

WHAT HELPED PARTICIPANTS STAY THE COURSE IN 2020?

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EXECUTIVE SUMMARY

This research explores participant trading activity during 2020 for 730,533 participants, with data obtained from Prudential Financial, Inc., with a specific focus on how allocating to a product that provides guaranteed lifetime income is related to participant trading. We find that participants using any type of professionally managed portfolio solution were significantly less likely to trade in 2020 than were self-directing participants. Among participants who self-directed their accounts and who traded in 2020, older participants made changes that were the most significant. These participants were also significantly less likely to use a professionally managed portfolio option, which suggests that those participants who could benefit the most from professional investment management are not the ones receiving it.

Participants who were defaulted in a multi-fund professionally managed portfolio traded less than those who were defaulted in a single multi-asset fund professionally managed strategy (e.g., a target-date mutual fund). While the exact reason for this effect is unclear, a potential explanation could be that the diversification benefits of the multi-fund strategy are more apparent than the benefits for a single multi-asset fund strategy (i.e., the participant would log in and see a fund portfolio with eight or more funds versus holding a single target-date fund, which would appear to be more like a black box).

Older participants (ages 55–70) who had higher allocations to an annuity that provided guaranteed lifetime income were less likely to trade during 2020. This suggests that guaranteed (or protected) income products have the potential not only to simplify the retirement

income decision process, but also to improve participant trading behaviors.

2020: AN UNPRECEDENTED YEAR

While calendar year 2020 started off relatively normally, the arrival of the coronavirus pandemic had an abrupt and significant impact on the economy and financial markets. Market volatility resulted in significant concern among investors and notable changes in participant behaviors. For example, exhibit 1 provides some perspective on the total participant web and mobile logins during 2019 and 2020, and exhibit 2 provides information on total net transfers among defined-contribution (DC) participants; both exhibits are based on data from Prudential.

Keywords: Defined contribution plans; trading; market volatility

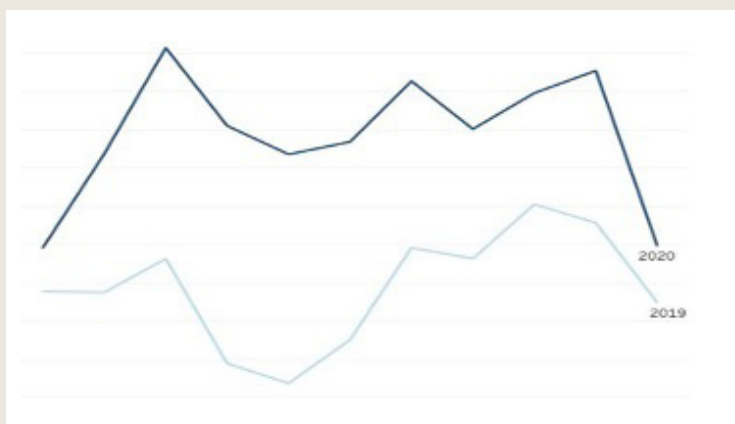


EXHIBIT 1. Total Participant Web and Mobile Logins, 2019 and 2020

Source: Prudential; data as of December 31, 2020.



EXHIBIT 2. Total Net Transfers among DC Participants, May 2019 to May 2021

Source: Prudential; data as of May 30, 2021.

Note: IFX = IncomeFlex.

Both these exhibits suggest that participants were nervous during 2020, resulting in increased trading activity, especially when market volatility increased significantly. Investors tend to react to downturns and/or market volatility by moving to more-conservative portfolios.

Therefore, products and strategies that can keep participants invested during periods of market turmoil can be especially valuable because they effectively protect participants from themselves.

Group	Count
Self-director (SD)	145,028
Defaulted-MFP	97,829
Defaulted-TDF	31,969
Not defaulted-MFP	114,369
Total	389,195

EXHIBIT 3. *Investment Group and Participant Count*

Source: Prudential; data as of December 30, 2020.

DATASET

Data for the analysis are obtained from Prudential Financial, Inc. (PFI), a top recordkeeper¹ with more than 4,300 plans covering approximately 4 million plan participants and more than \$300 billion in assets as of March 31, 2021. The primary objective of this analysis is to understand the impact of both professionally managed portfolios and in-plan guaranteed retirement income options on participant investment behaviors during the 2020 calendar year.

In order to be included in the analysis, the plan had to offer Prudential IncomeFlex to participants as of December 31, 2019.² This requirement limited the initial test dataset to 730,533 participants. We limit the initial dataset to these plans so we can observe behaviors of participants who allocated to IncomeFlex, while we control for access (i.e., all participants in the dataset had access to the product).

A number of filters are included on the initial dataset. For example, the participant had to be coded as active as of both December 31, 2019, and December 31, 2020. In addition, the participant needed to have a balance of more than \$100 in both periods, reasonable age and

salary values, and a balance that did not reduce significantly over the year (which would suggest a potential rollout). While deferral rates are available for roughly half of the participants, income is relatively unavailable and therefore these variables are not included in order to increase the potential sample size.

The test dataset includes both 401(k) plans and 403(b) plans. There is an identifier available whether the participant was defaulted into their current portfolio. Only participants defaulted into a plan offering GoalMaker (GM; a multi-fund professionally managed investment solution built using funds from the underlying core menu at no additional fee) or a target-date fund (TDF) are considered. The filters reduce the test population to 389,195 participants.

There are four potential investment-type groups for participants: participants who are self-directors (SDs), those who were defaulted into a professionally managed multi-fund portfolio (MFP), those who were defaulted into a TDF, and those who opted into a professionally managed MFP. The total participant count by investment group is shown in exhibit 3.

