



Jesse Shapiro <jesse.m.shapiro@gmail.com>

bootstrap question for Braguinsky, Ohyama, Okazaki, and Syverson (2021)

8 messages

Jesse Shapiro <jesse.m.shapiro@gmail.com>

Wed, Jul 19, 2023 at 9:21 AM

To: sbraguinsky@rhsmith.umd.edu, ohyama@iir.hit-u.ac.jp, okazaki@e.u-tokyo.ac.jp, "Syverson, Chad" <chad.syverson@chicagobooth.edu>, Isaiah Smith Andrews <iandrews@mit.edu>

Serguey, Atsushi, Tetsuji, and Chad,

I hope this finds you well.

@Isaiah Smith Andrews and I are doing some research on the bootstrap.

The standard errors in [Table 5, column \(4\)](#) of your [2021 AER paper](#) come from a bootstrap implemented in line 644 of the file `main_text_replication_code.do`. That line, in turn, calls the ADO file `boos2_2sls_2.ado`.

Is it possible that the intention was to replace `firmID` with `newid` [here](#)? From parsing the [syntax](#) and experimenting with the code, I think that, currently, if a given firm is sampled multiple times in a given bootstrap replicate, the cumulative sum is taken across all "copies" of that firm that appear in that replicate.

Thanks,
Jesse

Serguey Braguinsky <sbrag@umd.edu>

Wed, Jul 19, 2023 at 11:54 PM

To: Jesse Shapiro <jesse.m.shapiro@gmail.com>

Cc: Serguey Braguinsky <sbraguinsky@rhsmith.umd.edu>, Atsushi OHYAMA <ohyama@iir.hit-u.ac.jp>, Tetsuji Okazaki <okazaki@e.u-tokyo.ac.jp>, Chad Syverson <chad.syverson@chicagobooth.edu>, Isaiah Smith Andrews <iandrews@mit.edu>

Dear Jesse

Many thanks for your message and for your interest in our work! Atsushi is saying that we did initially do the bootstrap the way you suggested (and the results were quite similar) but a referee said he/she was not sure it was the right way and asked us to do block bootstrap (with block defined as a firm), so we switched to the current version of the code. Just in case, I have re-run the sequence once again replacing `firmID` with `newid` in the `boos_2sls_2.ado` file (and also `boos_2sls_1.ado` file) and re-confirmed that while the standard errors are slightly higher in that case, qualitatively the results are still quite similar.

We want Chad to consider this too but he is currently unavailable. Once he becomes available, the four of us will confer and get back to you with more.

Thanks once again for the feedback!

Best regards,
Serguey

[Quoted text hidden]

Jesse Shapiro <jesse.m.shapiro@gmail.com>

Thu, Jul 20, 2023 at 7:46 AM

To: Serguey Braguinsky <sbrag@umd.edu>

Cc: Serguey Braguinsky <sbraguinsky@rhsmith.umd.edu>, Atsushi OHYAMA <ohyama@iir.hit-u.ac.jp>, Tetsuji Okazaki <okazaki@e.u-tokyo.ac.jp>, Chad Syverson <chad.syverson@chicagobooth.edu>, Isaiah Smith Andrews <iandrews@mit.edu>

Serguey,

Thanks very much! Very happy to discuss more once you've had a chance to discuss as a group.

Please keep me posted.

Best,
Jesse

[Quoted text hidden]

Syverson, Chad <Chad.Syverson@chicagobooth.edu>
To: Jesse Shapiro <jesse.m.shapiro@gmail.com>

Thu, Jul 27, 2023 at 2:06 PM

Hi Jesse,

Hope you, Emily, and the kids are doing well.

Thanks for flagging this for us. I'm back now and we're working on it. Preliminary look makes me think you're right, but we should have a full response to you soon, probably next week as several of us are traveling this weekend.

C

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CAUTION: This email has originated outside of University email systems. Please do not click links or open attachments unless you recognize the sender and trust the contents as safe.

Jesse Shapiro <jesse.m.shapiro@gmail.com>
To: "Syverson, Chad" <Chad.Syverson@chicagobooth.edu>

Thu, Jul 27, 2023 at 5:25 PM

Chad,

Thanks!

On the family, we are good, hope the same for you.

On the bootstraps, sounds good, and we are standing by.

Best,
Jesse

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Serguey Braguinsky <sbrag@umd.edu>
To: Jesse Shapiro <jesse.m.shapiro@gmail.com>
Cc: Serguey Braguinsky <sbraguinsky@rhsmith.umd.edu>, Atsushi OHYAMA <ohyama@iir.hit-u.ac.jp>, Tetsuji Okazaki <okazaki@e.u-tokyo.ac.jp>, Chad Syverson <chad.syverson@chicagobooth.edu>, Isaiah Smith Andrews <iandrews@mit.edu>

Mon, Aug 7, 2023 at 9:11 PM

Dear Jesse

Thanks once again and sorry for the delay in our response. We dug into this as a group and our conclusion is that you are absolutely right. Please see our detailed response in the attached Word file. We also experimented a bit with the Stata algorithm to make sure we really understand what is going on inside its blocked bootstrap. The findings from that inquiry (from which we ourselves learned a lot, although it may be nothing new to you) are in the attached html file. The latter is quite long, so free disposal applies, of course!

Kind regards,
Serguey on behalf of the coauthor team

On Jul 20, 2023, at 8:46 PM, Jesse Shapiro <jesse.m.shapiro@gmail.com> wrote:

Serguey,

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Please keep me posted.

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Best regards,
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Thanks,
Jesse

2 attachments



Answer to Jesse_CS.docx
24K



bootstrap_check_3.html
819K

Serguey Braguinsky <sbrag@umd.edu>

Mon, Aug 7, 2023 at 9:17 PM

To: Jesse Shapiro <jesse.m.shapiro@gmail.com>

Cc: Serguey Braguinsky <sbraguinsky@rhsmith.umd.edu>, Atsushi OHYAMA <ohyama@iir.hit-u.ac.jp>, Tetsuji Okazaki <okazaki@e.u-tokyo.ac.jp>, Chad Syverson <chad.syverson@chicagobooth.edu>, Isaiah Smith Andrews <iandrews@mit.edu>

P.S. The second attachment (the html file) may not open if you just click on it as an email attachment (at least it doesn't on my computer). But you should be able to open it if you first download it to your computer locally. Please let me know if it doesn't work for you.

[Quoted text hidden]

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Jesse

2 attachments



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bootstrap_check_3.html
819K

Jesse Shapiro <jesse.m.shapiro@gmail.com>

Tue, Aug 8, 2023 at 7:59 AM

To: Serguey Braguinsky <sbrag@umd.edu>

Cc: Serguey Braguinsky <sbraguinsky@rhsmith.umd.edu>, Atsushi OHYAMA <ohyama@iir.hit-u.ac.jp>, Tetsuji Okazaki <okazaki@e.u-tokyo.ac.jp>, Chad Syverson <chad.syverson@chicagobooth.edu>, Isaiah Smith Andrews <iandrews@mit.edu>

Serguey and everyone,

Thank you very much for the care you have taken with this and for this reply. We appreciate it and will make the same correction on our side to align with your corrected files.

Best,
Jesse

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