Response to Berk and van Binsbergen

Note of the Relation between "Assessing Asset Pricing Models using Revealed Preference" and "What risk factors matter to investors? Evidence from mutual fund flows"

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October 9, 2014

Berk and van Binsbergen claim that we have pursued a research topic without appropriate attribution and that the idea for our paper “Which risk factors matter to investors” emanated from a discussion between Berk and Odean in March 2012. These accusations have taken many forms including emails to us, letters to our deans, claims in their paper, and a publicly posted chronology outlining Berk and van Binsbergen’s perception of events. In our opinion, Berk and van Binsbergen’s perception of events stem from two false assumptions: (1) the origins of our paper stem from a discussion between Odean and Berk and (2) we intentionally failed to cite their preliminary working paper when we posted the first draft of our work.

Our work is independent of Berk and van Binsbergen and did not emanate from a gym conversation between Berk and Odean. We defend ourselves against these allegations in detail below.

Berk and van Binsbergen allege that we intentionally overstated our contribution and knowingly failed to cite them in the first draft of our working paper, which we posted to SSRN on March 14, 2014. We first became aware that Berk and van Binsbergen had completed a preliminary draft of their paper on March 26, 2014, when we received an email from Berk and van Binsbergen providing us with a link to their paper. Despite knowing that we were pursuing a similar research project, Berk and van Binsbergen chose not to inform us that they posted a preliminary draft of their work in October 2013. We did not cite their paper in our first draft because we were unaware of its existence. Made aware of this unintentional oversight, we posted a revision of our paper that restated our contribution and cited Berk and van Binsbergen.

We have been deeply saddened by these false accusations. Friendships have been broken, and professional relations strained.

In the remainder of this note, we provide our chronology of events and address the challenge to the independence of our work. In their chronology, Berk and van Binsbergen cite emails we sent in ways we consider out of context and misleading. To establish context for all email correspondence, we append complete email correspondence to this note.
Paper Chronology

March 2012: We (Brad Barber, Xing Huang, and Terrance Odean) start work on our paper “What risk factors matter to investors? Evidence from mutual fund flows.” By late April 2012, we have results showing that CAPM alphas better explain mutual fund flows than other models we test.

August 2013: We have an unfinished paper including 7 tables documenting all of our main results.

September 27, 2013: During an interview in her office Xing Huang mentions our study to Jules van Binsbergen. Van Binsbergen replies that he and Berk are working on a related project.

October 17, 2013 (20 days later): Berk and van Binsbergen post to the SSRN a preliminary draft of their paper titled “Assessing asset pricing models using revealed preferences.” They do not send us a copy of their paper. We are unaware that they have posted a paper.

December 5, 2013, we submit an abstract to the JOIM conference series. February 19, 2014, we submit to the European Finance Association Meeting. March 4, 2014, Odean presents at the University of Stavanger.

March 14, 2014: We post our paper to the SSRN. We do not cite Berk and van Binsbergen because we have not seen their paper. We assumed they would send us their paper when it was ready to cite and, in early 2014, their paper did not turn up in the first 100 hits of a search on the SSRN website for title, abstract, abstract ID & keywords “mutual fund flows.”

March 26, 2014: Berk sends us an email informing us of the Berk and van Binsbergen working paper posted on SSRN. We decide to complete some additional analyses, then read their paper, and post a revised version of our paper with an appropriate citation.

April 24, 2014: We post a revised paper to the SSRN. We cite Berk and van Binsbergen's working paper noting, at their request, that their paper was first posted to the SSRN in October 2013 and ours in March 2014. We remove a sentence in our earlier draft overstating our contribution.

May 1, 2014: We post another version to the SSRN citing Berk and van Binsbergen's working paper using precisely the language they request. In the following week, we are each informed that our Dean's have received letters from Berk accusing us of three serious ethical violations:

1) Not citing Berk and van Binsbergen in our working paper. By the time Berk wrote, he knew that we had added the citation to our paper. Furthermore, he didn’t send us a link to his paper until after we posted ours.

2) Overstating our contribution. Again, by the time Berk wrote, he knew that we had restated our contribution.

3) Not reading his paper. We read his paper 15 days (not 5 months) after he emailed us a link.

In our opinion, Berk and van Binsbergen's perception of events stem from their misinterpretation of communications between us. Our failure to cite their working paper in the first draft of our paper was an oversight that occurred because we were unaware they had posted their preliminary draft. Working papers often miss related citations. Authors ask to be cited and get cited, which is what happened here.