1. PGIM is the investment management business of PFI; PFI is the ninth-largest defined contribution record keeper (out of 34 firms surveyed) in terms of US defined contribution assets under management based on the "Pensions & Investments' Top DC Record Keepers" list published in February 2021. This ranking represents US defined contribution assets under management by PFI as of September 30, 2020.

2. Prudential IncomeFlex has two variants: IncomeFlex Select, which is now closed to new flows, and IncomeFlex Target, which remains open. Select has a minimum investment age of 50, while Target is open to investors of all ages. That said, its use tends to be among the older population (ages 55+) since this is the group whose shrinking time horizon coupled with typically lowered risk tolerance can begin to benefit from an income guarantee.

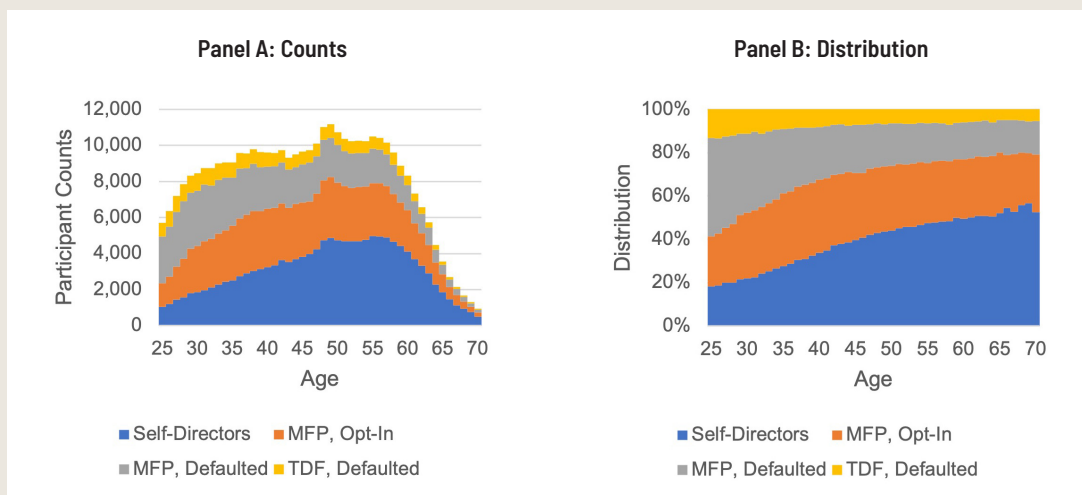


EXHIBIT 4. Participants by Investor Type and Age, Count

Source: Prudential and author's calculations; data as of December 30, 2020.

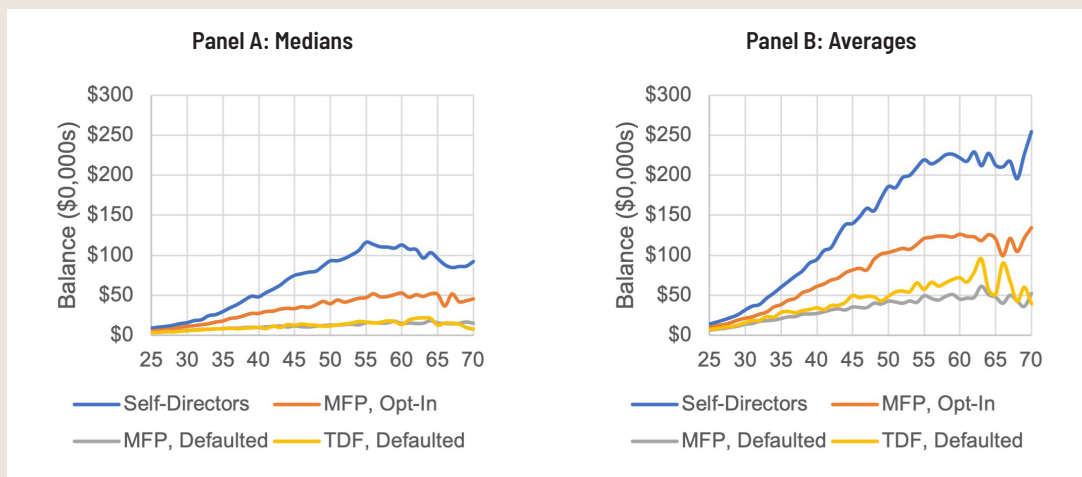


EXHIBIT 5. Plan Balances by Investor Type

Source: Prudential and author's calculations; data as of December 30, 2020.

Exhibit 4 provides some context around the total count (panel A) and distribution (panel B) of participants by investor type and age.

There is a notable decrease in the portion of older participants at older ages; there is also a decline in the percentage of participants in any type of professionally managed option (i.e., an MFP or a TDF), especially

those who are defaulted. While this effect actually is, by and large, related to balances (since older participants tend to have higher balances, an effect explored next) it demonstrates a potential gap associated with the use and acceptance of professionally managed portfolios that exist across participant demographics, which is age in this instance.

