR .....

5.More than 1000 EUR .....

97.Don't know .....

Section 6: Socio-demographic questions

Q42. Thinking about your household's total income, is your household able to make ends meet, namely, to pay for its usual necessary expenses?

SA-SINGLE CODE ONLY

1.With great difficulty ....

2.With difficulty ....

3.With some difficulty ....

4.Fairly easily ....

5.Easily ....

6.Very easily ....

99.Prefer not to say ....

THANK AND CLOSE

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Notes

[1] The survey covered financial consumer harm experienced by consumers in the 12 months preceding its rollout.

[2] The survey did not assess the percentage of problematic transactions in all transactions. Incidence here refers to the percentage of online consumers who have faced at least one problem in e-commerce in the 12 months preceding the survey.

[3] Eurostat (2022), ISOC_EC_IBOS.

[4] Excluding online medical consultations

[5] The survey does not suggest significant socio-economic differences with regard to the propensity of reading T&Cs (in difference to other available information). Interestingly, consumers also tend to give more importance to information provided through online reviews and quality certificates, than to T&Cs. In particular, while around 70% of consumers usually expect that T&Cs will be acceptable (rather than read them), 80% typically read other available information.

[6] Source: (OECD, 2022[43]). The actual value is likely higher, because for several OECD countries data for 2021 is not yet available and has been replaced with data from previous years to obtain an overall average.

[7] Q1 When did you last buy or order goods or services for private use online? Mean (months): Country average (13): 1.2; Chile: 1.2; Japan: 1.3; Mexico: 1.3. Q34 How many times have you ordered or bought goods or services online for private use in the last 3 months? (ONLY ASKED OF THOSE EXPERIENCED PROBLEMS): Mean (months): Country average (13): 5.8; Chile: 5.3; Japan: 6.2; Mexico: 5.1.

[8] 'Low' represents the approximately 20% lowest income households in each country, 'high' the approximately 20% highest income households in each country, and 'med' the approximately middle 60%.

[9] Consumers were allocated to different levels of educational attainment (low, medium or high) on the basis of ISCED 2011 categorisation (low: 0-2; medium: 3-4; high: 5-8).

[10] The ability (or difficulty) to "make ends meet" is a self-reported measure of wealth, used to assess the economic strain of individuals. It is often used as an alternative to income and other wealth measures that can be difficult for individuals to precisely recall in the context of a survey (see e.g. (OECD, 2020[42])).

[11] Consumers who have not faced a problem only responded to a couple of core *screening* questions to limit the costs of the survey, which focuses on consumers that have faced a problem in e-commerce.

[12] Consumers were asked to indicate all product categories they had faced a problems with in the last 12 months, even if they had not purchased the product (or product category) within the last 12 months. Multiple responses were possible on both questions (Q2, Q5/6).

[13] These problems categories likely have some overlap: e.g. if a consumer didn't receive a purchased product due to a scam, she may have linked the problem to both scams and delivery issues.

[14] In contrast, the table itself highlights the absolute frequency with which a problem mentioned in a given country and the 13 country average.

[15] In most cases consumer either thought they were charged a higher price than other consumers (e.g. due to price discrimination) or the price had increased unexpectedly, e.g. because an offer prices was not longer available.

[16] On average, consumer cited 2.2 different problem categories. For Bicycles, cars, etc. the number of different product types encountered on average was 3.2. The average price for purchases in the category "Bicycles, cars, etc." was USD 602 (maximum: USD 7527), indicating that the category likely captures problems with the purchase of bicycles or *used* cars.

[17] These values are the actually observed averages. For the predicted values resulting from the regression, after accounting for a number of other observable differences, see Annex F.