1 We characterize their paper as preliminary because the title page stated "Preliminary and subject to change." Furthermore it was 10 months before they posted a second, much more complete paper to the SSRN. The second paper is twice as long (38 pages), has twice the number of references (28 vs 14), twice as many tables (6 vs 3), and substantially more words and lines per page (e.g., 36 lines vs 26 lines on page 1). Furthermore, the numerical results in the tables are different in the second draft.
In his March 26, 2014 email Berk wrote:

"But the more disturbing part of this is that I could swear that I told both of you about this idea quite some time ago. I am certain that I mentioned we were working on this when I presented at the Davis conference, and, perhaps I am not remembering correctly, but I could swear that Terry and I spoke about this in the gym when I lived in Berkeley."

The Davis conference was in June 2013. After we informed Berk that we'd been working on the paper since March 2012, he replied that he must have told Odean about the idea while working out at the gym in February 2012. While Berk’s chronology implies that we started work on our paper in March 2012 after had a conversation with Odean in February 2012, the causality actually goes the other way. Only after learning that we started working on our paper in March 2012, did Berk decide that he must have told Odean about his idea in February 2012. In a discussion with Barber and Odean, Berk initially said that he didn’t explicitly remember talking to Odean about this in February 2012, later he became certain the conversation took place.

Berk writes that he told Odean:

“When you sort by managerial compensation, net alpha is unpredictable using the Vanguard benchmark but is predictable using FFC factor specification. Since compensation is determined by AUM, this meant that flows were not flowing to positive alpha investment opportunities under the FFC factors but were under the Vanguard benchmark.”

Odean does not recall this conversation, but it is possible he could have forgotten it. While the predictability of FFC alphas may have inspired Berk and van Binsbergen’s paper, it did not inspire ours. We did not get the insight that mutual fund flows can be used to infer investor risk preferences from Berk; neither Berk and van Binsbergen nor we were the first to infer risk preferences from flows, e.g., “Do Investors Care about Risk? Evidence from Mutual Fund Flows”, 2011, Clifford, Christopher, Jon Fulkerson, Bradford Jordan, Steve Waldman, http://ssrn.com/abstract=1752362, (currently titled “Risk and Fund Flows,” 2013).
From: Xing Huang to Brad Barber & Terrance Odean, September 27, 2013.

(Quoted incompletely in Berk and van Binsbergen’s chronology.)

Hi Terry and Brad,

Hope you are doing well. Jules van Binsbergen (in Stanford, Berk's coauthor) is visiting our department today. During our meeting, I mentioned our project, and it seems that they have a very similar paper, using mutual fund flow to imply what risk model investors are using. So what do you think? what shall we do now?

I also saw Brad may've saved a draft doc in dropbox with some comments on revising the tables and figures. Should I fix those quickly and get our draft ready?

Best,
Xing

(Emphasis added)

[NOTE: Since Berk and van Binsbergen were aware of our contemporaneous work on the topic, we did not anticipate they would attempt to claim the precedence of their work and decided to continue work on additional analyses that were in process rather than quickly post the existing draft of our paper. We were unaware that Berk and van Binsbergen had posted a working paper until March 26, 2014, the date on which we received the following email from Berk.]

From: Jonathan Berk jbberk@stanford.edu, March 26, 2014

Terry and Brad ---

Jules happened to notice the following paper on SSRN:


There are a number of levels I find this disturbing. The most obvious is that Jules and I have a working paper that does exactly the same thing that we have been circulating for over 6 months:

http://ssrn.com/abstract=2340784

But the more disturbing part of this is that I could swear that I told both of you about this idea quite some time ago. I am certain that I mentioned we were working on this when I presented at the Davis conference, and, perhaps I am not remembering correctly, but I could swear that Terry and I spoke about this in the gym when I lived in Berkeley.

--- Jonathan

From: Terrance Odean odean@berkeley.edu, March 26, 2014

Dear Jonathan,

This is fourth or fifth time that I've independently worked on a project similar to one that other authors were working on. The degree of overlap varied of course as did the resolution. Probably the best outcome from my perspective was when Brad, Ning Zhu, and I found out that Soren Hvidkjaer had written a paper very similar to our paper "Do retail trades move markets?" Soren and we discussed various options and decided to make a coordinated submission to the RFS. Both papers were published in the RFS.

Your email suggests that you are concerned that we got the idea for our paper from you. We didn't. We've been working on this project since March of 2012. Brad and I may have discussed the idea before then, but
that's when we first laid out a research plan with Xing. After our initial analysis of fund flows and factor returns, we decided that we needed to control for Morningstar categories (which investors might use as proxies for risk). I wrote to John Rekenthaler at Morningstar requesting data for this project in June of 2012. I'll append that email.

Neither Brad or I remember you telling us about your paper with Jules at the conference at Davis last summer. If you did mention the paper you did not do so in such as way as that we realized you were working on something very similar to our project. Same goes for the gym. It's possible you mentioned you were working on another paper with Jules. I have no recollection of you talking about risk-factors and fund flows.

