**Forward-Looking Statements**

This presentation contains forward-looking statements including, but not limited to, statements regarding Synopsys' short-term and long-term financial targets, expectations and objectives; business outlook, opportunities and strategies; customer demand and market expansion; strategies related to our products and technology; our planned product releases and capabilities; industry growth rates; software trends; planned acquisitions and buybacks; our expected tax rate; the expected impact of U.S. and foreign government action on our financial results; and the continued impact and duration of the COVID-19 pandemic. These statements involve risks, uncertainties and other factors that could cause our actual results, timeframes or achievements to differ materially from those expressed or implied in our forward-looking statements. Such risks, uncertainties and factors include, but are not limited to: risks from the continued impact of the COVID-19 pandemic on the global economy and on our business, operations and financial condition; uncertainty in the growth of the semiconductor and electronics industries; macroeconomic conditions and uncertainty in the global economy; consolidation among our customers and our dependence on a relatively small number of large customers; risks and compliance obligations relating to the global nature of our operations as well as actions by the U.S. or foreign governments, such as measures in response to the COVID-19 pandemic or the imposition of additional tariffs or export restrictions; fluctuation of our operating results; and more. Additional information on potential risks, uncertainties and other factors that could affect Synopsys' results is included in filings we make with the Securities and Exchange Commission from time to time, including in the sections entitled “Risk Factors” in its Annual Report on Form 10-K for the fiscal year ended October 31, 2020 and in its latest Quarterly Report on Form 10-Q. The information provided herein is as of December 1, 2021. Synopsys undertakes no duty, and does not intend, to update any forward-looking statement, whether as a result of new information, future events or otherwise, unless required by law.

**Regulation G**

In addition to financial results prepared in accordance with Generally Accepted Accounting Principles, or GAAP, this presentation also contains certain non-GAAP financial measures. Except for certain forward-looking non-GAAP financial measures for which a reconciliation is not possible without unreasonable efforts, reconciliations of the non-GAAP financial measures (either contained in this presentation or given verbally) to their most comparable GAAP measures are included in the table at the end of this presentation, along with the fourth quarter of fiscal year 2021 earnings release and financial supplement, dated December 1, 2021, and available on Synopsys' website at https://www.synopsys.com/company/investor-relations/financial-news.html.
## Synopsys: The Market & Technology Leader

### Broad Product Portfolio

#### Electronic Design Automation (EDA)

#### Semiconductor Intellectual Property (IP)

#### Software Security and Quality

<table>
<thead>
<tr>
<th></th>
<th>FY21</th>
<th>FY22 Targets(^{(1)})</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue:</strong></td>
<td>$4.20B</td>
<td>$4.725B - $4.775B</td>
</tr>
<tr>
<td><strong>Growth Rate:</strong></td>
<td>14.1%</td>
<td>12% - 14%</td>
</tr>
<tr>
<td><strong>Non-GAAP Operating Margin:</strong></td>
<td>30.5%</td>
<td>~31.8%*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Midpoint of range</td>
</tr>
<tr>
<td><strong>Non-GAAP EPS:</strong></td>
<td>$6.84</td>
<td>$7.73 - $7.80</td>
</tr>
<tr>
<td><strong>Growth Rate:</strong></td>
<td>23.2%</td>
<td>13% - 14%</td>
</tr>
<tr>
<td><strong>Operating Cash Flow:</strong></td>
<td>$1.49B</td>
<td>~$1.4B - ~$1.5B</td>
</tr>
<tr>
<td><strong>Business Model:</strong></td>
<td>Time-based, recurring revenue model; Non-cancellable backlog</td>
<td></td>
</tr>
</tbody>
</table>

\(^{(1)}\) These targets were provided by Synopsys as of December 1, 2021, and are not being updated at this time; a GAAP to non-GAAP reconciliation of FY22 Operating Margin targets and FY22 EPS targets are included at the end of this presentation.
Synopsys: The Market & Technology Leader

Electronic Design Automation
~35 years of investment and execution
~65% of revenue
Market Leader

