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EXPERIMENTAL COMPARISON OF TWO ECONOMIC EXCHANGES: LONG-LIVED ASSETS VS. LONG-LIVED ASSETSSHORT-LIVED ASSETS

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Abstract: Lucas tree model [Lucas RE Jr (1978) Asset prices in an exchange economy. Econometrica 46(6):1429–1445.] lies at the heart of modern macrofinance. In essence, it provides an analysis of the equilibrium prices of long-lived assets in an exchange economy where consumption is the goal and the sole purpose of assets is to smooth consumption over time. Experimental tests of the model using specific examples from Luke's model. In this experiment, adopting a different example from the first two, extends the analysis from a two-period oscillating world to a three-period cyclical world; this is partly to test the robustness of the final result. We also go further and compare this solution (with the consumption smoothing problem), where consumption claims are traded through long-lived assets, with an alternative solution provided by the market, where agents can directly trade consumption claims (short-lived) between periods. There is a trade-off end economy that is more efficient at driving consumption smoothing than an economy with long-lived assets. The results found are evidence of uncompetitive trading in both markets.

Keywords: asset market experiments, Lucas model, incomplete Bewley markets.

Introduction

The aim of this paper is to study and compare the performance between two exchange economies, one for long-lived assets and the other for short-lived assets (where agents can indirectly or directly trade consumption through time) with respect to two main items that related to each other: 1. performing agents to facilitate consumption through time,2. a market that successfully reaches the equilibrium price.

In its simplest form, the model considers an infinite world of discrete periods in which there are perishable money (apples) and long assets (trees) that pay your sister in money. Next, we take ideas from Asparouhova et al. (2016) paper of two assets and divides it into twelve treatments (having one bond-like and one stock-like asset but both involving fixed income streams like the other two papers), so that we can isolate the comparative static impact of asset duration on the relative price of value fundamentals. Dividing asset duration by treatment, during the simplification steps (which we will explain briefly), allows us to see in the data what degree of asset complexity and induced outcome complexity hinders convergence to the fundamental value and how much relative noise is involved in the process. We add to previous literature by comparing this (long-lived) asset market solution (for consumption levels) with an alternative market for short assets, which we call “market lending.” In summary, this paper contains three main differences from previous literature:1. extending the two-period (oscillating) frame of Cockett et al. (2019) into a three-period (cycle) framework; 2. comparing behavior in asset markets with that in credit markets; 1. examines the effect of converting the yield function from a concave function to a step function. The comparison of behavior in the asset market (long lived) with the asset credit market (short lived) is motivated by the idea that balances are clearer in the latter: the calculated expected value for short lived assets is a subject that it's very easy as we explained in Part 3. This will be explained in detail later, but it's easy to explain: hereby, mapping the end-of-period token holders, interpreting it from our experimental perspective; We derive key propositions, especially about equilibrium asset prices and consumption leveling, which we test with our experiments.

Table 1. Asset Market Parameters and Equilibrium

	Variable	Type 1 subjects	Type 2 subjects	Type 3 subjects
Periods 1, 4, 7, …	*Initial assets*	9	3	5
	Dividend income from initial assets	8	10	10
	Units of the asset sold	−3	2	1
	Income from selling assets	−30	20	10
	Next period assets	3	3	4
	Tokens income	109	49	59
	End-of-period tokens	79	79	79
Periods 2, 5, 8, …	Initial assets	3	3	4
	Dividend income from initial assets	6	6	8
	Units of the asset sold	2	−4	2
	Income from selling assets	20	−40	20
	Next period assets	1	7	2
	Tokens income	53	113	53
	End-of-period tokens	79	79	79
Periods 3, 6, 9, …	Initial assets (trees)	1	7	2
	Dividend income from initial assets	2	14	4
	Units of the asset sold	1	2	−3
	Income from selling assets	10	20	−30
	Next period assets	8	5	5
	Tokens income	67	45	105
	End-of-period tokens	79	79	79

Notes. Items in bold are exogenous. Items in *bold italics* are exogenous in the first period of a sequence.