The first I learned about your project was last fall when I received an email from our co-author Xing Huang. I'll also append that email. I spoke with Xing a few days later. She said that she mentioned our project to Jules. Jules responded that he was working on something very similar with you. She said that the conversation grew awkward and they then talked about something else. She thought that Jules might send her your draft in which case she would have sent ours. But she didn't hear again from him.

Brad and I talked about what to do. We were in the middle of making changes and adding new analyses. We decided not to read your paper so as not to be influenced by whatever methodological choices you made. We assumed that Jules had mentioned our paper to you. So far, none of the three of us has read your paper. I intend to do so in the next few days and, of course, we will cite you.

I'll attach our current draft. It does not yet include results with Sharpe ratios that we have completed, nor analyses of Morningstar ratings, volatility, and share classes that we are working on.

Jonathan, the sensible thing to do is for us to talk. Tomorrow and Friday are difficult for me. Martha is having diagnostic surgery tomorrow (■■■). She'll be at Alta Bates for 5 to 6 hours and I'll be with her. Friday we are burying our friend Jake Hesse. He died in Big Sur Sunday night. We knew he was dying and Martha was sitting next to him when he did. Jake was the first friend I made when I came to California a long time ago.

I could talk Saturday or Monday. Tuesday I'm flying to Boston. I'd also be happy to drive down to Stanford the week of April 7th to have lunch with you and Jules.

Terry

From: Brad Barber bmbarber@ucdavis.edu, March 26, 2014

Jonathan,

Terry's email summarizes my recollection of events. I don't recall discussing your work at the Davis conference, as I would have certainly mentioned that Terry and I were working on a similar project. I hold myself to very high standards on issues like this, so am sorry to hear that you believe we cultivated the idea for our work from discussions with you. It's been my experience that having open communications with those working on a competing paper leads to the best outcome for everyone involved, so hopefully you and Terry will have a chance to chat soon. You're also welcome to give me a call if you'd like to discuss this more.

Best,

Brad

From: Jonathan Berk jbberk@stanford.edu, March 30, 2014

Guys ---

I am in South Africa, I get back on April 10. But I am not sure what talking would accomplish anyway.
Let me start with an observation. I have never had this happen in the 24 years I have been an academic. That fact that it has happened to you repeatedly should make you both pause. Perhaps what you believe were independent ideas were actually ideas you heard somebody else say and subsequently forgot about?

In any event, it think it is unproductive to debate the above issue. Instead we should just stick to the verifiable facts. Our paper preceded yours. The norms of our profession require that when you write a paper you search the existing literature and reference existing work that is related to what you are working on. Therefore what Jules and I request is that you follow those norms, and cite our paper appropriately. By this I mean you clearly acknowledge that facts, that is, that our paper preceded yours, what our paper does and how what you do relates to our results. We can all move forward once you adhere to the norms of the profession.

--- Jonathan

From: Terrance Odean odean@berkeley.edu, April 6, 2014

Jonathan,

We've been friends for a long time. I’m surprised that you would suggest that I’ve been getting ideas for papers from others. It would be more generous to point out that I share my ideas widely and freely—as I do my data—and others may have been taking advantage of me. However, in the specific cases in which I and others have written about similar topics, we’ve both done so independently.

I encountered a ‘competing’ paper when I wrote the very first chapter of my dissertation. My paper was a theoretical study of the effects of overconfidence in financial markets. I got the idea from extensive reading of the overconfidence literature in psychology; reading I did while in undergraduate and graduate courses taught by Danny Kahneman. While I was writing my paper, Pete Kyle was also writing a paper on the topic. The papers are substantially different and both were published, but the nominal overlap was enough to cause me initial problems. I didn’t get my idea from Pete. I don’t know what inspired Pete, but he didn’t get his idea from me.

As I mentioned in my previous email, there have been two situations in which Brad and I have written papers that substantially overlapped with papers written independently by other authors. The other authors didn’t accuse us of stealing their ideas, nor did we accuse them of stealing ours. We all simply accepted that we’d been working independently on similar projects. As I mentioned, one time we successfully coordinated our submissions to the RFS. The other time, we combined our papers, published a joint paper, and went on to publish other work together. In both cases we all remain friends.

You write that you want to stick to verifiable facts. We can verify that we’ve been working on this project for over two years—at least 15 months before that conference at Davis at which you thought you mentioned your project to us. Individual investor behavior and mutual fund flows are topics that have interested Brad and me for over a decade and about which we’ve previously written. And, of course, we did a literature search before we started work on our paper. However, at the time you had not started writing your paper, so it did not turn up in our search. We learned about your paper on the same day last September that Jules learned about ours. Xing mentioned to him what we were doing, he replied that you and he were working on something similar. At the time, we been working on the paper for over a year and a half and had all of our main results and a draft.

In hindsight, I believe that Brad, Xing and I, and Jules and you both erred by not talking to each other last September. We should have called you or you should have called us. It would have been better practice to talk sooner rather than later.