Semiconductor IP
>20 years
~25% of revenue
#2 IP Vendor

Software Integrity
~7 years
~10% of revenue
Emerging Leader, Broadest Portfolio
Long-term Financial Objectives

While the results in any given period will vary due to timing of product deliverables, acquisitions or other near-term priorities, our long-term, multi-year objectives are:

**Revenue**
- Annual double-digit growth
  - EDA: double-digits
  - IP: mid-teens
  - SIG: 15-20%

**Margin**
- Annual non-GAAP operating margin expansion of more than 100 bps

**Earnings**
- Annual non-GAAP EPS growth in the mid-teens range

Utilize our strong cash flow for organic investments, M&A and share buybacks

---

1. These multi-year objectives are provided as of December 1, 2021.
2. Period to period fluctuations are a normal element of our business, driven particularly by timing of hardware and IP deliveries. Variability, which increased as a result of ASC 606 adoption, should be expected.
Synopsys: The Market and Technology Leader

Uniquely Positioned for Stability and Growth

► Robust End Markets Driving Growth

• Clear Technology Leadership
• Financial Strength and Growth
Global Value Chain – 2021E
EDA & IP – At the Heart of Accelerating Electronics Innovation

EDA & IP $14.0B
Embedded Software $12.8B
Foundry $107.2B
Semiconductors $605.4B
Electronic Systems $1,850B

Sources: ESD Alliance, Ipnest (Apr 2021), MarketsandMarkets (Mar 2020), IC Insights (Jun, Sep 2021), Internal estimates (Oct 2021)
Blue Chip, Diversified Customer Base

**Semiconductors**
- Semi R&D (including EDA) is a top investment priority for semi and system customers in all phases of business cycle
- Consists of virtually all semiconductor companies in the world, including all of the top 20
- One >10% customer in FY21

**Systems**
- >40% of our revenue comes from systems companies
- Systems companies develop chips as an input to an end product, rather than selling the chip itself
- Verification challenges are rapidly growing at the intersection of hardware and software

**Software Developers**
- Key function across all industries: semis and systems, to enterprises in segments such as financial services, medical devices, automotive, and industrial
- Targeting software developers
- Immense software complexity challenges plus high impact of security vulnerabilities
Demand for “Smart Everything” is Impacting Every Vertical
Artificial Intelligence Market Growth

Deep Learning Chipset Market to Reach $72B by 2025


Source: Tractica 2019
Enabling and Leveraging the Potential of AI

Design and Verification Tools for AI Processors

- Multiple years of collaboration alongside AI pioneers – deep understanding of AI design implications and challenges
- Verification solutions from architecture to simulation to emulation and prototyping
- Fusion Design Platform™ significantly enhanced to address AI processor design challenges
Enabling and Leveraging the Potential of AI

Leading AI-based Chip Design Technologies

- DSO.ai (Mar. 2020): The world’s first AI-driven design solution, delivers a significant leap in designer productivity
- “ML Everywhere” enables continuous improvement for better PPA and faster TTR
- “Synopsys’s PrimeTime with new machine-learning technology allows us to complete ECO runs in hours versus the days it took before, and reuse learnings across blocks, hierarchies, and even design styles.”
  - Renesas
IP Solutions Designed for AI Applications

• Proven IP solutions accelerate time-to-market

• Memory/interface/analog IP designed to handle the uniquely intensive AI demands of memory capacity, bandwidth and coherency

• ABI Research forecasts AI chipset sales to exceed $10B in 2024 with SoCs across all markets containing AI capabilities
Automotive – A Case Study

**CHIPS**
4 Billion transistors

**SYSTEMS**
Infotainment, GPS, Drivetrain, Sensors

**SOFTWARE**
>150M Lines of Code per vehicle

**ARTIFICIAL INTELLIGENCE**
Big Data, Capture, Analyze, Decision Making

**AUTONOMOUS DRIVING**
Systems of Systems

**OWNERSHIP & INFRASTRUCTURE**
Entire Ecosystem
New Electronics Architecture Required

Integrated Compute and Smart Sensor Architecture Requires Redesign

- Integrated Controllers per Domain
- Sensor Fusion
- Connectivity and upgradeability
- Highest reliability, security and safety
Synopsys: The Market and Technology Leader