		Self-Director					
		Balance Quintile					Tot
		1	2	3	4	5	
Age Group	< 30	13	12	16	23	37	100
	30-39	13	14	17	22	34	100
	40-49	12	14	18	24	32	100
	50-59	12	14	19	24	31	100
	> = 60	13	15	19	24	29	100
	Avg	13	14	18	23	33	

		MFP, Defaulted					
		Balance Quintile					Avg
		1	2	3	4	5	
Age Group	< 30	23	23	22	19	12	100
	30-39	26	26	22	17	9	100
	40-49	32	29	21	13	5	100
	50-59	36	30	20	10	4	100
	> = 60	37	31	19	10	4	100
	Avg	31	28	21	14	7	

		MFP, Opt-In					
		Balance Quintile					Avg
		1	2	3	4	5	
Age Group	< 30	17	17	19	22	26	100
	30-39	17	19	21	22	21	100
	40-49	18	21	22	22	18	100
	50-59	20	22	22	21	16	100
	> = 60	19	23	22	20	15	100
	Avg	18	20	21	21	19	

		TDF, Defaulted					
		Balance Quintile					Avg
		1	2	3	4	5	
Age Group	< 30	24	26	20	16	13	100
	30-39	29	24	19	15	12	100
	40-49	34	25	19	13	8	100
	50-59	37	27	18	12	6	100
	> = 60	39	24	18	13	7	100
	Avg	33	25	19	14	9	

EXHIBIT 6. Distribution of Participants by Age, Balance, and Investor Type

Source: Prudential and author's calculations; data as of December 30, 2020.

Balances provide some context around the implied sophistication of the respective groups. Median (panel A) and average (panel B) values are provided in exhibit 5.

Balances are highest for SDs, followed by an MFP opt-in and the respective defaulted participants (MFP and TDF), which are both very similar and lower.

Exhibit 6 provides additional context regarding the breakdown of age, balance, and investor type.

SDs have much higher balances across the age spectrum, followed by an MFP opt-in, and the two defaulted groups that have relatively small balances, as can easily be seen. This is important context for future analysis,

particularly in light of other research showing that SDs tend to underperform the DC industry as a whole.

Exhibit 7 provides additional descriptive statistics about the participants included in the analysis. Most of the variables are self-explanatory, but additional context is required for gender and marital status, since both gender and marital status technically have three fields each. For gender, each participant is coded as male, female, or unknown. Therefore, context is provided around whether the participant is coded as male or female, where unknown is the omitted variable. For marital status, each participant is coded as single, married, or unknown. Therefore, context is provided

	Change	Age	Tenure	Balance	Male	Female	Single	Married	IFX%	Equity%	401k?
Average	0.07	44.77	8.21	\$89,605	0.51	0.44	0.31	0.39	2.78	67.59	0.74
Median	0.00	45.00	5.48	\$23,623	1.00	0.00	0.00	0.00	0.00	78.08	1.00
Std Dev	0.26	12.08	7.76	\$182,937	0.50	0.50	0.46	0.49	14.66	28.57	0.44

EXHIBIT 7. Descriptive Statistics

Source: Prudential and author's calculations; data as of December 30, 2020.

Note: IFX = IncomeFlex.

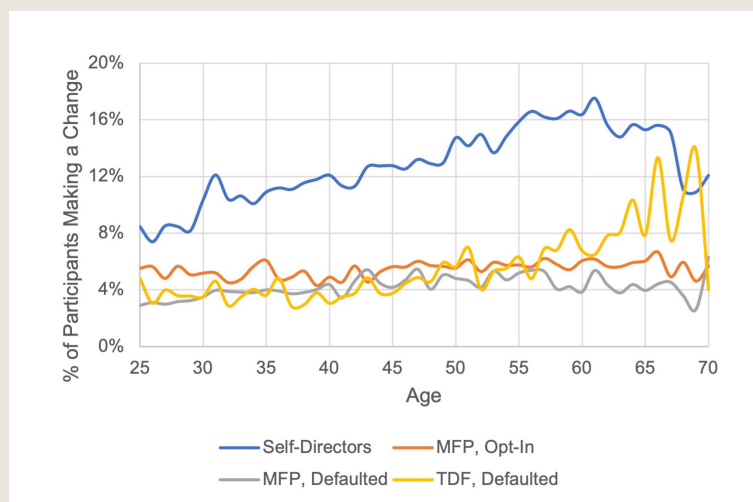


EXHIBIT 8. Percent of Participants with a Change by Age and Investment Type

Source: Prudential and author's calculations; data as of December 30, 2020.

around whether the participant is coded as single or married, where unknown is the omitted variable.

CALENDAR YEAR 2020 TRANSFER RATE

This section explores the transfer rate of participants during calendar year 2020. A participant is coded as initiating a transfer if he or she makes any kind of transfer or investment election during the year. Exhibit 8 includes the transfer rate by age for the four investment types considered.

Approximately 12.8 percent of all SD participants made a change, versus 5.5 percent for an MFP opt-in, 5.5 percent for TDF defaulted, and 4.2 percent for an MFP defaulted.

There are obviously sizeable gaps in portfolio change and/or trading activity among SD participants and the three professionally managed investment strategies, which had relatively similar change rates. We also observe a clear pattern by age, along with a notable balance effect. This specific effect is explored in more detail next; it is especially important to look at this effect since older participants typically have higher balances, which effectively magnifies the financial implications.