Discussion Review

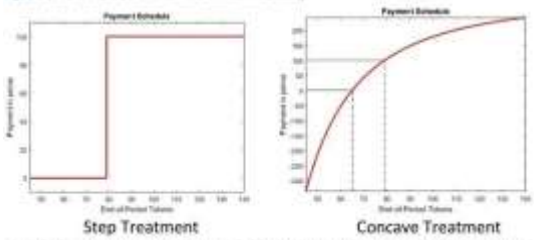
There is an extensive experimental literature from the 1980s on asset markets, which has improved our understanding of price formation in asset markets. Early studies such as Plott and Sunder (1982), Forsythe et al. (1982), and Friedman et al. (1984) Agents are motivated to trade by providing heterogeneous dividend values. They found that market prices tend to converge towards rational expectations. Smith et al.

Table 2. Credit Market Parameters and Equilibrium

		Type 1 subjects	Type 2 subjects	Type 3 subjects
Periods 1, 4, 7, …	**Tokens income**	109	59	69
	Receipt from making credit contract	−30	20	10
	End-of-period tokens	79	79	79
Periods 2, 5, 8, …	**Tokens income**	53	123	61
	Receipt from delivering on credit contract	36	−24	−12
	Receipt from making credit contract	−10	−20	30
	End-of-period tokens	79	79	79
Periods 3, 6, 9, …	**Tokens income**	67	55	115
	Receipt from delivering on credit contract	12	24	−36
	End-of-period tokens	79	79	79

Notes. Items in bold are exogenous.

Figure 1. (Color online) The Conversion Scales from Tokens to Money



Notes. [illegible]

Other Literature Stream Studies Static Capital Asset Determination Model in the Laboratory with only income from assets and no labor/endowment income; The main studies here are Bossaerts and Plott (2002), Asparouhova et al. (2003), and Bossaerts et al. (2007). In our experimental design, we follow and extend the design of Cockett et al. (2019) to test the Lucas model with heterogeneous agents and varied personal income streams. Crockett et al. (2019) have subjects exchanging assets on the market, which pay a certain dividend (two cash units in one, three treatment units in the other) at the beginning of each period to become the holder's asset. Compared to Cockett Asset Market et al. (2019), we examine a more complex setting by increasing the induced agent heterogeneity: in our design, we have three types of agents with revenue cycles, while Criek et al. (2019) have two different types with high and low income in turn. First, Asparouhova et al. (2016) subject to trading two securities for cash; Fixed income consoles that pay 0.5 cash units in each period and risk assets, which pay zero (bad conditions) or one cash unit (good conditions) according to the state of the economy. Our exchange economy involving short-lived asset claims shares important features with the Bebley model and leads for equilibrium consumption that are identical to the Lucas model tree in our design.

Theoretical Background

Is the conversion scale (concave) into money and where ct (end of money) is given by ct mt + dat - plt (at + 1 - at at), where is in possession of the asset at the beginning of period T and PLT is the price of the asset in the period t. The decision to optimize for all (risk-neutral 6) individuals in period T is to maximize ∑ Hudge t βt- 1 (CT) (1) subject to the above phrase. In stationary equilibrium PLT = PLT+1 = PL and therefore PL β 1 - β D. (2) This is an equilibrium of constant asset conditions, which implies constant equilibrium returns in our setting. In this case, the agent exchanges, at a certain price, units of perishable money (apples) in one period for the promise of units of money in the next period (apples in the future). If someone wants to buy units of money ST in period t, promising to pay back units of money ST+1 entering period t+1, then, at the price PS, he must pay back psst = st+1 units of Money in T+1. Therefore, in equilibrium, the discounted value of one unit of money at T+1 is equal to the value of one unit of money at T. The reason is straightforward: If I sell one unit today for PS tomorrow (the price denoted by PS), my expected return equals βP (where β is the continuation probability).