Uniquely Positioned for Stability and Growth

• Robust End Markets Driving Growth

► Clear Technology Leadership

• Financial Strength and Growth
Synopsys: Silicon to Software

Software
- Application security & quality testing
- Leader in Gartner’s Magic Quadrant

Verification
- Fastest engines & unified platform
- HW/SW verification & early SW bring-up

IP
- Broadest portfolio of silicon-proven IP
- #1 interface, embedded mem. & physical IP

Design
- Digital & custom AMS platforms
- Long-standing market leader
- Best quality of results & highest productivity

Silicon
- TCAD, lithography tools & yield optimization
- Down to 5nm & below
LEADER IN EDA

• Market and technology leader in EDA, the tools and technologies used to design semiconductor chips and systems
  ~$8.9 billion market*; generally tracks semiconductor R&D spend over time

• Growth drivers: all aspects of chip & system complexity

• All leading semiconductor companies in the world use Synopsys technology

• State-of-the-art design and verification platforms with unmatched global support

* 2021E; Source: ESD Alliance, Internal estimates (Oct 2021)
#1 in Digital Design: Synopsys Fusion Design Platform™

**FUSION DESIGN PLATFORM**

- **RTL Architect**
  - Test Fusion
- **Design Compiler NXT**
  - TestMAX
- **IC Compiler II**
  - Fusion Compiler
- **Formality / ECO PrimeECO**
  - PrimeTime
  - PrimePower
  - PrimeShield
  - StarRC
  - IC Validator
  - RH Fusion

**Fusion Architecture**

- #1 Anchors: Synthesis, P&R, Signoff
- Fusion of algorithms, engines, data model

**Innovative Products**

- Industry Unique Fusion Compiler
- DC NXT, TestMAX, IC Validator NXT

**Market Leadership**

- AI-enhanced tools, AI-driven apps
- Cloud-ready
Synopsys Fusion Compiler™

- Only single product on market with innovative next-generation integration of synthesis, place & route and key signoff technologies
- Built with market-leading products
- Redefines conventional product boundaries; sharing of algorithms, code and data model
- New synthesis engine, developed from ground up for significantly higher capacity & performance
- Strong momentum with considerable benchmark wins and competitive displacements, driving accelerating digital design revenue growth
Custom Design Platform

- **Innovative Products**
  - Industry anchors HSPICE, CustomSim, FineSim
  - Custom Compiler Next-generation custom layout

- **Competitive Differentiation**
  - Flexible, open environment
  - Faster custom design closure

- **Market Momentum**
  - PrimeSim launched in March 2021
  - Multiple full flow competitive displacements

**CUSTOM DESIGN PLATFORM**

- Custom Compiler
- PrimeSim
- NanoTime
- PrimeLib
- StarRC
- IC Validator

**Signoff Fusion**
Verification Continuum® Platform

Best-in-Class Verification
Complete platform with #1 products in all categories, hardware-based and software-based

Fastest Engines
Highest-performance engines speed time-to-market

Accelerating Innovation
Investing in domain-specific, AI and cloud technology to improve verification efficiency

Machine Learning & Native Cloud

Domain-Specific Solutions
Verification Hardware: ZeBu® Server 4 Emulation System

Leading System for Software Bring-up
Only modern system to allow software-on-hardware validation

Industry’s Fastest Emulation System
2X higher performance

Industry’s Largest Capacity
Scalable to 19B+ gates

Industry’s Lowest Total Cost of Ownership
1/10th lower power consumption, half data center footprint
Introducing Application-Specific Verification Hardware

ZeBu EP1: Industry’s First 10 MHz Emulator
Accelerates hardware/software verification for SoCs up to 2 billion gates
3-4x higher performance vs competition
Supports at-speed, full-visibility debug and all emulation use cases

ZeBu Empower: Industry’s First Power Emulator
Enables power verification of complex SoC running real-world software
Native Cloud scalability for billions of SW cycles on multi-billion gate SoCs
Integrates with PrimePower, the industry’s golden power signoff solution
Verification Hardware: HAPS-100 Prototyping System

