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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**POST-EFFECTIVE  
AMENDMENT NO. 1**  
to  
**FORM S-4**  
**REGISTRATION STATEMENT**  
*UNDER*  
*THE SECURITIES ACT OF 1933*

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**ADVANCED MICRO DEVICES, INC.**

(Exact Name of Registrant as Specified in Its Charter)

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**Delaware**  
(State of Incorporation)

**3674**  
(Primary Standard Industrial  
Classification Code Number)

**94-1692300**  
(IRS Employer  
Identification No.)

**2485 Augustine Drive**  
**Santa Clara, California 95054**  
**(408) 749-4000**

(Address, including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

**Harry A. Wolin**  
**Senior Vice President, General Counsel and Corporate Secretary**  
**Advanced Micro Devices, Inc.**  
**2485 Augustine Drive**  
**Santa Clara, California 95054**  
**(408) 749-4000**

(Name, Address, including Zip Code, and Telephone Number, including Area Code, of Agent for Service)

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*Copies to:*

**Tad J. Freese**  
**Jonathan P. Solomon**  
**Latham & Watkins LLP**  
**140 Scott Drive**  
**Menlo Park, California 94025**  
**(650) 328-4600**

**Catia Hagopian**  
**Senior Vice President, General Counsel and**  
**Secretary**  
**Xilinx, Inc.**  
**2100 Logic Drive**  
**San Jose, California 95124**  
**(408) 559-7778**

**Kenton J. King**  
**Sonia K. Nijjar**  
**Skadden, Arps, Slate, Meagher & Flom LLP**  
**525 University Avenue, Suite 1400**  
**Palo Alto, California 94301**  
**(650) 470-4500**

**Approximate date of commencement of proposed sale of the securities to the public:** As soon as practicable after this Registration Statement becomes effective and the conditions contemplated by the Agreement and Plan of Merger described herein have been satisfied or waived.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering:

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering:  **Registration No. 333-251119**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer)

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

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**This registration statement will become effective automatically upon filing with the Securities and Exchange Commission pursuant to Rule 462(d) under the Securities Act of 1933, as amended.**

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#### EXPLANATORY NOTE

This Post-Effective Amendment No. 1 to the Registration Statement on Form S-4 (Registration No. 333-251119), filed on December 4, 2020 and amended by pre-effective Amendment No. 1 thereto on January 14, 2021, by pre-effective Amendment No. 2 thereto on February 5, 2021 and by pre-effective Amendment No. 3 thereto on February 25, 2021 (this "Registration Statement") is being filed pursuant to Rule 462(d) of the Securities Act of 1933, as amended, solely to add Exhibit 23.6 hereto to the Registration Statement.

**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 21. Exhibits and Financial Statements Schedules.**

(a) Exhibits.

Exhibit Number	Description
2.1*†	<a href="#">Agreement and Plan of Merger, dated October 26, 2020, among Advanced Micro Devices, Inc., Thrones Merger Sub, Inc. and Xilinx, Inc., (included as Annex A to the joint proxy statement/prospectus, which forms a part of this registration statement)</a>
3.1*	<a href="#">Amended and Restated Certificate of Incorporation of Advanced Micro Devices, Inc. (incorporated by reference to Exhibit 3.1 to the Advanced Micro Devices, Inc.'s Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2018)</a>
3.2*	<a href="#">Amended and Restated Bylaws of Advanced Micro Devices, Inc. (incorporated by reference to Exhibit 3.1 to Advanced Micro Devices, Inc.'s Current Report on Form 8-K filed on October 27, 2020)</a>
5.1*	<a href="#">Opinion of Latham &amp; Watkins LLP</a>
8.1*	<a href="#">Opinion of Latham &amp; Watkins LLP regarding certain tax matters</a>
8.2*	<a href="#">Opinion of Skadden, Arps, Slate, Meagher &amp; Flom LLP regarding certain tax matters</a>
23.1*	<a href="#">Consent of Ernst &amp; Young LLP, independent registered public accounting firm of Advanced Micro Devices, Inc.</a>
23.2*	<a href="#">Consent of Ernst &amp; Young LLP, independent registered public accounting firm of Xilinx, Inc.</a>
23.3*	<a href="#">Consent of Latham &amp; Watkins LLP (included in Exhibit 5.1)</a>
23.4*	<a href="#">Consent of Latham &amp; Watkins LLP (included in Exhibit 8.1)</a>
23.5*	<a href="#">Consent of Skadden, Arps, Slate, Meagher &amp; Flom LLP (included in exhibit 8.2)</a>
23.6	<a href="#">Consent of Ernst &amp; Young LLP, independent registered public accounting firm of Xilinx, Inc.</a>
24.1*	<a href="#">Power of Attorney</a>
99.1*	<a href="#">Consent of DBO Partners LLC</a>
99.2*	<a href="#">Consent of Credit Suisse Securities (USA) LLC</a>
99.3*	<a href="#">Consent of Morgan Stanley &amp; Co. LLC</a>
99.4*	<a href="#">Consent of BofA Securities, Inc.</a>
99.5*	<a href="#">Form of Proxy Card for Special Meeting of Advanced Micro Devices, Inc.</a>
99.6*	<a href="#">Form of Proxy Card for Special Meeting of Xilinx, Inc.</a>

\* Previously filed

† Schedules have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The undersigned registrant hereby undertakes to provide a copy of any of the omitted schedules upon request by the U.S. Securities and Exchange Commission.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Post-Effective Amendment No. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in City of Santa Clara, in the State of California, on February 3, 2022.

### Advanced Micro Devices, Inc.

By: /s/ Dr. Lisa T. Su  
Name: Dr. Lisa T. Su  
Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Dr. Lisa T. Su</u> Dr. Lisa T. Su	President, Chief Executive Officer and Director (Principal Executive Officer)	February 3, 2022
<u>/s/ Devinder Kumar</u> Devinder Kumar	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer)	February 3, 2022
<u>/s/ Darla Smith</u> Darla Smith	Corporate Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 3, 2022
<u>*</u> John E. Caldwell	Director and Chairman of the Board	February 3, 2022
<u>*</u> Nora M. Denzel	Director	February 3, 2022
<u>*</u> Mark Durcan	Director	February 3, 2022
<u>*</u> Mike P. Gregoire	Director	February 3, 2022
<u>*</u> Joseph A. Householder	Director	February 3, 2022
<u>*</u> John W. Marren	Director	February 3, 2022

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\*

Abhi Y. Talwalkar

Director

February 3, 2022

\* Dr. Lisa T. Su, by signing her name hereto, signs this registration statement on behalf of the directors of the registrant above in front of whose name an asterisk appears pursuant to powers of attorney duly executed by such directors and filed with the SEC.

By: /s/ Dr. Lisa T. Su  
Attorney-in-Fact

**Consent of Independent Registered Public Accounting Firm**

We consent to the reference to our firm under the caption “Experts” in Post-Effective Amendment No. 1 to the Registration Statement (Form S-4 No. 333-251119) of Advanced Micro Devices, Inc. and related Prospectus for the merger proposal of Advanced Micro Devices, Inc. and Xilinx, Inc. and to the incorporation by reference therein of our reports dated May 14, 2021, with respect to the consolidated financial statements and schedule of Xilinx, Inc., and the effectiveness of internal control over financial reporting of Xilinx, Inc., included in its Annual Report (Form 10-K) for the year ended April 3, 2021, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Jose, California

February 3, 2022