Application to Experiments

In case of quantity/number of masks, which they can use as an alternative to delivery orders, the detailed subject of the current number of tokens and the number of tokens in the next period in return.11 Orders for the outstanding limit are visible on the screen For all subjects in the order book, always reported in price/quantity display, ordered by price.12 Limit orders of the same price are ordered chronologically upon arrival. In each period, which lasts three minutes, trading of the asset, or trading in the credit market, can be carried out, using a well-known double auction mechanism implemented using Z-Tree13 (Fischbacher 2007); For recruitment, we used hroot (Bock et al. 2014). Type1 subjects have token income of 109, 53, 67,109, 53, 67, and so on; Type 2 subjects have token income of 49, 113, 45, 49,113, 45, and so on; Type 3 subjects have token income of 59, 51, 105.59, 51, 105, and so on. The payout for each period depends on how many tokens they have at the end of the period. With both functions, if the subject ends the period with 79 tokens (librium equi end-of-period token balance), they will receive a £1 payout for that period. With the step payoff function, the subject's marginal profit is infinite at around 79 tokens if the end-of-period balance is less than 79 tokens and zero beyond that point. For example, Type 1, who starts with no assets, would have to buy three units in Period 1, sell two units in period 2, and sell one unit in period 3, returning to zero in the final cycle (period 4). This explains our conversion scale in treatment 1: effectively we are telling them that they should aim for a final token holding of at least 79; This guarantees them a payout of £1 per period. We do not allow them to trade in such a way that their tokens will go below 45 As far as the credit market, again we have a continuation probability of five/six, the balance price (short asset) given by Equation (3) is 1.2. Again, we have cyclical and deterministic token income: Type I subjects have token income of 109, 53, 67, 109, 53, 67, and so on; Type 2 subjects have token earnings of 59, 123, 55, 59, 123, 55, and so on; Type 3 subjects have 69, 61, 115, 69, 61, 115, and so on. For example, type 1 should sell 30 tokens in period 1, get 36 tokens back if period 2 is reached and, if so, then it should sell 10 tokens in period 2, get 12 if period 3 is reached, and so on.

Final Achievement

In total, 288 subjects participated in the experiment: 12 subjects in each of six independent sessions for each of the four treatments. The average subject age was 22.23, the average Cognitive Reflection Test score was 1.46.15 and 56.60% were female subjects. By participating in the experiment, subjects earned an average of £18.30. The experiment lasted an average of two hours including reading the instructions and personal payment of cash to the subjects. The various treatments are summarized in Table 3.

As we explained from the start, there are two key items of interest:

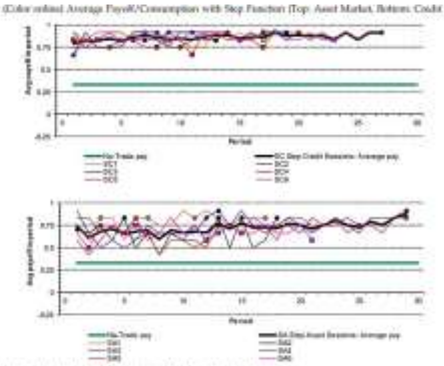
(1) whether subjects managed to consume-smooth and

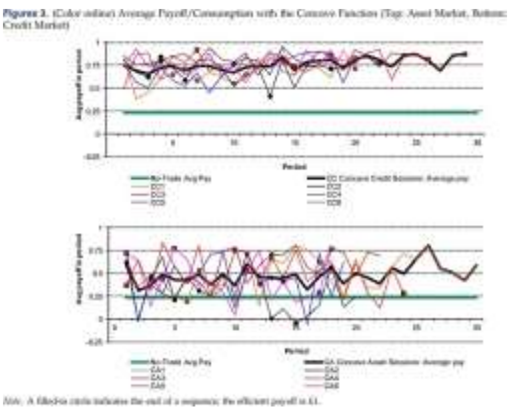
(2) whether the price reaches its equilibrium.

Table 3. Experimental Treatments—Number of Sessions Each with 12 Subjects

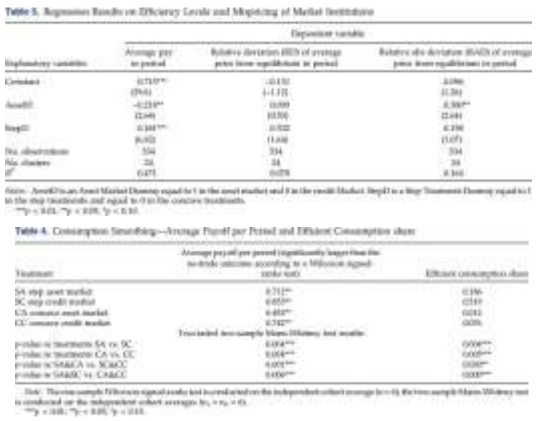
		Market	
		Asset	Credit
Payment function	Step	6	6
	Concave	6	6

