FINANCIAL & RISK LITERACY: RESILIENCE IN TIMES OF CORONA

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EXECUTIVE SUMMARY



Arne Holzhausen, Head of Wealth, Insurance and Trend Research <u>arne.holzhausen@allianz.com</u>



Patricia Pelayo Romero, Expert Insurance patricia.pelayo-romero@allianz.com As the Covid-19 crisis upends our societies, we at Allianz decided to check the pulse of savers in Austria, France, Germany, Italy, Spain, Switzerland and the U.S. We commissioned Qualtrics, an experience management company, to survey a representative sample of 1,000 people in each of the seven countries about their experiences with income, consumption, savings and investment, financial literacy and risk during the Covid-19 pandemic. Additionally, we asked about their plans after the pandemic. The survey was conducted from 28 September to 21 October, 2020, via an online questionnaire.

in each of the seven countries, more than 55% of respondents reported the pandemic to be the most impactful economic event of their lifetime. Differences between the countries mainly reflect the depth of the sanitary and economic crisis, with German respondents showing the highest level of resilience. Only 20.0% of them reported having lower income because of the pandemic (against 30.0% for the total sample). There are, however, two aspects all countries have in common: women and millennials have been disproportionately affected by this crisis. 37.8% of millennials against 27.2% of non-millennials had to cope with lower income. The gender gap is equally large: 32.7%% of female respondents saw a significant drop in their income against 27.1% of male respondents.

Financial knowledge is a critical factor that explains why one segment of the population is better able to cope with the shock compared to others. However, our results show the level of financial literacy is disastrously low. To measure the level of financial literacy, we asked four questions relating to different financial skills: numeracy, interest, accounting and inflation. Overall, only 28.5% of all respondents answered all four questions correctly. Even more alarmingly, we found a financial literacy gender gap in all countries: 36.4% of the men we surveyed were financially literate compared to 20.7% of the women in our sample. This added to the greater financial impact on women and creates a perfect storm scenario for the pandemic to become a "she-cession".

The level of risk literacy is also (very) low (22.8%) and the gender gap pervasive (9.6 percentage points). But our survey could not prove the hypothesis that our risk profile is determined by our risk literacy: high-risk aversity could be found among "literate" as well as "illiterate" respondents. The on average higher risk aversity among female respondents points at other, unobservable factors like personality or social role expectations.

Nevertheless, higher financial literacy seems to lead to better-informed investment decisions in times of negative real interest rates. When asked to invest EUR1,000, financially "literate" respondents preferred securities (35%) to bank deposits (22%); "illiterate" respondents answered the other way round (27% vs 30%). Thus, financially savvy savers are more likely to avoid falling into the trap of investing in supposedly safe but loss-making assets in times of negative real interest rates. Even more disturbing: "illiterate" respondents are more likely to invest in cryptocurrencies (12%) than in insurance related products (9%).

And what does this now mean for policymakers and the finance industry? The disastrously low levels of financial and risk literacy are a call for action. The investment environment was challenging even before Covid-19 hit economies and markets. It has become more difficult ever since. Without sound knowledge, many households are doomed to make the wrong financial decisions, with devastating consequences for the financial well-being in the future. The upshot: Financial literacy should become part of the normal curriculum for schools and the industry should double down its efforts for simple, easy to understand products.



28.5%

An alarmingly low level of financial literacy

INTRODUCTION: LOOKING INTO HOUSEHOLDS' MINDS

Households have a great influence in the overall economy. If anything, the Covid-19 crisis is a brutal reminder of this obvious but often overlooked fact. Skyrocketing savings caused decreased demand and thus further affected the economic slump in the spring, while the return to shopping and travelling led to the equally forceful rebound over the summer. Going forward, the decisions of households whether to save or spend - will be decisive, not just for their own financial well-being and the trajectory of economic growth, but also the monetary and financial stability of their countries as households' resource allocation also affects market prices. Finally yet importantly, the ability of consumers to make informed financial decisions improves their ability to develop sound personal finance. Thus, as we navigate increasingly uncertain times, the decisions households take going forward will be crucial, not only to their financial well-being, but also to the economic stability of their countries.

Therefore, understanding the decisionmaking processes of households is of utmost importance. In recent years, research in this field – from behavioral finance to economic psychology – has made great strides. Based on these insights, we decided to conduct a survey to decipher the thoughts and motives that are driving spending and saving decisions at this critical juncture in time. In October 2020, we asked almost 7,000 people in seven countries¹

1 Austria, France, Germany, Italy, Spain, Switzerland and the U.S.. See appendix for the survey description in detail.

to report the impact of the Covid-19 pandemic on their economic decisions thus far, as well as some of their risk perceptions. These seven countries account for 40% of global GDP. We found striking results for how the pandemic has affected respondents in similar ways across Europe and the U.S., as well as surprising heterogeneity in some responses by country, age and gender. Additionally, we asked a few questions related to inflation, interest rates (simple and compound) and probability in order to assess if households' level of financial literacy itself had an effect on their selfreported changes in behavior.

While we cannot credibly infer causality between financial literacy and the impact of Covid-19 for consumers – despite all theory-reinforcing statistical tests – we can acquire some insights into consumers' minds in this period of uncertainty. Moreover, we will try to shed some light on their risk profiles and risk preferences using some of the questions in our survey.



Covid-19: A crisis unlike any other

The Covid-19 pandemic is the latest in a series of crises that has punctuated the first two decades of the 21st century. It is, however, different from the other crises, having started in the real economy rather than the financial sector, which was the origin of the Great Financial Crisis (GFC) of 2008-2009, the euro crisis and the one following the burst of the dot-com bubble. This time around, there have also been great efforts by governments to minimize the economic blow of lockdown(s), such as expansionary monetary policy, temporary debt relief, targeted interventions and expansion of existing programs, wage subsidies and temporary tax relief. Therefore, we wanted to know, eight months into the pandemic, whether consumers have felt an impact on their personal finances. Were there any other crises that weighed down their wallets more?