The norm in the profession is to cite independently written papers on the same topic as independently written. We will of course do so.

Again, Jonathan, you and I have been friends for a long time. I’d much rather talk with you in person than exchange emails. While in some ways the idea for both of our paper was rather obvious, it is nonetheless
disappointing to put months or years of work into something and find out that others have been doing the same. I’ve found in the past that emails tend to be a poor form of communication when topics evoke emotions. I would have driven to Stanford rather than write this email if you weren’t in South Africa at the moment. I’d like to meet with you and Jules when you return.

Terry

From: Jonathan Berk jbberk@stanford.edu, April 10, 2014

Terry ---

Yes, I too was under the impression that we were friends, so I was utterly shocked to see your paper when Jules brought it to my attention. I know for a fact that I discussed this with you when we were working out at the Claremont, as I pointed out in the last email. (Since we stopped working out in the summer of 2012, that means you knew about this idea, and that I was working on it, 2 years ago.) When Jules told me last September that you were working on the same idea I dismissed it because it seemed inconceivable to me that you would work on this idea without calling me to tell me you were doing this. After all, I not only told you at the Claremont what the compensation sorts meant in our paper on managerial skill (see below), I also told you that we had run the preliminary flows on the FFC factors and verified that the composition sorts implied what I said they implied. That you would then work on this idea without talking to me seemed inconceivable. So, in some sense, you are right in saying that I erred last September. My error was to think of you as a friend that would not betray my confidence in this way.

We started working on this paper much longer than 2 years ago because one of the main results follows immediately from our earlier paper on managerial skill (another existing paper that is clearly related to your paper that you dont cite). When you sort by managerial compensation, net alpha is unpredictable using the Vanguard benchmark but is predictable using FFC factor specification. Since compensation is determined by AUM, this meant that flows were not flowing to positive alpha investment opportunities under the FFC factors but were under the Vanguard benchmark. When we uncovered this fact, we immediately ran the flows regression and verified the FFC results that later on became a central point in our paper on revealed preference. I dont know the exact date when we first ran the compensation regressions in the managerial skill paper, but looking at the date on the file that contains the initial code, that would be no later than February 2012. I was pretty excited about these results at the time, and discussed them with you when we first discovered them.

That said, the history here is really besides the point. It is my fault for taking you into my confidence (and thereby letting my co-author Jules down). I fully recognize that simply discussing an idea does not mean that I own the idea. That only occurs once the research is distributed in written form. Xing learned about the existence of our paper because Jules mentioned it when he PRESENTED our managerial skill paper. When he put up the compensation sorts results, he then informed the audience of the results in our then new paper which we posted on SSRN within weeks of that presentation. That even though you knew the written paper existed, you then purposely ignored the paper (as you readily admit) and then posted your paper without referencing our EXISTING work is not only baffling to me, more importantly, it is a violation of the norms of the profession. The way the norms of our profession work is that existing work, EVEN IF your work is independently executed (which you are free to claim), must be cited at preceding work. The reason that norm exits is that nobody can verify what is independent and what is not. As a behavioral economists you know only too well that people's memories pay tricks on them.

I am on the plane on the way home. Jules will be in town next week (he has moved to NYC). I agree that we should try to work this out, and at least try to patch together something of what was once a good friendship. So if you want to come to Stanford and try to work this out, Monday or Tuesday of next week would work for us.

--- Jonathan
Jonathan,

I read your paper last night. Have you read ours? (Not just the abstract.) Fortunately, our papers are quite different. Our papers have different motivations, different methodologies, different interpretations of the common finding, and different approaches to exploring alternative explanations for that finding. Of the 14 papers you cite and the 29 we cite, there is an overlap of only 3 papers (including Berk and Green). There is room in the literature for both of our papers.

When Brad and I heard from Xing that you and Jules were also working on a paper that examines mutual fund flows to see what risk model investors use, the three of us had a conversation about how to proceed. We discussed the option of quickly posting our paper to SSRN. We decided not to do so because we wanted to post a more complete paper with robustness checks and tests of alternative hypotheses that we had begun but not fully completed. We also decided to read your paper after we completed the work we were doing so as to avoid being influenced by your methods and interpretations. I think that was a good choice—though not necessarily the only good choice. However, our decision to cite you in a subsequent draft rather than in the first draft was a mistake. We should have exchanged papers with you in late September and read and cited your paper before we posted ours.

You posted a draft 18 days after Jules and Xing talked (before, not after, his seminar) and your paper is in many ways preliminary. I don't think that it is wrong to post an early draft, but it does not change when we learned about each other's papers.

Both you and we posted our papers after we learned that the other authors had a paper with a similar finding. Neither of us cited each other. We both erred.