Note that:
(1) is not a necessary but a sufficient condition for
(2) by adding up behavior such as competition in the market. This, however, depends on how the subject behaves.
Result 1 (Consumption Smoothing). (a) Smoothing consumption observed in each treatment. (b) Consumption smoothing works better in credit markets than in asset markets and better with a graduated payoff function than with a concave payoff function.
Figures 2 and 3 show the average results in each period of each experimental session. Table 4 summarizes the average results by market and by payout function. The efficient consumption level in his experiment was 79 tokens, implying a return of £1 per period. The consumption level without trade implies an average payout per period of £0.333 with a gradual payoff function and £0.2033 (type 1), £0.1133(type 2), and £0.68 (type 3) with a concave payoff function .
A. The observed average level of return significantly exceeds the level of consumption without trading in every market and for every payoff function (see Table 4).
B. The average results recorded in Table 4 indicate that the credit market has a higher level of consumption than the asset market for each payment function.
The difference in returns between asset markets and credit markets and the difference in the relative frequency of efficient consumption levels are significant at the 5% level for each payoff function. The relative frequency of efficient consumption is also very different between asset markets and credit markets for both payment functions. Additionally, the differences between payout functions are significant for both markets. The results of the two-tailed two-sample Mann-Whitney test are shown in the bottom line of Table 4.
16 In the first column of Table 5, we report further supporting evidence of the statement of treatment effects from dummy regressions with standard errors ro bust. Outcome 2 (Equilibrium Price). (a) Near pricing equilibrium is observed in asset and credit markets and with step and concave payoff functions. (b) Deviations of asset markets from equilibrium prices are greater in magnitude than in credit markets.
A. Figures 4 and 5 show the trajectories of average prices and equilibrium prices for each condition treatment. Table 6 records the average price, the average of the relative deviations, and the average of the absolute relative deviations from the equilibrium price. It is a standard measure in experimental asset market measurements to identify mispricing (see Stockl et al. ¨ 2010).





The relative deviation and relative absolute deviation are defined as follows:

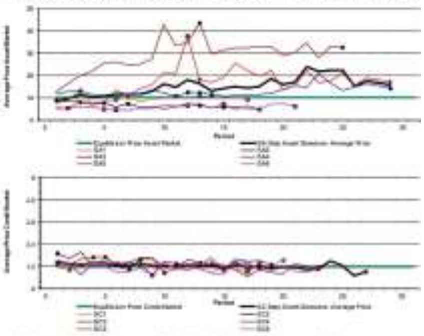


Average prices are recorded in Table 6.

Across treatment conditions, we observed no significant departure from equilibrium, as was also implied by relative deviations. In the step asset market, the economic deviation is large because prices in one market (session SA4, see Figure 5) deviate more from equilibrium than in the other. The two-tailed Wilcoxon sample test of the equilibrium hypothesis of pricing results is not significant at the 10% level; for the staged asset market treatment, the p value is 0.60. The relative deviations noted showed no significant differences between treatments. The p-values are recorded in the table.

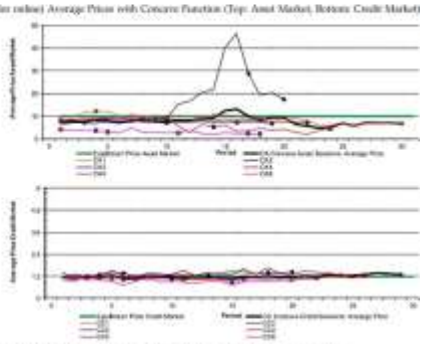
A. There are differences in mispricing between treatments. The difference from the equilibrium predictions is shown in Figures 4 and 5 by the spread around the predictions, which appears to be smaller in credit markets than in asset markets. The absolute relative deviations that measure these deviations from the predicted equilibrium are significantly smaller in credit markets than in assets. market. The p-values of the two-tailed Mann-Whitney sample are reported in Table 6. The payoff function, on the other hand, has no significant effect on mispricing in terms of Relative Absolute Deviation (RAD), but the price level as measured by Relative Deviation (RD) appears slightly lower with concave payouts. Regression analyzes with robust standard errors reported in Table 5 underscore this observation

Figure 4. (Color online) Average Prices with the Step Function (Top: Asset Market, Bottom: Credit Market)



Note. A filled-in circle indicates the end of a sequence; scale is five times the equilibrium price of 10.