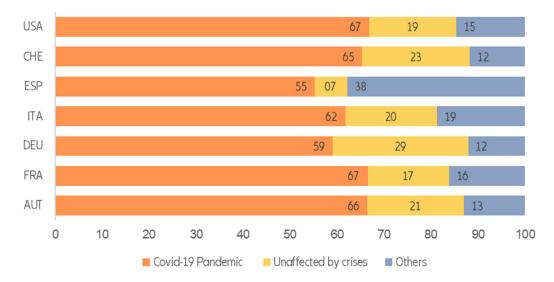
Across Europe, despite high levels of social protection in terms of social spending as a percentage of GDP, our results show that the Covid-19 crisis dwarfs all other crises in the magnitude of its impact on households, with 62.9% of respondents affected overall. The only exception is Spain: 22.9% of our total Spanish respondents considered the GFC, i.e. the implosion of the Spanish housing bubble, to have had a more long-lasting impact on their financial prosperity (against "only" 55.2% of respondents that say that Covid-19 has had the most damaging effect). Given that they went from the 2008 crisis straight into the euro crisis with no breaks in between, this outcome is hardly surprising. Six years of financial hardship are hard to forget. In contrast, 28.8% of all German respondents reported not having been affected by any of the crises in the last two decades, showing the highest level of resilience in our sample (Figure 1).

The other two countries with relatively high crisis resilience are Switzerland, where 23% of total respondents also said they had not suffered from any crises spanning from the dot-com bubble to the pandemic, and Austria, with 20.5% of respondents being unaffected.

In the U.S., the policy approach to preserve household stability is structurally different, resembling more of an adhoc cash transfer program than a welfare state measure. However, it has worked to a certain degree. 18.6% of our respondents from the 'Land of the Free' remained untouched by any of the crises in the past twenty years, less than in the DACH region, but considerably more than in Spain and even France.

Figure 1: A tale of a crisis-prone century

Question: Which economic crisis / shock² would you consider would have the most long-term impact on your wellbeing and/or economic prosperity? Please choose one (in %).

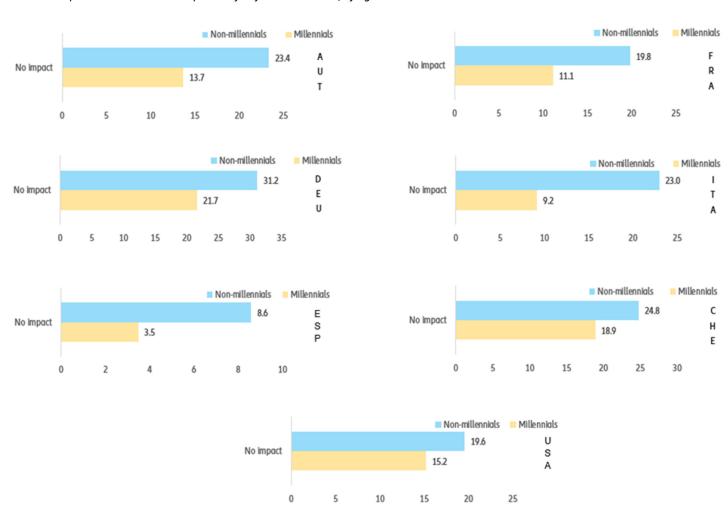


Sources Allianz Economic Research, Qualtrics.

² Dotcom Bubble, GFC, Euro crisis, Brexit, Covid-19.

Our survey results also show that there are two groups that were disproportionately affected by the pandemic: millennials and women. Not only was the starting salary determined for older millennials at the beginning of the GFC, but they have also had to navigate times of low economic growth. A series of Chi-squared tests confirmed what is simply visible in the graphs: the rotten luck of millennials. At a time when millennials should be entering the economic prime of their lives, there is a global pandemic capsizing their chances to catch up to their elders' economic prosperity. The pandemic is a heavier burden on millennial shoulders as they tend not to own homes, and lack precautionary savings or wellestablished careers. The generational divide is gentler in some countries, such as Spain, where the pain of hardship is more or less homogeneous across ages. However, in countries that are "better off" like Germany, the differential of around 10pp is quite large. There are generational differences all across the board, but the most significant are in Italy, where the most affected age cohort in terms of economic crises is the millennials, reflecting their difficulties in entering a still very rigid labor market that mostly protects incumbents over newcomers (Figure 2).

Figure 2: Millennials, no more avocado just toast

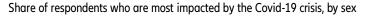


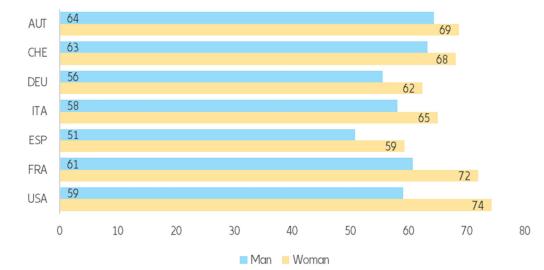
Share of respondents who were not impacted by any of the last crises, by age

Sources: Allianz Economic Research, Qualtrics.

The Covid-19 pandemic has also magnified the pre-existent divides across countries, with women being more impacted, on average, than men. Some of the statistics reinforce this result: women make up more than 85% of nursing personnel, 50% of doctors, and all in all 70% of the workers in health and social sectors globally, according to the United Nations. Furthermore, women are disproportionately represented in the hospitality and services industries, which have taken the hardest hit during the lockdowns. If the jobs held by women are at risk, their financial independence and agency in their households is bound to suffer. This would translate into an enormous setback for gender equality. The differences in the responses to our survey from men and women are astounding. Even though our sample covers very high-income countries, none can claim to have gender equality. The divide, in terms of Covid-19 impact, is not that wide in countries like Austria and Switzerland. However, in Germany, Italy, Spain and France, it is painful to look at, and the widest gap of all is observed in the U.S. (Figure 3).

Figure 3: Girls just wanna have... the same opportunities as men





Sources: Allianz Economic Research, Qualtrics.