I was also excited in spring of 2012 about our finding that investors appeared to be sensitive to market risk but much less so to size, value, and momentum risks. I may have told you about this, but I have no recollection of doing so nor any recollection of you telling me about your related finding. I believe that if either of us had mentioned our results to the other in a way that made the overlap obvious we would have had an open discussion about our related projects.

Brad, Xing, and I didn't get the idea for our paper from you. Not at the conference in Davis last summer. Not in the gym in the summer of 2012. Not earlier. We had all of our main findings by early summer of 2012. We could have circulated a paper with those results then. We didn't do so because to us it is puzzling to us that many investors behave as if they are following the CAPM. We've spent the last year and a half trying to understand that puzzle. (Progress was slow for part of last year because Xing was on the job market.) To suggest that I stole your idea is to insult both my integrity—for taking your idea—and my intelligence—for then not rushing a paper to market.

You write that your paper grew out of your work on managerial compensation. Our paper doesn't even mention managerial compensation. We were motivated by the observation that if investors hold heterogeneous portfolios and factor premiums are compensation for risk, then one group of investors must be insuring another group of investors for that risk. Usually, when such insurance takes place, both parties are aware of the arrangement. Yet, there is little anecdotal evidence that individual investors care about many of the factors that financial economists have identified as potentially having risk related returns. For example, I've never met an investor who said that he didn't want to own a stock that had outperformed the previous year because good past performance is risky. We reasoned that if investors—particularly individual investors—cared about these risks, their concerns should be reflected in mutual fund flows.

We will be happy to also cite your paper on managerial skill. And you might consider citing Brad's and my paper with Lu Zheng (JB, 2005) on sensitivity of flows to fees (since you have a section on fee changes), but if you think that the connection is only tangential, no worries.

Brad and I will come to Stanford on Monday to talk with you and Jules. Shall we meet for lunch? 12:30?

Terry
From: Jonathan Berk   jbberk@stanford.edu ,  April 13, 2014

Brad and Terry ---
Jules and I will be working from my apartment tomorrow so that you don't have to drive all the way to Stanford. The address is ■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■. See you at 12.

From: Terrance Odean   odean@berkeley.edu  , April 13, 2014

Thanks. Saves me a long drive. See you tomorrow at 12.

From: Terrance Odean   odean@berkeley.edu, April 14, 2014

Jonathan and Jules,

Thanks for meeting with Brad and me today.

Jules, I apologize again for my burst of anger. Jonathan and I have been friends for many years and our dialogue of the last couple of weeks has been emotionally difficult for me. That is not your fault and I should not have gotten angry at you.

After the two of you have had a chance to talk, I suggest that you outline your ideas in broad terms but that Jonathan and I meet in person to work out an agreement as to how to proceed. We can put whatever we agree upon into writing, but I'd rather talk in person than try to negotiate something by email. I'll be happy to meet again in the city.

Terry

From: Jonathan Berk   jbberk@stanford.edu, April 15, 2014

Terry ---

Thanks for coming to my house. I would be happy to meet with you in the future, but as Brad pointed out, to begin to rebuild it is very important that we first get the contracting done. Jules and I will send you a message in a few minutes with the wording of this contracting.

Best,
--- Jonathan

From: Jonathan Berk   jbberk@stanford.edu, April 15, 2014

Terry and Brad ---

Thanks for coming to my apartment. Jules and I would like to follow up on our conversation and get the contracting we talked about behind us as soon as possible. As we understand it there are two issues that we have preliminary agreement on.

1) We have agreed that we each cite each other's work. You agreed to cite our work making it clear that we circulated our work 5 months before you.
2) That we mutual agree to co-ordinate our submission strategy. As part of that, what Jules and I propose is that we give each other until Thanksgiving to present and revise our work, and that after that we would hope that enough mutual trust has been rebuilt so we then meet and mutually agree on what submission strategy to follow. That is, we all agree not to submit either work for publication until thanksgiving so
that we can all present our work at various seminars and conferences.
As Brad emphasized yesterday, in this situation where trust needs to be rebuilt from scratch, we think this agreement needs to be as explicit as possible. So I think we need to agree on the exact wording of the citations. With that in mind, can you please send us what you will write in your paper. We will then do the same.

--- Jonathan

**From: Terrance Odean odean@berkeley.edu, April 16, 2014**

Jonathan,

I hope that we can work out an understanding on how to proceed. I would like to mend our friendship and see both papers published in good outlets. I wrote a detailed response to your email which I shared with Brad. He pointed out that emails tend to exacerbate differences and that we are likely to make more progress and find more common ground if we meet in person. We can then write down any agreement we reach so as to avoid future misunderstanding. Can you meet this Friday or Saturday afternoon?

Terry

**From: Jonathan Berk jbberk@stanford.edu, April 16, 2014**

Terry and Brad ---

Please make sure to include Jules on all correspondence.