Figure 5. (Color online) Average Prices with Concave Function (Top: Asset Market, Bottom: Credit Market)



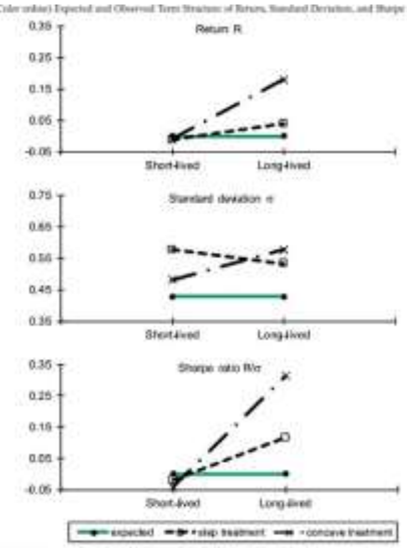
Note. A filled-in circle indicates the end of a sequence; scale is five times the equilibrium price of 1.2.

1. Robustness Check

We have performed the analyzes in Tables 4 and 6 on when subjects had the most familiarity with the settings. All significance levels reported in Tables 4 and 6 are fully supported; in fact, significance tends to increase. There is one difference: the relative deviation of the RD equilibrium in a concave asset market is significantly different (smaller) from that in a concave credit market. The Mann-Whitney test for this difference yields a p-value of 0.055, whereas it is 0.149 in Table 6.

We noticed, in looking at the period-by-period prices in Figures 4 and 5, that there appeared to be a (partially burst) bubble in the step asset sessions SA2 and SA5 and a (burst) in the concave asset session CA2. We suspect that this deviation from equilibrium is due to hoarding; 19 we explore this possible explanation in Section 7. We also note that bubbles in credit market sessions (Figures 4 and 5) are conspicuous by their absence.

Figure 6. (Color online) Expected and Observed Term Structure of Returns, Standard Deviation, and Sharpe Ratio



Note. Credit market represents the short-lived claims and asset market the long-lived claims.

Uncertainty and Instability of Price Returns in the Future

One possible explanation for the greater deviation from equilibrium in asset markets compared to credit markets is uncertainty about the price of future claims. This uncertainty impacts long-term (asset) markets differently from short-term (credit) markets. In credit markets, this uncertainty

Table 7. Average Return, Standard Deviation and Sharpe Ratio

Treatment	Average return R (significant differences from expected Sharpe ratio of zero indicated)	Average standard deviation σ (significant differences from equilibrium prediction of 0.428 indicated)	Sharpe ratio R/σ (significant differences from expected Sharpe ratio of zero are indicated)
SA (step asset market)	[illegible]	[illegible]	[illegible]
SC (step credit market)	[illegible]	[illegible]	[illegible]
CA (concave asset market)	[illegible]	[illegible]	[illegible]
CC (concave credit market)	[illegible]	[illegible]	[illegible]
	Two-tailed two-sample Mann-Whitney test results		
p-value in treatments SA vs. SC	[illegible]	[illegible]	[illegible]
p-value in treatments CA vs. CC	[illegible]	[illegible]	[illegible]
p-value in SA&CA vs. SC&CC	[illegible]	[illegible]	[illegible]
p-value in SA&SC vs. CA&CC	[illegible]	[illegible]	[illegible]

Note. The one-sample Wilcoxon signed-ranks test is conducted on the independent cohort averages [illegible]; the two-sample Mann-Whitney test is conducted on the independent cohort averages [illegible].
[illegible]

nothing, because tomorrow's return is certain today. The standard deviation of returns represents an ex post measure of this uncertainty. The price for return uncertainty is often represented in the Sharp Ratio. The Sharpe ratio measures an investment's risk-adjusted rate of return, specifically its investment (excess) return per unit of risk denotes the return on a risky investment, Rf the return on a risk-free investment, and the standard deviation of risky returns measures the risk of an investment. Standard theory suggests that investors prefer high to low Sharpe ratios. Since we do not have a risk-free rate in our experimental setup, we calculate the Sharpe ratio as the ratio of returns to the standard deviation of returns. The return on long-lived assets is the sum of capital gains and dividend yield, namely Rt = (pLt + dt)/pLt-1− 1. The return on short-lived assets is simply price minus costs, Rt = pSt-1 −1. In fact, this is the return when the sequence does not end in period t-1. If the sequence terminates, the return is −1. Therefore, the expected return for both short-lived and long-lived claims is zero in our setup and the variance is 0.183.20 The equilibrium Sharpe ratio is constant at zero for both short-lived and long-lived claims. To estimate the Sharpe ratio from our data, we use the return on the average price of the period and the standard deviation across all returns in one session. Note that recent empirical literature reports a pattern of decreasing Sharpe ratios (van Binsbergen et al. 2012, van Binsbergen and Koijen 2017). Van Binsbergen and collaborators attribute this empirical pattern of decreasing Sharpe ratios to the empirical risk of rare disasters in which long-lived hits return more than short-lived returns. In our setting, of course, the risk of rare disasters is not present.