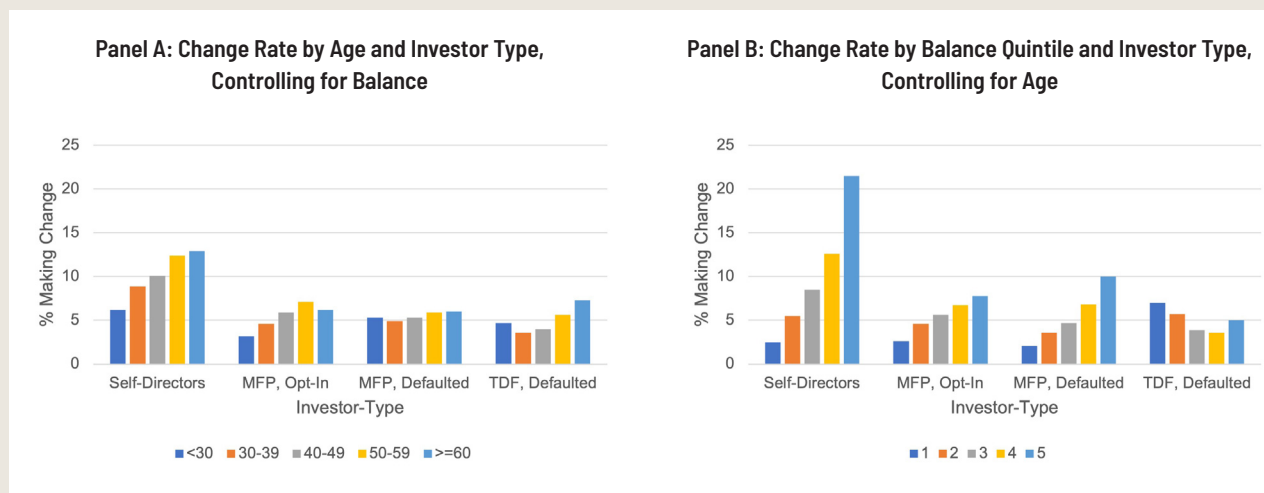


EXHIBIT 9. *Change Rate by Age and Balance by Investor Type*

Source: Prudential and author's calculations; data as of December 30, 2020.

Next, we explore average change rates by investor type by both age and balance, when controlling for either factor, to better understand whether change rates vary more by age or by balance. These results are included in exhibit 9.

Clearly, the relation between change rate and age or balance varies by investor type, although balance has a stronger general effect than age. In other words, the probability of trading is more related to the investor having a higher balance than it is to the investor being older, *ceteris paribus*, although the two are obviously related. For example, the spread between the lowest and highest age groups for SDs is 6.7 versus 19.0 for balance.

Since certain types of strategies may be more popular in plans with different demographics (e.g., higher balances and older workers) it is important to control for the various factors that could be driving the results to ensure the results are truly significant. To do this we run a series of probit regressions and focus on the marginal effects. The results from the regressions are included in appendix 1, but are discussed next.

The regressions also demonstrate that the likelihood of making a change is related, but the nature of the rela-

tionship is more nuanced. While it is appropriate to say that older investors were more likely to make a change, the regression results again suggest it is actually not age that is the primarily driver of the change, with respect to demographic variables.

This point is important for plan sponsors and consultants who are interested in potentially isolating participants into certain groups that may be more likely to transact. While going after older participants would capture part of the effect, age appears to be secondary to other participant attributes, such as balance, and likely income as well.

The results of the regression also suggest that the probability of making a change increases for older participants and for men. It also increases for participants with longer tenure, higher balances, and higher equity allocations, although the relation with allocations was relatively weak. Finally, it increases depending on the type of DC plan, with participants in 401(k) plans being significantly more likely to make a change. The probability of making a change is lower for women and for single individuals.

From this it is easy to see that participants in a professionally managed solution had a lower probability of

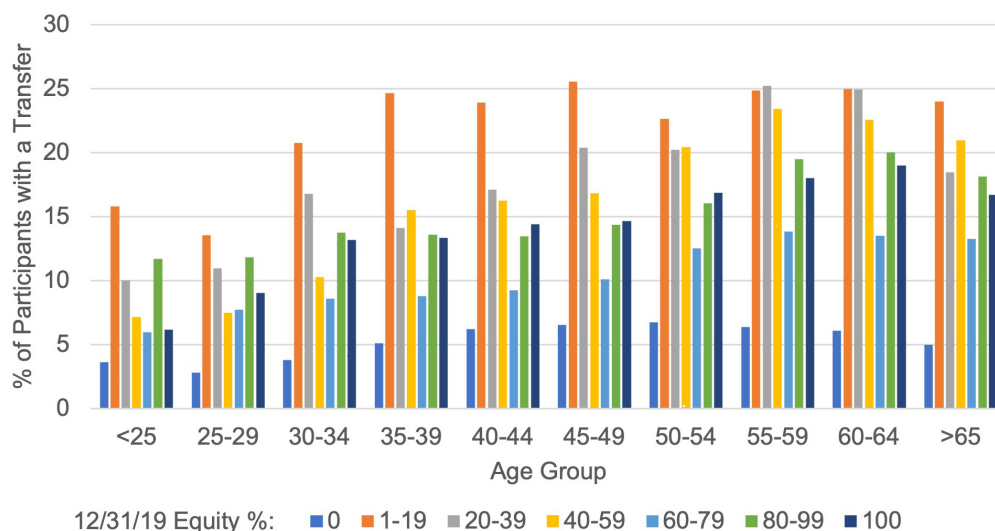


EXHIBIT 10. *Percent of SDs Who Made a Transfer by Equity Allocation and Age*

Source: Prudential and author's calculations; data as of December 30, 2020.

making a change. The reason the coefficient for participants in the opt-in MFP strategy is the most negative suggests that the actual change rate is lower than expected when controlling for balances.

Participants with higher balances have a much higher probability of making change. Participants in default investments (either TDF or GM) had much lower balances.

Overall, the analysis provides relatively compelling evidence with respect to the benefits of offering and actively promoting professionally managed investment options to participants in DC plans.

TRADING DECISIONS AMONG SDS

We observe quite clearly a significantly higher change rate among SDS, who we would expect to be more active. It is also worth understanding how things like equity allocation and age were related to the changes. Exhibit 10 includes some context as to how the percentage of participants who were SDS and who made a change var-

ied by age and equity allocation, based on the respective equity allocations as of December 31, 2019.