I am not sure what meeting in person will achieve at this point given that we have already met in person and as far as Jules and I are concerned, at that meeting, we worked out our next step. As Brad pointed out, we need to rebuild trust from scratch. Brad suggested we turn to contracting to do that. Please let us know if you don't agree with this assessment.

Assuming you do, before we do anything else, we need that contract completely spelled out. The first step is for the three of you to commit in writing to cite us as you said you would. You agreed in the meeting to cite our work making it clear that we circulated our work 5 months prior to you. Both of you agreed to this, and I recall Terry specifically saying that he had no problem pointing out in the paper what was true. Until you do that, there is nothing to talk about.

--- Jonathan

**From: Terrance Odean <odean@berkeley.edu>, April 18, 2014**

Jonathan,

You wrote on Tuesday that you “think we need to agree on the exact wording of the citations.” I would rather have worked out that wording in person than by email because emails tend to exacerbate differences not areas of agreement. But since you don’t want to meet now and would like us to propose language here is our proposal:

We write:

In independent work (i), Berk and Binsbergen, …

Footnote i. Berk and Binsbergen and the authors of this paper became aware of each other’s independent work in September 2013 after writing preliminary papers. Berk & Binsbergen posted their paper to SSRN in October 2013.
You write:

In independent work (i), Barber, Huang, and Odean, …

Footnote i, Barber, Huang, & Odean and the authors of this paper became aware of each other’s independent work in September 2013 after writing preliminary papers. We posted our paper to SSRN in October 2013.

We both agree not to trash each other’s papers in writing or otherwise. We will emphasize the complementary differences in motivation and methods in our papers and how that leads to a more interesting and robust overall finding.

To be clear, I did not say that I would cite your paper as having been circulated five months before ours. I said that I would cite it as posted to SSRN in October 2013. If I write that you circulated your paper months before we did, then I also need to explain why. The explanation is simple enough: you and Jules chose to post a preliminary paper shortly after you learned that we had similar results; Brad, Xing, and I chose to continue working on our agenda of robustness checks and tests of possible explanations for the main results before posting. I feel that this is more information than is appropriate to put in a paper. The relevant information is that the studies were independently conceived and executed.

Also, we submitted our paper to conferences and solicited comments well before we posted it to SSRN (and even presented it before posting). And we had a rough draft of our paper with most of the current tables in August of 2013. I mention this only because Jules asked.

Coordinating submissions is a possibility that could lead to good outcomes, but it isn’t something we’ve as yet agreed to do. The point of a coordinated submission is to inform the editor that the two sets of authors independently wrote papers with similar important findings. Before you and Jules and Brad, Xing, and I can discuss how to coordinate submissions, we need to agree that our papers are independent work and we need to mutually agree on the language we both use when citing and discussing each other’s papers.

Terry

From: Jonathan Berk jjberk@stanford.edu , April 20, 2014

Terry, Brad and Xing ---

We were very disappointed to read your email in that it continues a pattern of what we experience as dishonest behavior. We all know exactly what you agreed to do when we met --- to cite our paper as preceding yours by 5 months. Given that you have chosen to renege on your word, we feel that there is no scope whatsoever to rebuild any trust, let alone friendship, between us.

We will cite your paper in the next version of our paper making the timing clear. We will also post the accompanying note on the internet for readers who might be interested in the timing details.

Finally, you have admitted to committing three ethical violations:
1) Failure to cite work directly related to yours that you knew existed.
2) Intentionally not reading an existing paper that you knew had derived some of your results.
3) Writing a statement in your paper that you knew at the time was untrue.

The correct attribution of ideas lies at the core of our profession, and all three violations strike at the heart of your obligation to correctly attribute ideas. Because of the seriousness of these violations, we are considering bringing this to the attention of your respective deans.

--- Jonathan and Jules

[NOTE: Berk, van Binsbergen, Barber, and Odean met on April 14, 2014. We agreed that we would work on language to cite each other, put that language in writing, and adhere to our written agreement. We also discussed coordinating submissions.

During the conversation, we (Barber and Odean) said that we would write in our paper that Berk and van Binsbergen’s paper was first posted in October 2013.
Berk and van Binsbergen’s memory is that we said we would write in our paper that their paper was circulated five months before ours. This is the issue on which Berk feels we “reneged.” While we believe our memories on this point are correct and theirs mistaken, we realize it could be the other way around. We did not intentionally renege on any agreement and were disappointed that Berk and van Binsbergen were no longer willing to meet and discuss how both sets of authors would cite each other. We believe that had we met again in person to discuss citations this entire controversy would have been avoided. Citation language seemed too small an issue to warrant extensive argument, so we noted both posting dates in our paper and later adopted exactly the language Berk and van Binsbergen requested.