Result 3 (Sharpe Ratio Structure). The term structure of the Sharpe Ratio is non-decreasing. Figure 6 shows the terms return structure, standard deviation, and Sharpe ratio in our experiment. The corresponding sums of the average Sharpe ratio, the average return, and the average standard deviation are recorded in Table 7 for each treatment. As shown in the table, the Sharpe ratio deviates significantly from equilibrium predictions in the concave payoff treatment of asset markets. In treatment step level payments, the signs are the same; but statistical significance was not achieved at the 10% level. Overall, we find much higher Sharpe ratios for long-lived than for short-lived asset returns. The Sharpe ratio of short-lived asset returns does not differ from the zero-equilibrium prediction.

Table 8. Regression Results on Efficiency Levels and Mispricing of Market Institutions on Concentration of Claims

Explanatory variable	Average Pay	RD	RAD
Constant	0.779***	0.022	0.140***
	(20.1)	(0.710)	(7.84)
HHI	0.072	0.019	0.112*
	(0.79)	(0.11)	(1.73)
AssetD	−0.063	−0.384	0.028
	(−1.08)	(−1.67)	(0.17)
AssetD x **hhi**	−0.800***	2.80***	2.09***
	(−4.43)	(7.76)	(6.48)
No. observations	534	534	534
No. clusters	24	24	12
R^2	0.352	0.132	0.252

Note. AssetD is an Asset Market Dummy equal to 1 in the asset market and 0 in the credit Market.
***$p < 0.01$; **$p < 0.05$; *$p < 0.10$.

Table 9a. Regression Results on Efficiency Levels and Mispricing of Market Institutions on Concentration of Claims (Concave Treatment)

Explanatory variables	Average Pay	RD	RAD
Constant	0.707***	0.048	0.167***
	(13.0)	(0.50)	(7.63)
HHI	0.158	−0.147	−0.034
	(0.96)	(−0.57)	(−0.25)
AssetD	−0.123*	−0.846***	−0.214*
	(−1.95)	(−5.95)	(−1.97)
AssetD x **hhi**	−0.822***	3.44***	2.47***
	(−4.42)	(6.64)	(7.97)
No. observations	270	270	270
No. clusters	12	12	6
R^2	0.465	0.423	0.415

Note. AssetD is an Asset Market Dummy equal to 1 in the asset market and 0 in the credit Market.
***$p < 0.01$; **$p < 0.05$; *$p < 0.10$.

Results 3 are somewhat contradictory to those reported by van Binsbergen and Koijen (2017): in laboratory conditions, we failed to reproduce the decreasing pattern of Sharpe ratio term structure observed in real-world data (van Binsbergen and Koijen 2017). A possible reason is that our experimental design involves no risk of rare disasters. Patterns in our data suggest that investors in asset markets command a premium for uncertainty about future prices. Asparouhova et al. (2016, p. 2731) reach a conclusion regarding the failure of rational expectations to predict price volatility observed in the data, given the complex environment: "Agents must form expectations about endogenous uncertainty, [. . . whereas the theory assumes] that the agent knows the (endogenous) mapping. state the price."

Table 9b. Regression Results on Efficiency Levels and Mispricing of Market Institutions on Concentration of Claims (Step Treatment)

Explanatory variables	Average Pay	RD	RAD
Constant	0.876***	0.027	0.137***
	(68.8)	(0.46)	(5.73)
HHI	−0.071	0.070	0.166**
	(−1.32)	(0.37)	(2.43)
AssetD	−0.079**	−0.057	0.193
	(−2.88)	(−0.15)	(0.65)
AssetD × **hhi**	−0.451***	2.74*	2.03
	(−4.87)	(2.00)	(1.68)
No. observations	264	264	264
No. clusters	12	12	12
R^2	0.455	0.132	0.232

Note. AssetD is an Asset Market Dummy equal to 1 in the asset market and 0 in the credit Market.
***$p < 0.01$; **$p < 0.05$; *$p < 0.10$.