[18] Eurostat (2022), ISOC_EC_IBOS

[19] The percentage of consumers participating in e-commerce in 2018 was 13% in Mexico, 25% in Türkiye and 36% in Chile, relative to an OECD average of 57%, see (OECD, 2019[1]). Data source: OECD (2021), "ICT Access and Usage by Households and Individuals", OECD Telecommunications and Internet Statistics (database), https://doi.org/10.1787/b9823565-en (accessed on 23 July 2021)

[20] These were consumers that responded to all the required questions for the detriment calculation (Table 5.1) but nevertheless faced zero *financial* pre-redress detriment. This could include, for example, cases where consumers lost a lot of time with the purchase or had to deal with a rude delivery company, without, however, creating further financial harm for the consumer. However, many of these consumers still faced significant *non-financial* forms of detriment. In particular, more than half (52%) of the affected consumers lost over an hour dealing with the problem (15% lost over 5 hours) and 26% were either *quite a lot* or *extremely* stressed by the incident.

[21] Consumers that never received the product (complete *loss of use*) but were never actually charged for it would typically not be included in this group. In particular, those consumers are likely to have "cancelled the purchase within the allowed time" or "returned the good/terminated the service" (see Q13), in which case the value of monetary redress is automatically set equal to the *loss of use* level (and hence non-zero). It is further noteworthy that around 46% of the consumers with a *redress sufficiency* = 0 faced either hidden charges (Q11) or extra costs (Q17).

[22] Most of these consumers (92%) faced hidden or extra costs in addition to the financial pre-redress detriment arising from loss of use. However, hidden and extra costs alone are not responsible for the insufficiency of redress. In particular, for almost half of them (47%) redress was also not enough to cover the detriment resulting from a loss of use.

[23] See Footnote 20.

[24] Take the example of a subscription that costs USD 45 per month. The daily value of this subscription is USD 1.48 (USD 45/30.5 days). If the consumer had "major difficulties" using the product for one day only (i.e. he lost two thirds of the daily value), pre-redress detriment will amount to USD 0.49. However, the seller may still have granted the consumer a full free additional month as compensation, implying a redress sufficiency ratio of 9184% (USD 45/USD 0.49).

[25] Country specific *median* values for the different components of financial pre- and post-redress consumer detriment are provided in Annex E.

[26] The regression analysis, based on Column 2 of Table E.A.3 confirms these results and further suggests lower *relative detriment* for Japan, after accounting for the socio-economic composition of the country sample and reducing the impact of extreme values through the IHS transformation.

[27] Even for these three countries the share would fall above 50% if consumers facing zero financial pre-redress detriment to begin with (and thus automatically obtaining full redress) were excluded

from the comparator group. This also explains why the median value of *redress sufficiency* (which is not defined for those consumers) is less than 1 in Figure 5.2.

[28] A companion table showing median values is provided in Annex E.

[29] A companion table showing median values is provided in Annex E.

[30] A companion table showing median values is provided in Annex E.

[31] These results are based on Column 4 of Table A.F.6, which explains why the mean of 58.9% slightly deviates from the 60% reported earlier (which was based on column 9).

[32] Consumers were asked to what extent they had trusted the online seller *before* they made the purchase. However, as they were asked to provide their response *after* the actual experience, responses may partly reflect this experience.

[33] A companion table showing median values is provided in Annex E.

[34] 'Low' represents the approximately 20% lowest income households in each country, 'high' the approximately 20% highest income households in each country, and 'med' the approximately middle 60%.

[35] Interestingly, they also face more detriment relative to the price paid on average, which could indicate that consumers' response to the attitude question was partly influenced by their actual behaviour (e.g. consumers that faced higher detriment took more action and hence responded to the attitude question accordingly).

[36] Based on OECD (2022), Annual National Accounts, Gross Domestic Product, Final consumption expenditure (last accessed 15 May 2022) for 2020. Note that different from other parts of the report, where domestic currency values for *individual* countries are converted to USD using purchasing power parity (PPP) indices to better compare the gravity of the problem from the consumer perspective (i.e. lost consumption potential), the *aggregation* of final household consumption across countries uses simple (current) exchange rates and hence does not account for differences in purchasing powers.

[37] Using the mean (rather than the median) value of *pre- or post-redress detriment as % of Final Household Consumption* (0.28% and 0.10%) would result in slightly higher values, namely 87.3 billion pre-redress and USD 30.9 billion post-redress. The results for population-weighted means are similar, yielding 0.27% and 0.09% respectively.