Exhibit 10 demonstrates that there was a relatively weak relation to equity allocation, since the changes across the groups are not monotonic (i.e., they are constantly increasing or decreasing). In contrast, the age relation is relatively stark; age was clearly related to making a positive change, with older investors increasingly likely to transact. These results are relatively similar to results in exhibit 9, but provide additional context around the potential effect of equity level, and the subsequent lack thereof.

A series of probit regressions are performed exploring just SD participants; the results are included in appendix 2. The results are effectively similar to the results in appendix 1, which include all participants. Perhaps the most notable finding, again, is the lack of general significance for age when controlling for balance.

Next, we try to better understand the changes in risk (i.e., equity allocations) made by those SDS who made a change. The average equity allocation shift is by age

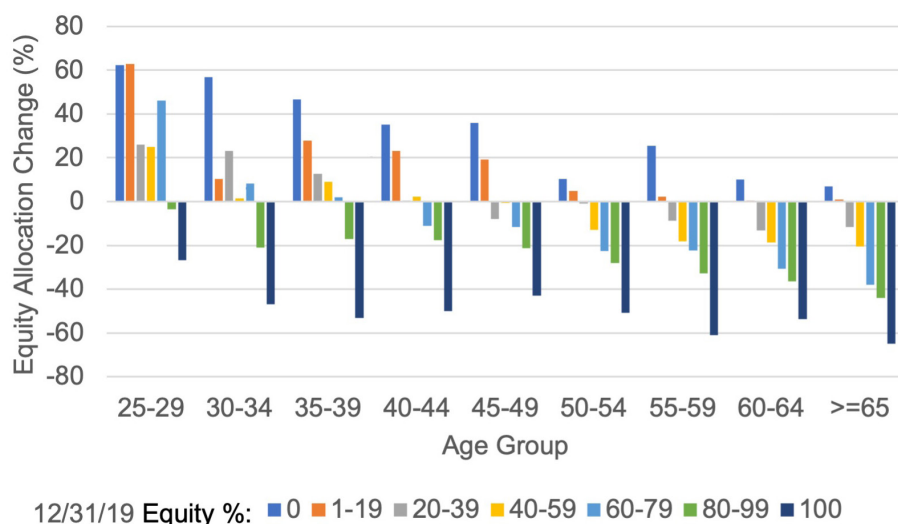


EXHIBIT 11. Equity Allocation Shift among SDs Who Made a Transfer

Source: Prudential and author's calculations; data as of December 30, 2020.

group and equity allocation as of December 31, 2019. The values are included in exhibit 11.

There is an incredibly clear pattern where older participants who invested more aggressively made the largest shifts to more-conservative portfolios. This suggests that older investors reacted significantly more than younger participants to market volatility, and that older investors who decided to transact likely significantly underperformed as a result, given the rally in equities during the latter part of 2020. Given the fact that older participants have larger balances suggests the dollar amount of the underperformance is likely to be significant in absolute and relative terms.

This trading activity is perhaps counter to expectations. In theory, older investors are more experienced, and likely are more sophisticated, and therefore should be less likely to trade. In reality, they were the investors who tended to make the most extreme trades; this suggests that they could benefit the most from any type of professionally managed strategy to help stay the course. At the same time, though, older participants are those who are most likely to self-direct their accounts.

OPTIMAL DEFAULT: MFPS VS. TDFS

Next, we are curious whether MFPS or TDFS resulted in lower trading activity (i.e., whether they performed better as a default investment). Early evidence (see, e.g., exhibit 8) suggests that MFPS had a lower change rate than participants who defaulted into a TDF as of December 31, 2019. For example, exhibit 12 includes the difference in the change rate among participants who defaulted into an MFP versus participants who defaulted into a TDF.

The change rates are significantly lower (i.e., they are more negative) at older ages for the MFP. In theory, this suggests that the MFP is a stickier default for older participants. There could be other variables driving this effect, however, so therefore a series of probit regressions are performed and the results are included in appendix 3.

The results suggest that participants who were defaulted in an MFP were less likely to make a change versus those who were defaulted in a TDF; there is no statistically significant age effect, however. In other words,

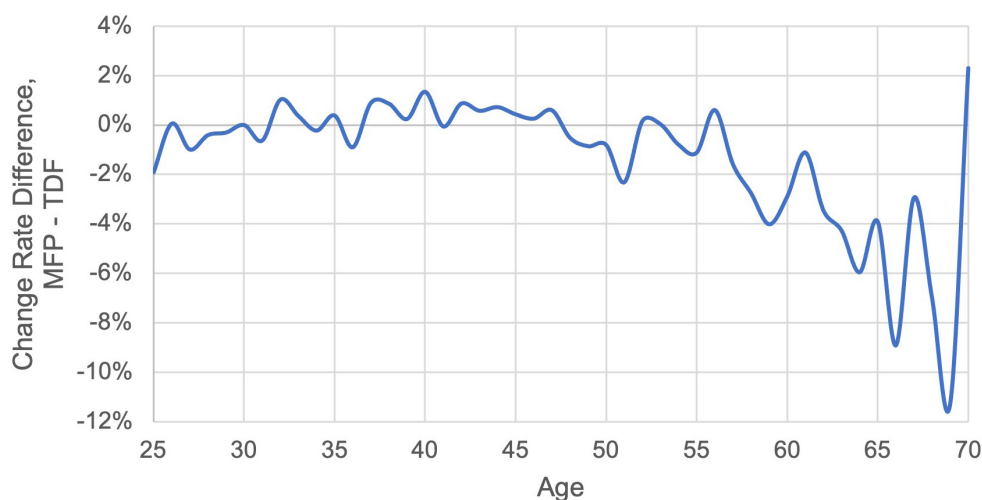


EXHIBIT 12. *Change Rate Difference for Defaulted Participants, MFP minus TDF*

Source: Prudential and author's calculations; data as of December 30, 2020.

while the probit regressions provide strong evidence that participants who were defaulted in an MFP versus a TDF were less likely to transact overall, there is not necessarily an age-related component, or at least there is not one that is linear and/or statistically significant.