From: Terrance Odean odean@berkeley.edu, April 24, 2014

Dear Jonathan and Jules,

I'm very sorry that things have come to the point that you consider our friendship over. Brad and I would have liked to work out mutually acceptable language for citations with you in person. As I've written previously, we feel that resolving differences by email is often ineffective and can even exacerbate conflicts. However, you declined my invitation to work on this in person and, indeed, our differences appear to have grown rather than diminished.

Brad and I have decided to pick an option that we think preserves our integrity and is fair to you. We have cited your paper in a way that we believe accurately portrays the temporal and substantive relationship between our papers. As you will see in the attached paper, we are clear about the dates when each paper was posted to SSRN.

I hope you find this to be a satisfactory resolution.

Terry

From: Jonathan Berk jbberk@stanford.edu, April 25, 2014

Brad, Terry and Xing ---

Although the current citation is an improvement, it still implicitly leaves the impression that the following facts are true, when in fact they are not true:

1) You presented/submitted your paper at conferences before us. Even if you ignore the brown bag lunch Jonathan did at Stanford in the spring of 2012, our results were first presented at an outside conference in May 2013, that is, long before Jules spoke to Xing.
2) You imply you "discovered" your main result before us.
3) Our posted paper was more preliminary than yours, which it was not. Your implicit contention that we irresponsibly posted early just to get a jump on you while you continued work responsibly is not true. The fact is that we are close to posting a revision and it will not be substantively different to the version we posted 6 months ago. You seem to want to continue to maintain the contradictory position that your research was at the same stage as ours in September 2013 but you nevertheless chose not to read our paper at that point because you were worried that by doing so it would influence your methodological choices. If your paper was at the same stage as ours you would have had no more methodological decisions to make because it would have been done. By September 2013 we had already completed a very long series of robustness checks which partially explains why it took so long, from the time we had the idea, for us to get the first draft of the paper out.

Here is a version of your footnote that does not implicitly communicate these untruths:

In September 2013, Berk and van Binsbergen and we became aware that both sets of authors had independently derived similar findings. Berk and Binsbergen first posted their paper to SSRN in October 2013. We posted our paper to SSRN in March 2014.
We still dispute whether the work is independent, but since that fact is not verifiable, it is your decision whether or not to keep that wording in the footnote.

--- Jonathan and Jules

From: Terrance Odean odean@berkeley.edu, April 25, 2014

Dear Jonathan and Jules,

Rather than trying to resolve this by email, I would like to meet with Jonathan to converge on mutually acceptable language for citing each other. Others are welcome to attend if schedules allow. We can then share the written proposal with our coauthors for final approval.

Terry

From: Jonathan Berk jbberk@stanford.edu, April 25, 2014

Terry ---

Might I suggest you go back and read my emails. At this point I feel so betrayed by you that I view it as unlikely we will ever talk to each other again. We all met in person and agreed on a way forward to begin to rebuild trust and friendship. You then immediately reneged. So I see no point in meeting. Twice now I have trusted you and twice you have betrayed that trust. As the old saying goes, fool me once, shame on you, fool me twice, shame on me.

It is important that you understand that at this point we are not negotiating. You and your coauthors are deciding whether you want your paper to accurately reflect the verifiable facts. You have an ethical obligation to do at least that. Your choice right now is whether you want to live up to that ethical obligation or not. In an earlier email Brad informed us that he held himself "to very high standards on issues like this." Well, let's see.

Obviously there are a lot of facts that are not verifiable and over those Jules and I feel that there is not much to talk about.

--- Jonathan

From: Brad Barber bmbarber@ucdavis.edu, April 30, 2014

Jonathan and Jules,

Sorry for the delay in responding to your last email. We will respond shortly and hope that we can bring this to a quick resolution.

More soon,

Brad

From: Brad Barber bmbarber@ucdavis.edu, May 1, 2014

Jonathan and Jules,

I attempt to approach people who I encounter in my life with kindness and truth. This simple rule has served me well. Obviously, you feel wronged by the events and for that I am sincerely sorry. Many of your concerns are focused on the origin of our idea and whether it emanated from a gym discussion between Terry and Jonathan; Terry will send a separate email addressing this issue.

One point that I would like to clarify is that we were not aware of your posted SSRN paper until Jules sent us an email link on March 26, 2014. Our failure to cite you in the originally posted draft was an error of
omission, not commission. When we received the link to your paper, we choose to set it aside for a few weeks following the email from Jules (not five months) and after already having posted our paper. We’d appreciate you letting us know when you post new versions of your paper to SSRN. We will do the same.

We were always willing to work with you on language regarding citation, but in hindsight should have negotiated this language when we met or asked you to first suggest the citation language. While we prefer the language we first suggested, we will use your proposed language in the footnote. We hope by doing so we can begin to rebuild our relations:

“In September 2013, Berk and van Binsbergen and we became aware that both sets of authors had independently derived similar findings. Berk and Binsbergen first posted their paper to SSRN in October 2013. We posted our paper to SSRN in March 2014."