INCOME IMPACT OF COVID-19: THE BIASED VIRUS

Not surprisingly, income losses were distributed unevenly across our sample. On average, 30% of our total respondents recorded a loss of income, while only 4.4% said that their income had increased during the pandemic. The countries that had the highest level of income loss were those with the most stringent lockdowns, as well those with a larger share of tourism in their GDPs. In Spain, 38.6% of our respondents declared having lower income because of the pandemic, while in Italy the number is 37.8%. In France, the figure falls to 31.9%, and Switzerland and the U.S. follow with 29.2% and 27.8%, respectively. Austria and Germany reported the lowest percentage of respondents with decreased income at 24.9% and 20.0%, respectively (Figure 4).

Only 3.5% of respondents in France and 2.7% in Spain reported an increase in income. However, in Switzerland, 4.4% of respondents saw an increase in their income due to the pandemic. In the U.S., an astonishing 10.2% recorded an income increase, likely reflecting the "Economic Impact Payment" that was rolled out in April. Under this program, households received payments ranging from USD1,200 to USD2,400 depending on their tax and marital status, and the number of economic dependents. A household with an annual income lower than USD75,000 was prequalified to receive this payment. Moreover, the limit for receiving aid was at USD150,000 annual income per household (without children). Over two months, the American treasury distributed 159 million payments, injecting in

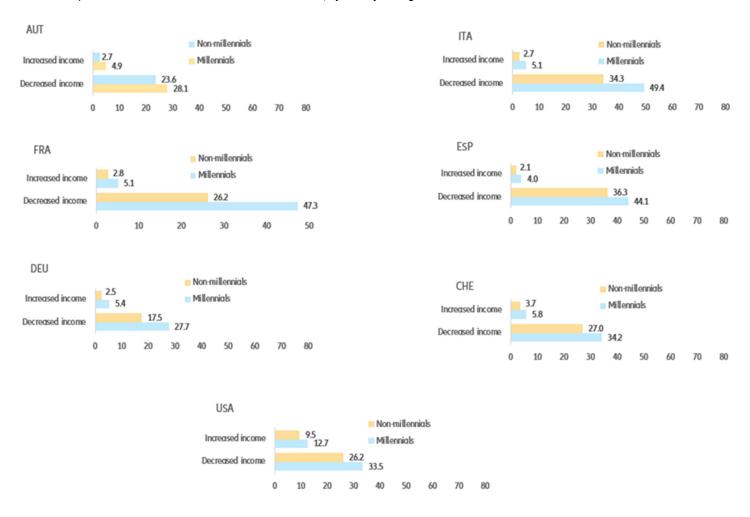
excess of USD 267bn³ into the economy. When looking at different subgroups within our sample, the results are sobering. Figure 4 reveals again rather huge differences between the millennials and non-millennials of our sample - to the disadvantage of the former. While the increased income might have changed in a similar way across age groups, millennials still had a small edge across countries (2.3 pp on average). However, when looking at the minus side of this equation, more millennials reported a negative impact on income than the rest of the age cohorts in our sample. The largest difference was in France, where 47.3% of the millennials surveyed reported a decrease in income in comparison to 26.2% of the other age brackets.

Similarly, in Italy, 49.4% of millennials reported lower income compared to 34.3% of the other generations that were surveyed. In Germany, 27.7% of millennials reported having a decreased income versus 17.5% of nonmillennials. In Spain, Switzerland, the U.S. and Austria the differences were still there but less marked. But there is not only a generational divide. A similar rift can be seen between genders. The worst hit were women in Spain: 43.9% of them reported that the pandemic had an impact on their income versus 32.8% of men that said the same. In France, 38.8% of women reported losing income, compared to 24.3% of men. In Italy, women are also lagging behind (w: 40.7%, m: 34.7%), but the difference is less severe. Switzerland (w: 31.1%, m: 27.7%) and the U.S.

(w: 29.9%, m: 25.3%) also have a difference, but equality is on the horizon. In Germany, the situation was quite gender neutral as 19.1% of men reported an impact and 20.7% of women. The big exception, however, is Austria, the only country in our sample that had a higher percentage of men being affected (26.4%) than women (23.3%). We can only speculate about the reasons. But one factor might be the traditionally high share of male waiters in the Austrian hospitality industry. But overall, there is the very real possibility that this pandemic will set back years of work done in the field of gender equality.

Figure 4: Money on my mind - Impact on income due to Covid-19

Share of respondents who saw their income increase or decrease, by country and age



Sources: Allianz Economic Research, Qualtrics.

Consumption: Not even a pandemic can (completely) stop the machine

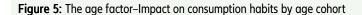
The lockdowns and social distancing measures taken across the globe unavoidably affected consumption, especially at the beginning of the pandemic, when toilet paper and pasta seemed to become the most valuable commodities in the market. Why are policymakers concerned about consumption? Household consumption typically accounts for around 60% of countries' GDP. Therefore, whether we spend our money on goods or services or stop consuming at all is a good gauge of whether we will enter a sustained recovery or remain stuck in the doldrums, necessitating political interventions in some cases. For example, the pandemic pulled the reins on services expenditures, with social distancing allowing for only limited capacity in restaurants or changes to education plans (for 12% of all respondents).

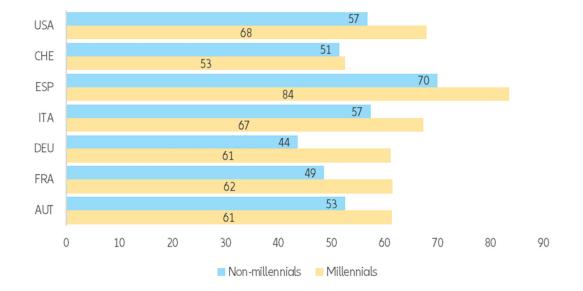
We asked our subjects about how the pandemic affected their consumption. Again, the main differences we observed were by age cohort. Millennials all across the board reported seeing a larger impact on their consumption habits and a lower percentage of them claimed a smaller behavioral change. In Spain, millennial consumers were the group that had the single largest behavioral change in terms of consumption (83.5% recorded a major to moderate change in consumption due to Covid-19). The single largest age disparity happened in Germany, where 61.2% of millennials reported a significant change in consumption, while only 43.7% of the respondents from other age groups answered the same. In France, the difference between age cohorts was 13pp favoring the nonmillennials (61.5%). The only country where the "age differences" are negligible is Switzerland (millennials: 52.5%, non-millennials: 51.5%) (Figure 5).