Reasons for Mispricing and Loss of Efficiency

As shown above, future price uncertainty impacts long-term (asset) markets differently than short-term (credit) markets. To insure against uncertainty about future prices, subjects in the asset market may begin to hoard assets. In the credit market, subjects do not have the opportunity to accumulate short-term claims, because current claims are no longer valid. live tomorrow. A way to investigate nonequilibrium behavior as stockpiling in market concentration measurements. Competitive equilibrium assumes a "large enough" number of participants. Although many other, usually simpler, experiments have observed competitive behavior with n = 12 subjects or less, perhaps this experiment was too complicated and there were too few subjects. It is possible that some subjects realized that the market was not truly competitive and therefore they could try and impose some monopoly power. One obvious way to do this in an asset market session is to try and build a large asset holding and then hold for the high price when offering to sell. So, if an asset becomes concentrated in the hands of a small number of subjects, prices can be forced upwards.
Salah satu ukuran konsentrasi (dalam memegang sebagai set) adalah indeks Herfindahl Hirschman,

yang kami dilambangkan dengan hhit;

$$hhi_t = \sum_{i=1}^{N} s_{it}^2,$$

where sit is the share of future claims of subject i (= 1..N) outstanding claims at the end of the period. In asset markets, sit is a relative of the holder of the subject asset to 40 assets in circulation.21 In credit markets, sit is the number of subject next period tokens at the end of the period relative to the endogenous number of all next period tokens. Therefore, one hypothesis is that prices in asset markets may be an increasing function of hhi, leading to mispricing and allocative inefficiency.Result 4 (Investor Concentration). The Herfindahl Hirschmann index helps explain differences between treatments in (a) efficiency and (b) mispricing. A. In the first column of Table 8, we report regression results with robust standard errors showing the effect of investor concentration on efficiency. The results show that there are differences between the asset market and the credit market reduced by differences in investor sensitivity to concentration. When claims concentration is high in asset markets, returns are significantly reduced compared to credit markets. In Tables 9a and 9b, we report stock concentration effects for con cave payments and step payments separately.

Table 10. Average hhi Measures Across Periods and Treatments

Treatment	Period 1, 4, 7, …	Period 2, 5, 8, …	Period 3, 6, 9, …
Asset market equilibrium	0.085	0.135	0.125
SA (step asset market)	0.149	0.174	0.182
CA (concave asset market)	0.174	0.193	0.204
Credit market equilibrium	0.194	0.139	n/d
SC (step credit market)	0.288	0.261	0.333
CC (concave credit market)	0.257	0.262	0.284

B. The third column in Table 8, as well as in Tables 9a and 9b, shows the dependence of mispricing in terms of relative absolute deviations from equi librium prices on investor concentration. The results show that investor concentration has a small but generally significant impact on mispricing. However, this effect increases significantly in the treatment asset market, as revealed by the importance of the interaction effect. Interaction effects are particularly important in asset markets with concave yield functions. Interestingly, the effect of investor concentration appears to have a positive sign as shown in the second column where we report the impact of investor concentration on the relative deviation from equilibrium prices. Thus, the data shows that asset market prices are higher when investor concentration increases. In Table 10, we show the average hhi number for each treatment and show the difference in predicted hhi number. Interestingly, deviations from predicted values in asset markets are not higher than in credit markets. However, stock concentration has a different impact in the market for short-term claims than in the market for long-term assets. We also look at alternative explanations for why efficiency and mispricing are worse in asset markets than in credit markets. 22 However, neither alternative story captures the differences as well. haha. Our data show that asset duration, price volatility, and stockpiling are closely related to each other. This causal relationship could be an interesting question for further research.

Closing/Conclusion

For both price and efficiency, the market for long-lived assets produces greater deviations from equilibrium than the market for short-lived assets. A suggested reason for the greater deviation from equilibrium in asset markets compared to credit markets is uncertainty about the price of future claims. Van Binsbergen and collaborators report that this observation contrasts with standard model predictions that suggest no lower risk-adjusted returns on long-term assets than on short-term assets. The bottom line would seem to be that the market for long-lived assets can help people to smooth consumption but that the market for short-lived assets does it better.

Referensi

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