Overall, this suggests that both MFPs and TDFs offer significant and very similar benefits to investors. If there is another element—perceived better or more-complete diversification, perhaps—that leads to stickier participant behavior in one versus the other, we must take that into account as well, not just in plan design, but in product design as well.

GUARANTEED INCOME ANALYSIS

Finally, we want to understand the impact that allocating to a guaranteed lifetime income product (GLIP) had on participant behaviors; GLIP is a retirement income strategy that provides participants guaranteed lifetime income that can never decline, regardless of the performance of the market. All participants included in the analysis were in a DC plan that offered a GLIP.

In theory, having an allocation to a product that provides guaranteed income would reduce participant trading behaviors, but it is not necessarily clear if this is the case.

For this analysis the sample is limited to participants ages 55 to 70, since that is the target age for the product, and because age 55 (i.e., 10 years before retirement) is when the GLIP is included as part of the potential portfolio allocation as part of the default investment allocation. There are 94,216 participants that fit within this age group, of which 10,260 have an allocation to GLIP.

Exhibit 13 provides some perspective on the number (panel A) and distribution (panel B) of participants using Prudential IncomeFlex across the four investment types.

More than half of the participants (58 percent) who had an allocation to the GLIP were defaulted into the product, with allocations through the MFP significantly more common than allocations through a TDF strategy.

The allocations to the GLIP, as a percentage of total balance, were relatively constant across ages, as demonstrated in exhibit 14.

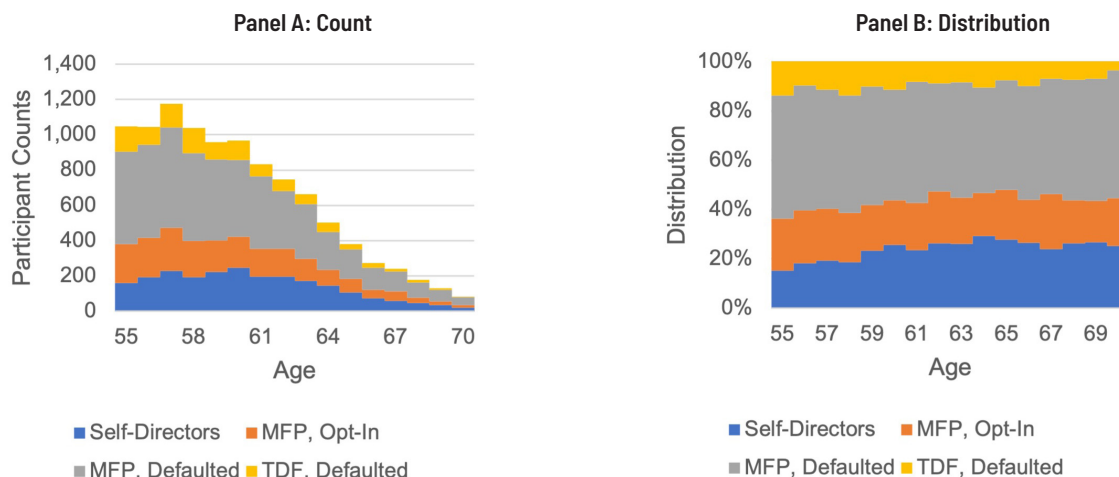


EXHIBIT 13. Participants with a Balance in a GLIP by Investor Type and Age

Source: Prudential and author's calculations; data as of December 30, 2020.

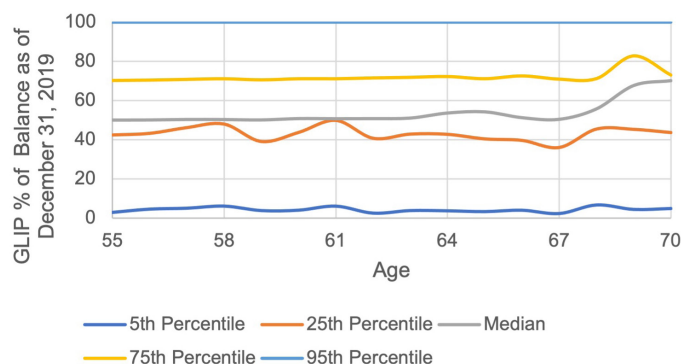


EXHIBIT 14. Distribution of GLIP as a Percentage of Total Balance by Age

Source: Prudential and author's calculations; data as of December 30, 2020.

It is difficult to define who exactly would be considered a participant allocating to the GLIP given the significant differences in allocations. For example, we could assume any participant who had an allocation to the GLIP of more than one penny to be a GLIP investor, but this obviously would not capture the implications by relative balance weight. Therefore, we focus primarily on the percentage of the balance in the GLIP using two

different tests, the first focusing on grouping and the second focusing on relative thresholds.

For the first test, participants are assigned to one of 12 groups based on their GLIP allocation as of December 31, 2019. For each group the percentage of participants who made a change is estimated. The results are included in exhibit 15.