There are two different reasons behind lower consumption in a pandemic: first, out of necessity i.e. lack of income, and second out of "luxury" i.e. lack of consumption opportunities. In the latter case, "forced" savings will increase the savings rate – and in some cases quite dramatically. When economies open up again, however, things should normalize and these savings should become a phenomenon of the past. In the former case, on the contrary, a normalization cannot be expected as long as the underlying problem – falling incomes – is unaddressed; the recovery path is set to be much rockier. To understand the reasons behind falling consumption, we asked two simple questions: Do you consume more of your income, indicating that respondents struggle to make ends meet, or do you consume less of your income, indicating increased leeway. In this regard, our survey revealed striking differences between the countries in our scope.

We observed similar outcomes in the DACH region: The respondents who consume less of their income – i.e. those who report rising savings rates - outnumber those who consume more of their income by a wide margin. In Austria, 6.4% of our subjects reported consuming a higher percentage of their income, while a little over one third (33.1%) were consuming less of their income. In Germany, the figures were 7.0% versus one quarter of the respondents. In Switzerland, one-tenth consumed more of their income during the pandemic, while 28.1% said they were consuming less (Figure 6). In a nutshell, for most respondents in the DACH region, falling income is not the main problem but rather the lack of opportunities to spend it.

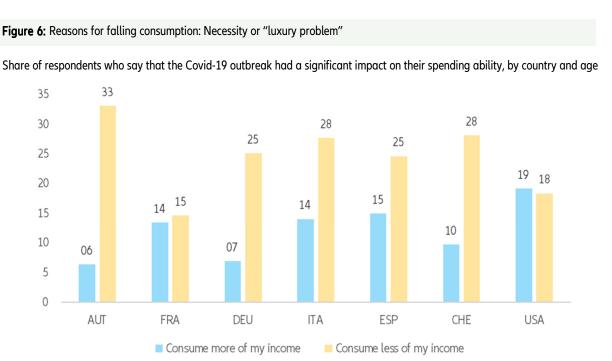






Share of respondents who say that the Covid-19 outbreak had a significant impact on their spending ability, by country and age

In the other countries of our sample, ing towards a tense situation as there is their income, a much higher share of things do not look as rosy. In France and not much leeway left to smooth further respondents, around a quarter in both the U.S., outcomes when it comes to con-shocks. In Spain and Italy, on the other countries, said that they were consuming suming a higher or lower share of in- hand, while around 15% of respondents less of their income, entering the league come are almost equally divided, point- said they are now consuming more of of the passive savers (Figure 6).



Sources: Allianz Economic Research, Qualtrics.

Sources: Allianz Economic Research, Qualtrics.

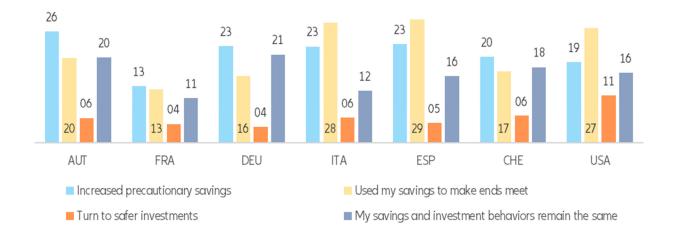
SAVINGS: FOR A RAINY DAY?

On average, household saving rates have increased massively during the pandemic. While a big chunk of those savings might be "forced" savings, resulting from the decreased supply of services due to social distancing rules, some savings might also be the result of households' decisions to try to cushion future shocks in the midst of growing uncertainty ("precautionary" savings). There are two sides to the savings coin: there should be a certain level of liquidity in households to weather storms, but not so much so that there is a massive dent in consumption. While it would be convenient for the economy as a whole to have that money put to good use, in consumers' minds, there seem to be very little options that would actually be worth

spending on: precautionary savings tend to be much stickier than forced ones. Out of our sample, 16% of the respondents claim that their savings behavior remained unchanged, more so in Austria (20.0%) and Germany (20.8%) than elsewhere (Figure 7).

In contrast, 21% of the full sample increased their precautionary savings, which we see reflected in the fresh billions of euros or dollars parked in household bank deposits. Quite surprisingly, U.S. respondents seem to be the most risk-averse: The share of them turning to safer investments is twice as high as in Europe, where we do not observe major distress of the population trying to flee to safer assets. At the same time, in the U.S. (27.0%) – along with Spain (28.9%) and Italy (28.1%) – the share of respondents diving into their savings to make ends meet is by far the highest. If the situation persists, this will change into a more dramatic trend that might turn lead to households acquiring debt to meet expenses. This is a clear call for policymakers to not stop financial support schemes prematurely.

Figure 7: Hiding under the mattress



Share of respondents that reported an impact on their savings due to the Covid-19 outbreak

Sources: Allianz Economic Research, Qualtrics.

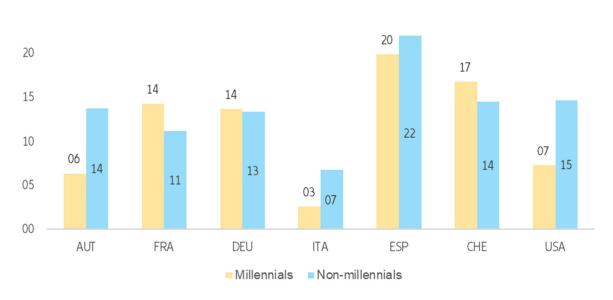
Savings are important for several life stages, not only to cushion the blows of economic shocks (recessions, unemployment, unexpected expenses, etc.), but they also help smooth consumption in times of economic inactivity, such as maternity leave or retirement. However, 21.3% of our respondents have had their ability to save curtailed during the pandemic. This has an impact on retirement and the old-age vulnerability of individuals and the public finances of countries like the ones in our sample that already have a high public burden.