We hope that you will use similar reciprocal language:

“In September 2013, Berk and van Binsbergen and we became aware that both sets of authors had independently derived similar findings. We first posted our paper to SSRN in October 2013. Barber et al. posted their paper to SSRN in March 2014."

Jonathan, I apologize again for the stress we unintentionally caused you. I have always valued you as a friend and colleague, and I hope we can put this episode behind us.

Best,
Brad

From: Terrance Odean odean@berkeley.edu, May 1, 2014

Jonathan,

Brad, Xing, and I have decided to cite you and Jules exactly as you wish. Clearly the posting dates are important to you. We hope this gesture will help to rebuild our relations.

This has been a Kafkaesque experience. I did not steal your idea for a paper, and I’m not sure what idea you think I stole. You believe that in February 2012 you told me that you and Jules found that mutual fund manager net 4-factor alphas are persistent. From this result, you realized that that mutual fund investors don’t use the 4-factor model and that one can infer investor risk preferences from fund flows.

As you know, I have never believed that mutual fund investors use the 4-factor model to evaluate performance. For one thing, after you wrote Berk and Green, I suggested that you and I write a paper together testing whether mutual fund investors overreact to relative performance (measured by absolute return or, equivalently, market adjusted return) which was my belief at the time, or whether fund investors rationally respond to alpha as described in Berk and Green which was your belief at the time. For another, I have teaching notes going back 15 years in which I dispute that the 4 factor empirical results are evidence that size, book-to-market, and momentum capture risk.

What you must believe is that I stole your insight that one can infer investor risk preferences from fund flows. I didn’t. Even if you had told me that net 4-factor alphas were persistent, that observation would not have led me to the insight that one can infer investor attitudes towards risk from flows. But, more importantly, neither you and Jules nor Brad, Xing, and I are the first people to have this insight. There are prior papers that use fund flows to infer risk preferences. These papers vary in approach and methods—just as your paper and ours vary in approach and methods—but using mutual fund flows to infer investors’ attitudes towards risk is not novel when papers with titles such as “Do Investors Care about Risk? Evidence from Mutual Fund Flows” were posted to SSRN a year before you think we discussed the idea. Brad, Xing, and I were aware of this literature when we started working on our paper in March of 2012. You don’t currently cite any of these papers, so it is possible that you and Jules haven’t seen them. Thus you may think that you had a novel insight which we copied.

Most of the rest of our problems have stemmed from communication. You think that I should have mentioned to you in spring or early summer of 2012 that I was once again working on a project on investor
behavior and fund flows. But 1) I didn’t perceive an overlap in our research interests. I thought that you and Jules were focusing on managerial compensation and skill. I didn’t realize you were now interested in investor behavior. 2) We only met at the gym once a month in 2012 and stopped meeting after July. Furthermore my neighbor Matt often worked out with us. 3) Even back when the two of us used to work out alone together, we rarely, if ever, talked about my ongoing research.

You wrote that you told me about your persistent net alpha finding in February 2012, just before Brad, Xing and I started working on our paper in March. You originally accused both Brad and me of stealing your idea after you discussed it with us at the conference in Davis in June 2013. Later you admitted that your memory of that discussion was mistaken; we appreciate your honesty on this point. Only after we replied that we started working on our paper in March of 2012, did you become confident that you told me about your persistent net alpha finding in February 2012. Though you do not explicitly remember this conversation, you are sure that it must have happened because you are certain we got the idea from you to use fund flows to infer investor attitudes towards risk. However, we didn’t get this idea from you; furthermore, other researchers had already had this insight.

The paper Brad, Xing, and I have written is entirely in keeping with Brad’s, Xing’s, and my previously research on investor behavior and with Brad’s and my previous research on mutual fund flows.

Your paper and ours are quite different. The single finding we have in common—that investors behave as if they care about beta—we arrive at very differently, and this particular finding is not something that you have suggested that you mentioned to me.

Stealing a colleague’s idea is a big deal; falsely accusing a colleague of stealing your idea is also a big deal. Not citing someone in the first posted draft of a paper is an error, but a common and fixable error.

I’d sincerely like to salvage our friendship. If you are willing, let’s meet and talk.

Terry

From: Brad Barber bmbarber@ucdavis.edu, May 17, 2014

Jonathan,

I wanted to briefly follow up on my last correspondence, particularly since I have learned that you sent letters to each of our deans about these issues. Terry, Xing, and I had decided to cite you as you requested prior to learning about the letters that you had sent. I think the timing of our intentions is important because you might erroneously believe that our conciliatory gesture was a response to you sending these letters; it was not.

Again, I am truly sorry that you feel wronged by these events and was hoping that our gesture would help to rebuild relations.

Brad