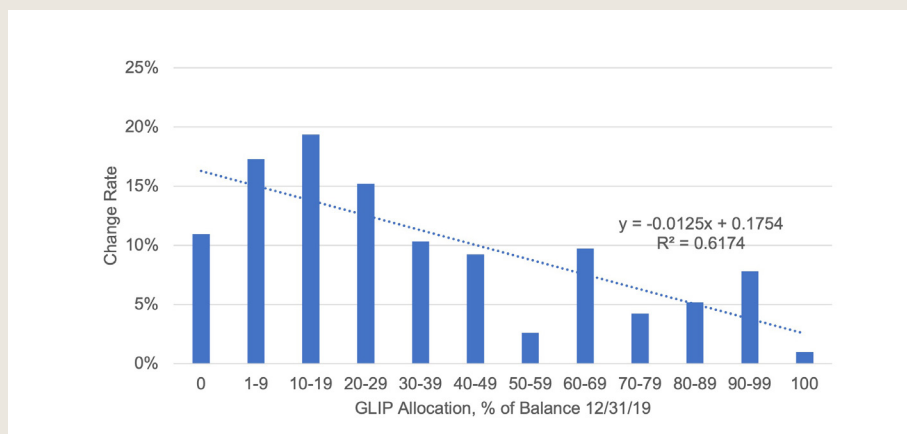


EXHIBIT 15. Transfer Rate by GLIP Allocation Level

Source: Prudential and author's calculations; data as of December 30, 2020.

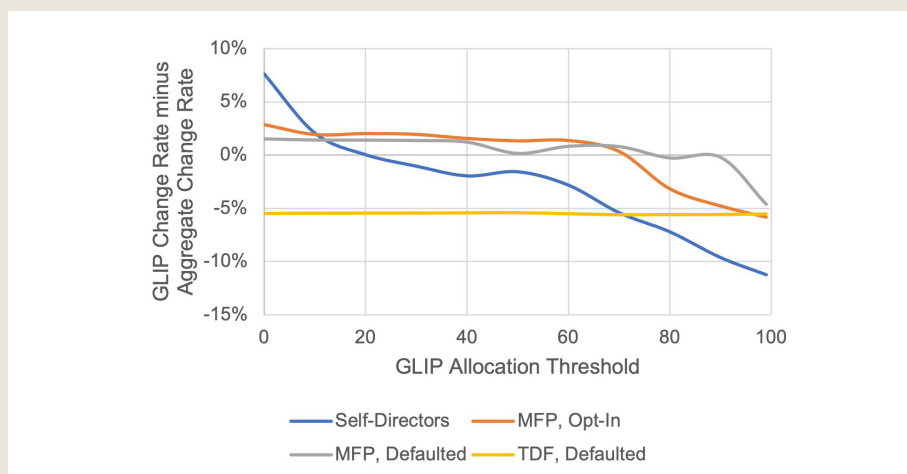


EXHIBIT 16. Transfer Rate Among GLIP Participants Minus Transfer Rate among All Participants, Controlling for Age by Investment Type by Using a Threshold Model

Source: Prudential and author's calculations; data as of December 30, 2020.

There is a relatively clear relation where the probability of making a change decreases as the GLIP allocation increases. In other words, the more a participant had in a product that provided guaranteed lifetime income, the less likely he or she was to trade during 2020; however, participants with smaller allocations (less than 30 percent) had change rates that were higher than those without any product allocation.

Next, we conduct a threshold analysis, where participants are assumed to be allocated to the GLIP as long as their allocation weight exceeds the respective threshold value, which we vary from 0.0001 percent to 99.0 percent. We then compare the change rates for participants who have an allocation to the product to those who do not, to determine what the difference

is between the groups. We run the analysis separately for each of the four investment types and include the results in exhibit 16.

The results in exhibit 16 also suggest that the probability of a participant making a change declines for higher allocations, consistent with exhibit 15, although there are differences across the respective strategies. For example, the change rate appears to decline the most for SD participants and the least for TDF participants.

Finally, we perform a series of probit regressions to understand whether the general relationship is significant after controlling for additional participant demographics; the results are included in appendix 4. The regressions clearly suggest that higher allocations to the GLIP were associated with a lower change rate. There does not appear to be an age effect (i.e., age did not appear to be a significant driver in how participants responded to owning the GLIP); there was a balance effect, however, whereby participants with higher balances were less likely to transact if they had an allocation to the GLIP.

In summary, there did appear to be a benefit to holding a GLIP during 2020 among older participants. Additional research should be conducted on this topic with a larger sample, however, to better understand both GLIP's actual significance and how to ensure it can be replicated before the next downturn.

CONCLUSIONS

While 2020 was a significant market shock, its effects on financial markets were relatively short-lived, even as broader medical, economic, and social events persisted. We are grateful for the market bounce-back but, of course, "Past performance is no guarantee of future results." The brief shock does provide insight into how participants respond to market volatility, especially given the notable structural changes in the DC space since the last major market shock in 2008, when there was relatively little use of default investments (e.g., TDFs) and/or annuities.

This analysis clearly suggests that access and use of professionally managed portfolios can reduce trading activity among DC participants. While older SD partic-

ipants seemed to make the worst decisions (i.e., selling out of equities) they are the cohort who are least likely to use a professionally managed solution.

Evidence suggests that all default investment structures were effective, but there could be an added behavioral benefit associated with displaying a portfolio as an MFP versus a single fund structure (i.e., a TDF, which is the most popular).

There also appears to be some benefit for participants who allocated to an annuity that provides guaranteed lifetime income, and we will continue our research into the levels at which this allocation offers a significant improvement to participant behavior.