To better understand future plans, we asked our subjects about their financial priorities after the end of the pandemic. The responses were heavily skewed towards taking a holiday (35.7%) and "paying monthly bills" (27.1%). An underwhelming amount of respondents reported having retirement provisions among their financial priorities (13.1%). The lowest reported numbers were in Italy: Only 2.6% of Italian millennials described it as a financial priority, which is worrying as Italy has a very high oldage dependency ratio (36.6% of the active population) that is only set to grow in 2050, according to the UN Population Division (68.8%)⁴. In Austria, millennials also seem unbothered by retirement provisions as only 6.3% listed it as a priority. In the U.S., too, only 7.2% of millennials have retirement as a priority, which is unsurprising because some of them are still paying student debt. A higher number of millennials in France (14.3%), Germany (13.6%) and

Switzerland (16.7%) reported pension provisions as a financial priority. In fact, in these three countries, millennials seems to be more concerned about old -age provisions than the other respondents are (Figure 8).

However, for now, a considerable amount of the respondents would just like to take a break. The once in a lifetime crisis of Covid-19 seems to have had only a limited impact on households' decisions on investing or saving for a more secure future (see box on page 14 for more details).

Figure 8: The generational retirement divide



Share of respondents that declared retirement provisions as a financial priority

Sources: Allianz Economic Research, Qualtrics.

Tell me all about your plans

Every year we check the household financial assets portfolios across the globe, so naturally we wanted to know how the pandemic would – if at all – change preferences for two different financial assets: equities and insurance. Since we are living under a zero interest regime, and cash is the default option for excess savings, we asked our subjects if the pandemic had sparked increasing or decreasing interest in different investment opportunities.

Regarding your insurance, would you like to acquire less, the same or more coverage? If the pandemic taught the world anything it is that tragedy can strike at any moment in time and we might as well be prepared. Thus, risk awareness should increase across the board. Our survey, however, cannot confirm this assumption. Mostly, our subjects would like to keep the same coverage that they had before. However, the countries in our sample that suffered the most from the pandemic have the highest levels of interest in increasing their insurance coverage: the U.S. (17.9%), Spain (15.5%), France (14.7%) and Italy (11.2%). And in the U.S. and Spain, these respondents outnumber those who say that they would like to decrease their risk coverage, albeit by a thin margin. The DACH region shows the lowest interest in increasing coverage (Austria: 7.3%, Germany: 7.7%, Switzerland: 10.2%). Nonetheless, a surprising finding is that there is a significant amount of respondents, particularly in Italy (23.5%) and France (20.7%), that would actually like to decrease the amount of insurance coverage they had before the pandemic. In the DACH region, these numbers are lower but nonetheless higher than those for increasing insurance. Have the past nine months increased our risk awareness? Not for all of us (Figure 9).

Another trend that was supposed to stay with us even after the lockdowns ended is the new interest in equity investments via e-traders, especially among the younger generations. Thus, we asked, regarding your investments in equities, would you like to acquire less, the same or more equities. Predominantly, across all seven countries, the reply was that they wanted to invest in equities as much as before the pandemic. However, 25.8% of the Americans we surveyed displayed an increased interest in dabbling into the stock market. With American fintech companies growing their (fan) membership base, and creating an accessible and "gamified" experience for everyday stock trading, it seems to be in line with what they reported. However, even in the U.S., the share of respondents who would like to invest less in equities is significantly higher. In Europe, the stock market has yet to recoup the loses experienced in March this year. Therefore, it is unsurprising that the European countries in our sample show less future investment enthusiasm for stocks. There is a very small portion of our sample that would like to "reach for the yield" that the stock market currently offers (Figure 10).

As expected, the interest in equity investing is higher among younger generations; 20% of the millennials we surveyed, for example, would like to invest more, against 15% of all respondents. But even in this age group, respondents who plan to invest less in equities after the pandemic are in the clear majority (34%).

This result is a little odd. Because most of the population in our sample knows that the low interest rates are here to stay, very likely longer than expected before: 59% of all respondents think so. However, this seems not to be a determinant for behavioral change in investments.

The upshot: The pandemic seems to have less of a lasting effect on investment decisions than many observers assume. What has been tough about the pandemic is the inconsistency and the volatility, and humans like consistency. We like routine. We like to plan our days so that they are similar than the one before. Perhaps Covid-19 is seen like a momentary shock that will go away and there is no need to change our plans, routines or preferences in the end because of it.

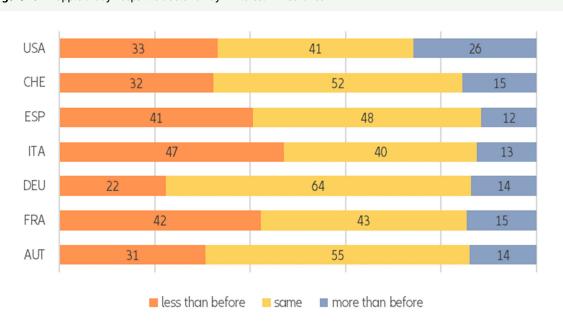


Figure 9: An apple a day keeps the doctor away—Interest in insurance

Source Allianz Economic Research, Qualtrics

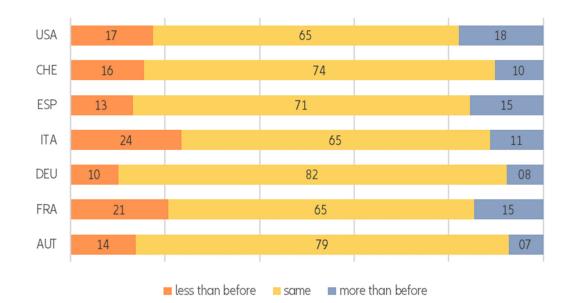


Figure 10: Reaching for the yield? Interest in equities

Sources: Allianz Economic Research, Qualtrics.

FINANCIAL LITERACY: IF YOU KNOW, YOU KNOW

After more than eight months since the first lockdown due to the Covid-19 pandemic, many households are facing financial challenges. While governments are trying to cushion the economic blow of the Covid-19 restrictions, they are far from sufficient to restore pre-pandemic income levels. Financial knowledge is a critical factor that explains why a sector of the population is better able to cope with the shock compared to others. Financial literacy translates into better financial decisions, which lead to greater financial success. To measure the level of financial literacy, we asked four questions relating to different financial skills: numeracy, interest, accounting and inflation⁵. For simplicity, we will refer to the population that answered these four questions as "financially literate" and those that did not answer all four correctly as "financially illiterate".

