AllianceBernstein L.P. Attestation in Connection with Executive Order 13959

In connection with the Executive Order 13959 Addressing the Threat from Securities Investments that Finance Communist Chinese Military Companies issued on November 12, 2020 (the "Executive Order"), AllianceBernstein L.P. ("AB") hereby certifies that:

1. As of date hereof, no commingled investment funds (e.g., exchanged-traded funds, mutual funds, money market funds, closed-end funds) which it sponsors, advises, or manages, that are available for purchase by U.S. persons, owns or otherwise holds an interest in, any security the purchase for value of which after January 11, 2021 would be prohibited by the terms of the Executive Order (a "Prohibited Security");

2. AB will not cause or permit such commingled investment funds to purchase a Prohibited Security at any time during which the Executive Order or other similar order or sanction is in effect;

3. AB understands and acknowledges that third parties are relying on this Attestation in support of its own compliance with the terms of the Executive Order; and

4. AB will notify third parties immediately, but in no event later than one (1) business day, after determining that any portion of this Attestation is no longer true and correct.