[38] This holds not only for the Regression shown in Table E.A.13, but for an analogous one that uses an indicator of low income, rather than the low ability measure.

[39] These are the actually observed differences straight from the survey results. They are different from the *predicted* values discussed in the Appendix, which apply after accounting for a number of other observable differences and minimizing the impact of outlier values.

[40] The survey does not provide information on how precisely the issue was resolved (e.g. voucher or cash) and the responses regarding the degree of problem resolution are entirely subjective. The latter, combined with the fact that the proposed measures of financial detriment are approximations, also explains the discrepancy between the share of consumers that saw their problem "fully resolved" (50%) and the share of consumers with zero (or negative) post-redress detriment (46%, including consumers that had zero pre-redress detriment to begin with).

[41] The regression uses a dummy variable as the dependent variable, which is equal to 1 if the problem was (fully or partially) resolved within less than one week. Country fixed effects, product fixed effects and one indicator variable for each different type of problem encountered are used as independent variables.

[42] The calculation of mean hours lost uses the midpoints of the intervals provided to consumers in Q15 (midpoints: 0 / 0.5 / 1.5 / 3.5 / 7.5 / 15.5 / 25).

[43] For the median consumer, time loss was equal to 1-2 hours in all countries except for Chile and Türkiye, where it was 3-4 hours.

[44] *Easiest*: "Easily" or "Very easily" in Q42; *Most difficult*: "With great difficulty" or "With difficulty" in Q42.

[45] Using the median helps to reign in the impact of individual countries with very low or very high values for the relative increase in detriment on the results. For example, in the case of Australia, the high *relative* increase in total detriment after the addition of time loss is driven mostly by the low average value of *post-redress detriment* (the initial value, excluding time loss), which, as discussed in Section 5.2, is partly the result of a small number of consumers that obtained very high redress.

[46] 'Light' = 1 – 2 purchases in the past 3 months; 'Medium' = 3- 10 purchases; 'Heavy' = 11 or more purchases

[47] For example, the ordering of countries (as established by the coefficients on country dummies) remains roughly the same (in particular at the extremes of the distribution) in a regression that controls for the price paid, the type of product purchased, the type of seller (e.g. platform or specialised), redress sufficiency and time lost (not shown).

[48] The cut-off of 5% was chosen as a compromise to i) retain as much observations as possible (e.g. acknowledging that some consumers may have had good reasons to select more than 5 high-level problem categories), while at the same time ii) eliminating (likely) implausible responses that could have a particularly large impact on the results (the top 5%).

[49] Age is used as a continuous variable. Alternative regressions using age brackets, indicator variables for old or young consumers respectively or adding age^2 to the equation, did not deliver additional results.

[50] The change in probability from p=43.7% to q=49.4% can be linked to the odds ratio in the table (0.80) by considering that the corresponding odds are defined as p/(1-p) [= 0.78] and q/(1-q) [=0.98] respectively and then dividing one by the other. Note that the probabilities cannot be derived from the odds ratio without further assumptions (e.g. evaluating all marginal effects at the mean of the covariates).

[51] Additionally, and following (Bartlett and Partnoy, 2020[22]), these and all following specifications using a ratio as dependent variable contain a set of controls to account for possible omitted variable bias and measurement error that can arise when using a ratio as dependent variable (not shown).

[52] Effects are evaluated using the partial effects formulas (not the elasticity) implied by the *arcsinh-Linear* specification (for age) and *arcsinh-Linear with Dummy independent variable* specification (for all other socioeconomic characteristics) from (Bellemare and Wichman, 2019[23]).

[53] Finding ii) may seem surprising, given that we are considering only pre-redress at this stage. However, as consumers responded to Q33 after going through the detailed product description, their responses may have been influenced by the particular problem they previously described. If this is the case, it may be that consumers that faced particularly high levels of pre-redress detriment also took more actions to solve the problem, which may have fed into the response to this question and explain the positive association (reverse causality).

[54] When not accounting for the *subscription* indicator, Telecommunications services also turn out to be significantly more difficult to be fully resolved (39.7%).