Only a little over a quarter of our respondents (28.7%), could respond correctly to the four financial literacy questions that we asked. One can hardly blame them as two of the guestions were regarding interest rates (simple and compound), a hard thing to come by in the developed world. The lowest number of adults that could accurately respond to four of our six financial literacy questions were in France (19.2%), Spain (22.1%) and the U.S. (25.0%). Generational differences point to experience (i.e. age), increasing the percentage of the financially literate population with age.

However, the development across countries is homogeneous and too trivial to focus on.

The gender gap exists in financial knowledge, too. Not only are women more prone to be financially illiterate, but also they are more likely to be in temporary, part-time and precarious employment than men are. These jobs come with lower legal protection and pay, creating the perfect storm of financial vulnerability for women. The European Institute of Gender Equality data show that about a quarter (26.5 %) of women employees across the EU are in a precarious job, compared to 15.1 % of men. The Covid-19 pandemic has turned into what the FRED (The Federal Reserve of Bank of St. Louis) has skillfully called a "she-cession".

Women have a unique set of financial challenges: longer life expectancy than men, lower lifetime income than men, and shorter careers or career interruptions due to their childbearing years. Because of these challenges, it is important for women to make sound financial decisions. Financial illiteracy is a widespread problem, even in developed countries. However, it is surprising that the gender gaps in financial knowledge are so widespread within our sample. Also quite surprising is that in the U.S. - neither known for its superior education system nor higher participation rates of women - this gender gap is only half as big as in the European countries.

Figure 11 describes the distribution of financial literacy across countries by gender; we can observe that the deepest differences are in Italy and Spain but they are mostly acute across all countries.

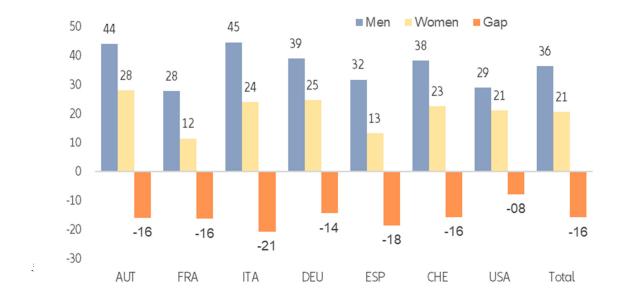
It seems that in countries like Germany and Switzerland, with higher overall levels of financial literacy (DEU: 31.8%; CHE: 31.2%), individuals are financially better prepared for an unexpected income shock, like the one caused by this pandemic. Only the more financially literate individuals manage to save the minimum recommended for rainy days, and are more likely to report a lower negative level of economic impact throughout the different financial areas (income, consumption and savings). Policymakers should place increased attention on take action in financial education. Financial trainings typically give a positive average effect on financial education and - because of their preventive nature - they happen to be cost-effective⁷.

⁵ See Annex for definition of financial skills

⁶ EIOPA (2020)

⁷ Kaiser et al, 2020

Figure 11: Interest? What interest?

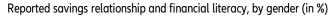


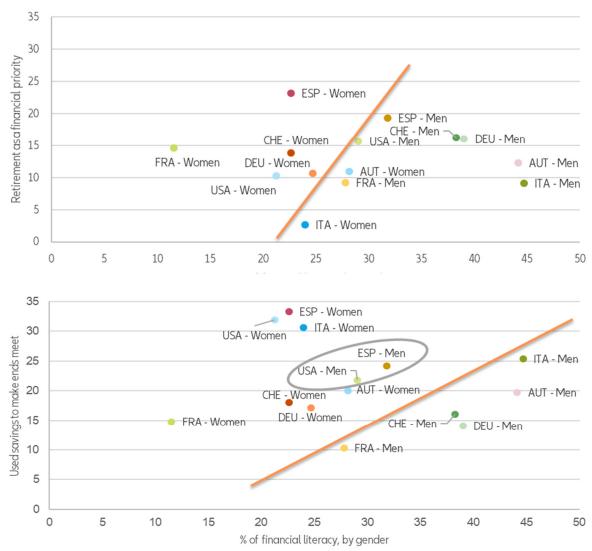
Percentage of financially literate adults among our sample, by country and gender



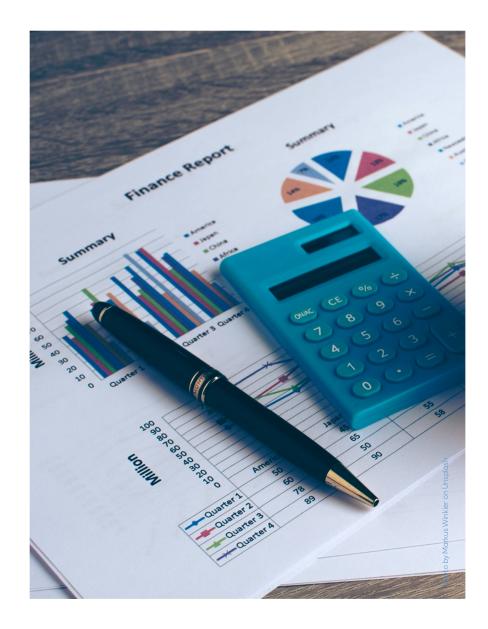
In Figure 12, we observe that some individuals who are less financially literate have a lower interest in retirement provisions and have had to use their savings during the pandemic to make ends meet. This is not a simple relationship: there are country effects and personal finance effects. Although this is a chicken and the egg situation, there is a slight correlation. As an exceptional case, Spanish women display a stronger inclination towards making retirement provisions (23.2%), even if the levels of financial literacy amongst their peers are not the best in our sample. In France, more women are worried about retirement even if they lag behind in financial literacy. Overall, if we consider country effects, we see that women in Switzerland, Austria, Germany, the U.S. and Italy have a lower interest in preparing for retirement as well as a lower financial literacy. Another divide we see is that less women are financially literate and more women have had to use their savings to make ends meet than men have (Figure 12, lower panel). Women have had to dig into their savings to pay for their bills during the pandemic, and even though we might see men in the U.S. and Spain do the same, mostly the relationship holds true: Individuals with a higher level of financial literacy are better equipped to navigate economic uncertainty.