Overall, there has been progress, but there is more to do to help participants, especially older participants, stay on course for a successful retirement.

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APPENDIXES

APPENDIX 1: PROBIT MARGINAL EFFECTS REGRESSION RESULTS, DEPENDENT VARIABLE = IF CHANGE (ALL PARTICIPANTS)

Variable	Model1	Model2	Model3
Age	0.098***	-0.002	0.015***
Tenure			-0.135***
ln(Balance)		1.857***	-4.121***
ln(Balance) ²			0.302***
Male			1.139***
Female			-1.175***
Single			-0.971***
Married			-0.131
Equity%			0.003*
401(k) plan?			0.949***
MFP, Defaulted	-6.159***	-3.712***	-3.777***
TDF, Defaulted	-4.058***	-1.827***	-2.105***
MFP, Opt-In	-7.016***	-5.648***	-5.333***

*** $p < .001$, ** $p < .01$, * $p < .05$.

Source: Prudential and author's calculations; data as of December 30, 2020.

APPENDIX 2: PROBIT MARGINAL EFFECTS REGRESSION RESULTS, DEPENDENT VARIABLE = IF CHANGE (SDS ONLY)

Variable	Model1	Model2	Model3
Age	0.187***	-0.078***	-0.007
Tenure			-0.344***
ln(Balance)		4.737***	-5.214***
ln(Balance) ²			0.490***
Male			2.755***
Female			-2.815***
Single			-1.673***
Married			0.271
Equity%			0.000
401(k) plan?			0.581**

*** $p < .001$, ** $p < .01$, * $p < .05$.

Source: Prudential and author's calculations; data as of December 30, 2020.

APPENDIX 3: PROBIT MARGINAL EFFECTS REGRESSION RESULTS, DEPENDENT VARIABLE = IF CHANGE (DEFAULT INVESTORS ONLY))

Variable	Model1	Model2	Model3	Model4
Age	0.054***	0.050***	0.001	-0.002
Tenure			-0.019	-0.019
ln(Balance)			-2.224***	-2.224***
ln(Balance) ²			0.148***	0.148***
Male			1.957***	1.961***
Female			1.580***	1.585***
Single			-1.248***	-1.250***
Married			-0.670***	-0.671***
Equity%			-0.018***	-0.018***
401(k) plan?			2.323***	2.321***
MFP, Defaulted	-1.687***	-2.011***	-1.965***	-2.184***
MFP, Defaulted*Age		0.006		0.004

*** $p < .001$, ** $p < .01$, * $p < .05$.

Source: Prudential and author's calculations; data as of December 30, 2020.

APPENDIX 4: PROBIT MARGINAL EFFECTS REGRESSION RESULTS, DEPENDENT VARIABLE = IF CHANGE (ALL PARTICIPANTS AGES 55 TO 70)

Variable	Model1	Model2	Model3	Model4
Age	-0.003	0.000	-0.006	0.009
Tenure	-0.123***	-0.122***	-0.122***	-0.083***
ln(Balance)	-5.937***	-5.880***	-5.878***	3.067***
ln(Balance) ²	0.426***	0.423***	0.423***	
Male	1.360***	1.360***	1.359***	1.275***
Female	-0.813*	-0.832*	-0.835*	-1.017**
Single	-0.703**	-0.704**	-0.708**	-0.869***
Married	0.492*	0.492*	0.491*	0.457*
Equity%	0.016***	0.017***	0.017***	0.019***
401(k) plan?	0.655**	0.698**	0.696**	0.952***
MFP, Defaulted	-5.002***	-4.797***	-4.795***	-4.683***
TDF, Defaulted	-1.669***	-1.459***	-1.447***	-1.071**
MFP, Opt-In	-6.992***	-6.944***	-6.943***	-6.870***
GLIP%		-0.018***	-0.096	0.061
GLIP%*Age			0.001	
GLIP%*ln(Balance)				-0.008**

*** $p < .001$, ** $p < .01$, * $p < .05$.

Source: Prudential and author's calculations; data as of December 30, 2020.

ABOUT PGIM DC SOLUTIONS

As the retirement solutions providers of PGIM, PGIM DC Solutions¹ plans to deliver innovative defined contribution solutions founded on market-leading research and capabilities. Our highly experienced team will partner with our clients on customized solutions to solve for lifetime income. As of September 30, 2021, PGIM had \$214 billion² DC assets under management and is the top manager³ of stable value assets and provider of in-plan guaranteed lifetime income.

FOR MORE INFORMATION

To learn more about our capabilities, visit pgim.com/dc or contact PGIM DC Solutions at dc@pgim.com.

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1. PGIM DC Solutions does not establish or operate pension plans. PGIM DC Solutions is a Delaware Limited Liability Company, a direct wholly owned subsidiary of PGIM Quantitative Solutions LLC, and an indirect wholly owned subsidiary of PGIM, Inc., the principal asset management business of Prudential Financial, Inc. (PFI) of the United States of America. PFI of the United States is not affiliated in any manner with Prudential plc incorporated in the United Kingdom or with Prudential Assurance Company, a subsidiary of M&G plc, incorporated in the United Kingdom. **PGIM DC Solutions is not currently registered with the Securities and Exchange Commission as an investment adviser.**
 2. Reported data reflects the assets under management by PGIM and its investment adviser affiliates for defined contribution investment purposes only.
 3. PGIM is the investment management business of PFI; PFI is the 9th largest defined contribution record keeper (out of 34 firms surveyed) in terms of US defined-contribution assets under management based on Pensions & Investments' Top DC Record Keepers list published February 2021. This ranking represents US defined-contribution assets under management by PFI as of September 30, 2020.