

I. Is the contribution of the paper potentially significant?

In essence, the paper describes the optimal investment behavior of some risk-neutral informed financial institution in a distressed market. Market distress originates from a negative shock to the price of the risky asset which is amplified by uninformed trend followers. Both the negative shock and its amplification imply (i.) that the financial institution faces the risk of (partially or totally) liquidating the investment in the risky asset at an unfavorably low price when being hit by a random cash outflow on the one hand and (ii.) that the financial institution can earn a return equal to the size of the shock - equal to the price depression - when the random cash outflow does not force liquidation of the investment on the other hand.

Major results are ceteris paribus (i.) how optimal investment is linked to the trend followers' price impact compared to funding liquidity and (ii.) how funding liquidity affects optimal investment.

Assessment. The paper sheds light on the role of funding liquidity of financial institutions in a distressed market and provides a valuable alternative in explaining the investment behavior of financial institutions in a distressed market. The idea in the present paper is similar to the one in DeLong et al. (1990). Namely, an informed investor might be forced to liquidate at disadvantageous prices - that is before prices recover from some shock - and uninformed investors (noise traders) potentially further depress the price.

II. Is the analysis correct?

In my view, the results are obtained in a rigorous way and the analysis is not flawed mathematically. However, the analysis draws on a set of quite specific assumptions which must be highlighted clearly. As regards the interpretation of the results and the conclusions, the authors are - in my opinion - pushing their results too far.

The authors write about arbitrage profits. In Finance, an arbitrage opportunity does not require any net investment. This stands in sharp contrast to the financial institution's investment policy in the present paper. I suggest to talk about an informational rent instead of arbitrage profits as the financial institution knows that the depressed price will recover to the fundamental value for sure. Note that the greater the negative shock to the price is the higher is the informational rent to be earned.

The authors say that the financial institution faces liquidity risk. In the present paper, liquidity risk - more precisely, a liquidity shortfall - occurs when the random cash outflow exceeds the cash position established upon investment. Thus, the financial institution is forced to liquidate the investment in the risky asset at an even lower price. (Note that the trend followers depress the price beyond the depression due to the negative shock and by unwinding the investment the financial institution further depresses the price.) Liquidation is required partially or totally depending on the size of the random cash outflow which is the actual source of uncertainty modeled in this economy. In my view, the relevant driver of the results is not liquidity risk per se but the restriction that the financial institution is unable to borrow funds upon realizing the cash outflow θ . Put differently, the major driving force behind the results is credit rationing. In this model, if the financial institution was able to borrow funds upon facing the cash outflow it could do so and earn the size of the shock for sure.

To sum up so far, the financial institution is not engaging in arbitrage but earning an informational rent on its superior knowledge of the fundamental value on the one hand and lacks borrowing facilities on the other hand. Note that the authors mention this borrowing prohibition at the end of section 3.2 but should do so earlier in the study when introducing their notion of liquidity risk induced by the random cash outflow.

The authors assume some deterministic price process. Here, this means that the price impact of the trend followers and of the financial institution is given exogenously. The endogeneity of the price process at date $t=2$ in equation (2) is solely through the investment decision μ and the residual cash investment c , but the price impact of both the trend followers and the financial institution is exogenous.

As regards the determination of the equilibrium investment μ^* from (5), it would be nice to mention explicitly the constraints (i.) $c=f-\mu$, (ii.) $R=1+s-\mu$, and (iii.) $v=(\mu \alpha)/((1+\mu) R)+c$ where (iii.) follows from equation (2) for $v=\theta$. This means that c , v , and R in (5) are endogenous.

The trend followers' price impact at date $t=2$ is given by α . In (8) the authors provide a restriction on the trend followers' price impact. This should be discussed upon introducing the price process right after (1) where it is claimed that "... the market price is assumed to decline to α/R due to the behavior of trend followers." Note that $\alpha/R < 1$ and $R > 1$, know already on page 3, delivers the restriction.

The authors discuss market stability in section 3.2. I disagree strongly. Nothing is said about whether the price recovers more quickly due to the financial institution's investment. The resiliency of the price is exogenous to the model. After the negative shock at date $t=1$ the financial institution knows that the price will recover at date $t=3$. This is independent of the financial institution's investment. However, in this section the authors discuss the trade-off between a risk neutral informed trader's wish to trade infinite amounts in order to earn an infinite informational rent versus the risk of being forced to liquidate at date $t=2$ totally or partially at some disadvantageous price due to the borrowing constraint. At the optimum investment, the marginal informational rent equals the expected cost of total or partial liquidation at some disadvantageous price.

I am missing a discussion of the economic meaning of α . (Remark. I suggest to think about it as the trend followers' price impact.) Note that for sufficiently low α compared to funding liquidity f , the financial institution trades more aggressively upon an increase of the negative shock. So with strong adverse impact of the trend followers on the price, the expected loss from total or partial liquidation increases what implies an increased investment aggressiveness (rent seeking) of the financial institution endowed with funding liquidity f . Consistently, for large α compared to funding liquidity f - that is for a minor price depression through trend followers - the investment aggressiveness is reduced in a larger negative shock. But again, the investment aggressiveness has nothing to do with market stability.

The authors argue along (7) that the funding liquidity f and the shock s are symmetric. Mathematically, this is true. However, as can be seen from figure 4, there are values of s which do not yield an equilibrium for the corresponding f value. Thus, economically both variables definitely are not symmetric.

To summarize, I assess the paper to be correct mathematically. However, the authors (i.) could improve the outline of the ultimate economic setting including the implications of their specific set of assumptions (In particular, the role of α .), (ii.) should elaborate on the true driving forces behind the results (Rent seeking and credit rationing instead of arbitrage and liquidity risk, respectively.) and (iii.) should deliver a more appropriate interpretation of their results (Rent seeking in the presence of credit rationing and liquidation risk but not market stabilization.)