Figure 12: Chicken and the egg





Sources: Allianz Economic Research, Qualtrics.



2.7%

of Italian women make retirement provisions their priority

RISK AVERSE OR REACHING FOR THE YIELD? IT DEPENDS.

Financial risk tolerance is one of the most important factors that affects financial decisions: whether a risk is worth getting insurance, when to take a bet, to invest in the financial markets or even if that trip to the gym is worth the risk during a pandemic. There are environmental and demographical aspects that determine our risk tolerance. In our sample, age, gender, and country of residence could have an impact. To shed more light on these relations, we did a risk experiment with our subjects with a coin flip scenario⁸. However, we were only able to find a clear relationship between risk tolerance and gender: Generally, women seem to be more risk averse than men. But age and country of residence seem to have

no systematic influence. At the same time, we expected that risk skills i.e. understanding of probabilities and diversifications would have an effect on risk tolerance. Thus, we measured the risk diversification and probability skills of our sample (cf. Annex). As with measuring financial literacy, respondents who could answer both questions correctly were deemed - for simplicity risk literate. The results are sobering: Only 27.6% of all respondents are "risk literate". History repeats itself: women are still lagging behind men in basic risk skills. The gap in our sample is 9.6pp. Risk literacy is (a little) better in the DACH region, with Switzerland at the top: 33.6% of Swiss respondents are deemed "risk literate" (Figure 13).

The performance of the U.S. is dismal: both men and women lag behind in risk literacy (m: 23.7%, w: 22.5%). The worst performers in gender gap terms were France (m: 32.8%, w: 25.9%) and Spain (m: 32.4%, w: 19.2%). Policymakers in Spain should pay close attention to these gender gaps; it is a repetitive pattern that should be corrected. In Italy, women have a 9pp difference in risk literacy compared to their male peers. It is the same situation as with financial literacy. The current situation is a call for action for Southern Europe, where the economic situation and gender inequality were already deteriorating before the pandemic.

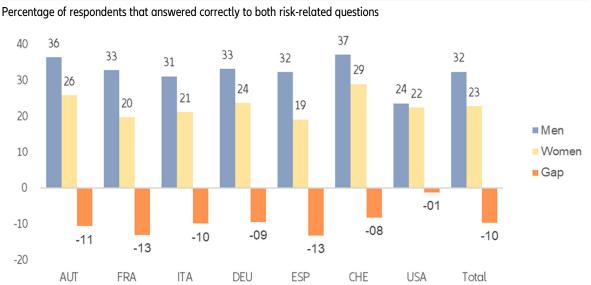


Figure 13: Don't throw caution to the wind

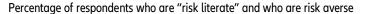
8 Coin flip: Someone offers you a coin flip bet: You can lose \$100, in which case would you accept the bet? Multiple choice. If the subject would never take the bet, we deemed them "risk averse".

Sources: Allianz Economic Research, Qualtrics.

Against our expectations, we were unable to detect any systematic correlation between risk aversion and risk skills. The least risk averse segment of our sample is in the U.S. (men: 41.3%); however, they are also lagging behind in probability and diversification skills compared to the rest of the male respondents in Europe (Figure 14).

The courage of ignorance? On the other hand, Swiss male respondents show an equally low level of risk aversion but are among those with the highest risk literacy. The courage of knowledge? Another example: Women in Germany are the most cautious (68.9%); there is a 10.2pp gap between them and German men, which might reflect a skills gap. Compared to other female respondents, however, the risk skills of German women are not particular weak. The risk-return relationship is not the only determinant of our financial and investment decisions. The decision process is complicated, which is why we see people in our sample with higher levels of financial literacy choosing investment instruments with "variable returns", such as securities (stocks, bonds and mutual funds), while subjects with lower financial literacy prefer instruments that have a certain – albeit negative – return , such as deposits. As we can see in Figure 14, you may have the appropriate risk skills and yet be cautious, based on your experiences or environment.

Figure 14: Risky business



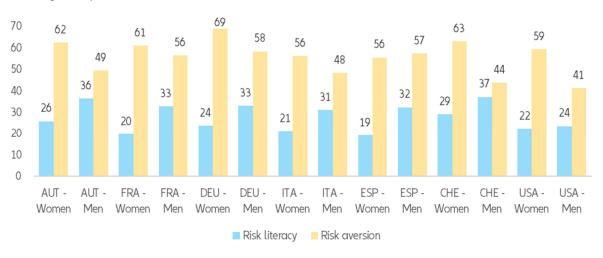
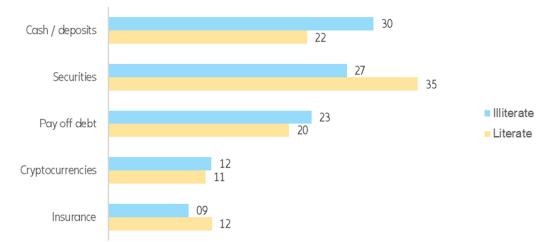


Figure 15: No risk no fun

If you were given \$1,000 to invest in one of the following instruments and leave it for 12 months untouched, which of these options would you prefer? Choose one.



Sources for both figures 14 and 15: Allianz Economic Research, Qualtrics.

Another interesting phenomenon that we found with our sample is that our respondents switch preferences whether they were asked to pretend to invest in an instrument via an endowment, or with their own money. In the population with lower financial literacy, we found that 74.5% of the subjects kept their preferences consistent, while the subjects we deemed as "financially literate" had an 81.9% of consistency in their preferences.

What does this mean for policymakers and the finance industry?

The disastrously low levels of financial and risk literacy are a call for action. The investment environment was challenging even before Covid-19 hit economies and markets. It has become more difficult ever since. Without sound knowledge, many households are doomed to make the wrong financial decisions, with devastating consequences for the financial well-being in the future. The upshot: Inclusive financial literacy should become part of the normal curriculum for schools and the industry should double down its efforts for simple, easy to understand products.



Appendix: Financial literacy and skills

We measured financial literacy by asking four simple multiple-choice questions. Correct answers in bold.

Numeracy: simple interest

"If you invest \$500 in an asset that yields 5% per annum; how much will you have at the end of one year? Please choose."

- a. USD 555
- b. USD 525
- c. USD 535

Interest: compound interest

"Suppose that you deposit \$1,000 in a bank account offering 3% interest, compounded monthly. How much money would you have at the end of 12 months?"

- a. More than EUR 1,030
- b. Exactly EUR 1,030
- c. Less than EUR 1,030

Accounting: net worth calculation

"What is the formula for calculating your financial net worth? Choose one."

- a. Assets minus liabilities
- b. Liabilities minus assets
- c. Assets plus liabilities
- d. Assets divided by liabilities

Inflation: price inflation in terms of their purchasing power

"If in 10 years, the prices in your country double and your income also doubles you will be able to buy...

- (only one answer possible)."
- a. More
- b. Less
- c. The same
- d. I don't know

We measured risk literacy by asking the following to multiple-choice questions:

Probability: mutually exclusive and collectively exhaustive outcomes with a die.

"Imagine we are throwing a loaded die (6 sides). The probability that the die shows a 6 is twice as high as the

probability of each of the other numbers. On average, out of 70 throws how many times would the die show the number 6?" a. 20 out of 70 throws

- b. 30 out of 70 throws c. 35 out of 70 throws
- c. 35 out of 70 throws

Risk diversification: strategies used to manage risk.

"Suppose you have some money for investing. Is it safer to put your money into one business or investment, or to put your money into multiple businesses or investments?"

- a. One business or investment
- b. Multiple businesses or investments
- c. I don't know

Appendix: Survey Data & Statistics

Overall responsibility for methods: Allianz Research, Allianz SE

Planning and drawing the sample: Qualtrics

Target groups surveyed	Austrian resident population, age 18 and over in Austria
	French resident population, age 18 and over in France
	German resident population, age 18 and over in Germany
	Italian resident population, age 18 and over in Italy
	Spanish resident population, age 18 and over in Spain
	Swiss resident population, age 18 and over in Switzerland
	American resident population, age 18 and over in the US

Number of respondents: 6,916 persons (1,013 from Austria, 1,013 from France, 1,007 from Germany, 1,008 from Italy, 1,003 from Spain, 871 from Switzerland, 1,001 from the US)

Sampling method: Representative quota sampling

Qualtrics were given quotas instructing them on how many people to survey and which criteria to use in selecting respondents. The quotas were distributed in accordance with official statistics among gender, age groups, and education.

Representativeness: A comparison with official statistics shows that the survey data on the whole corresponds to the total population age 18 and over in the seven countries.

Type of survey: Web-based survey

Date of survey execution: 28.09. - 21.10.2020

Gender (in % of respondents)

	Total	Austria	France	Germany	Italy	Spain	Switzerland	USA
Female	50.6%	50.3%	52.7%	50.4%	52.2%	52.4%	44.7%	50.7%
Male	49.4%	49.7%	47.3%	49.6%	47.8%	47.6%	55.3%	49.3%

Age (in % of respondents)

	Total	Austria	France	Germany	Italy	Spain	Switzerland	USA
18-24	11.0%	11.7%	11.2%	9.2%	8.3%	8.6%	11.1%	16.6%
25 - 39	26.2%	28.1%	26.9%	24.0%	23.3%	29.6%	29.5%	22.1%
40 - 54	27.7%	29.9%	25.2%	24.4%	28.2%	28.4%	32.0%	26.2%
55 - 105	35.0%	30.0%	36.3%	42.3%	39.6%	33.3%	27.1%	35.2%

OUR TEAM

Chief Economist of Allianz and Euler Hermes



Ludovic Subran Chief Economist ludovic.subran@allianz.com

Head of Economic Research, Euler Hermes



Alexis Garatti alexis.garatti@eulerhermes.com



Eric Barthalon eric.barthalon@allianz.com

Katharina Utermöhl

Senior Economist for Europe

Head of Capital Markets Research



Arne Holzhausen arne.holzhausen@allianz.com

Head of Insurance, Wealth and Trend Research

Macroeconomic Research



Ana Boata Head of Macroeconomic Research ana.boata@eulerhermes.com



Françoise Huang Senior Economist for APAC francoise.huang@eulerhermes.com



Manfred Stamer Senior Economist for Middle East and Emerging Europe manfred.stamer@eulerhermes.com

katharina.utermoehl@allianz.com



Georges Dib Economist for Latin America, Spain, Portugal and Trade georges.dib@eulerhermes.com



Dan North Senior Economist for North America dan.north@eulerhermes.com

Insurance, Wealth and Trends Research

Michaela Grimm

Capital Markets Research



Jordi Basco Carrera Fixed Income Strategist jordi.basco_carrera@allianz.com



Lina Manthey Equities Strategist lina.manthey@allianz.com

Patrick Krizan



Markus Zimmer Senior Expert, ESG markus.zimmer@allianz.com

Senior Expert, Demographics

michaela.grimm@allianz.com



Patricia Pelayo Romero Expert, Insurance patricia.pelayo-romero@allianz.com

Aurélien Duthoit

Equipment

Sector Research



Maxime Lemerle Head of Sector Research maxime.lemerle@eulerhermes.com



Marc Livinec Sector Advisor for Chemicals, Pharmaceuticals, Transportation, Agrifood and Transport Equipment marc.livinec@eulerhermes.com



Ano Kuhanathan Sector Advisor and Data Scientist ano.kuhanathant@eulerhermes.com

aurelien.duthoit@eulerhermes.com

Sector Advisor for Retail, Technology and Household



Selin Ozyurt Senior Economist for France and Africa selin.ozyurt@eulerhermes.com

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Director of Publications: Ludovic Subran, Chief Economist Allianz and Euler Hermes Phone +33 1 84 11 35 64

Allianz Research https://www.allianz.com/en/ economic_research

Königinstraße 28 | 80802 Munich | Germany allianz.research@allianz.com

allianz



Euler Hermes Economic Research http://www.eulerhermes.com/economicresearch

1 Place des Saisons | 92048 Paris-La-Défense Cedex | France research@eulerhermes.com





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