Industry’s Highest Performance Prototyping System
20-50 MHz for complex SoC software development and system validation

Industry’s Highest Prototyping Debug Productivity
4x higher debug performance vs HAPS-80

Enterprise and Ecosystem Scalability
HAPS Gateway software enabling multi-design, multi-user parallelization

Proven Direct Connect Architecture
Broadest portfolio of accessory cards for real-world IO connectivity

HAPS-100
Leader in Semi IP

• #2 market share in IP, the reusable building blocks that are used for chip designs
  – Leading supplier of interface, memory, analog and physical IP
  – ~$5.1 billion market*, benefitting from our customers’ move to outsourcing more and more complex IP

• IP reuse reduces our customers’ chip design costs, lowers risk and speeds time-to-market

• Serving high-impact, growing markets (IoT, Automotive, Security, Cloud Computing), advanced processes & protocols

• >20 years of investment and commitment resulting in unmatched portfolio breadth, quality and reliability

* 2021E; Source: Ipnest (Apr 2021); Internal estimates (Oct 2021)
Broadest and Most Comprehensive IP Platform

- Broadest portfolio available in the market; FY21 revenue >$1B
- Covers vast majority of chip
- Growing demand for more integrated subsystems
- New markets drive new opportunities
- Customers count on us for the long haul to accelerating time-to-market and reduce risk

* Small boxes are standard cell library elements.
High-Impact Markets: Increasing Technology Complexity
Driving Growth in Third-Party IP Demand

AI
Machine Learning, Deep Neural Networks

AUTOMOTIVE
ADAS, Infotainment, Connected Vehicle

CLOUD
Networking, Servers AI Accelerators

IoT
Smart Home, Industrial, Wearables
Comprehensive IP Solutions for Cloud Computing SoCs

**Servers**
- Improved power efficiency for high-density and edge environments

**Networking**
- Increasing data volume driven from rich media and high-speed devices

**Storage**
- Rapid data growth requires faster data access & local processing

**Artificial Intelligence**
- AI accelerators in cloud servers extract insights from large data sets

**DesignWare® Interface, Foundation and Processor IP for Cloud Applications**

- **Interface IP**: PCIe 6.0, 5.0, CXL, HBM2/2E, DDR5, 112G Ethernet, Die-to-Die
- **Foundation IP**: specialty memories & logic libraries
- **Processor IP**: ARC HS Processors
Silicon Lifecycle Management Platform

<table>
<thead>
<tr>
<th>Silicon Lifecycle Management</th>
<th>New Insights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design Calibration Analytics</strong></td>
<td><strong>Monitor, manage and optimize the performance, health and security of the chip from initial qualification to end-of-life</strong></td>
</tr>
<tr>
<td>PrimeShield™</td>
<td></td>
</tr>
<tr>
<td>Product Yield Ramp Analytics</td>
<td></td>
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<tr>
<td>Test and Quality Analytics</td>
<td></td>
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<tr>
<td>Predictive Maintenance Analytics</td>
<td></td>
</tr>
<tr>
<td>SLM Database</td>
<td></td>
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<tr>
<td>SiliconDash® Database</td>
<td></td>
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<tr>
<td>Adaptive Learning Engine</td>
<td></td>
</tr>
<tr>
<td>TestMAX® ALE</td>
<td></td>
</tr>
<tr>
<td>Embedded Learning Engine (ELE)</td>
<td></td>
</tr>
<tr>
<td>Hardware Monitor IP</td>
<td></td>
</tr>
<tr>
<td>PVT sensors, TestMAX® DFT/BIST</td>
<td></td>
</tr>
</tbody>
</table>

New Insights:

- **Monitor, manage and optimize the performance, health and security of the chip from initial qualification to end-of-life**

Silicon Lifecycle in Field Operation:

- **Design**
- **Manufacturing**
- **Test**
- **Debug/Bring-up**
- **In-Field Operation**
Entered the software security & quality space in 2014

- Assembled and developed the broadest portfolio of solutions on the market; $394 million revenue in FY21
- Solutions allow organizations to identify and fix security and quality defects early in software development lifecycle
- Approximately $2-2.5 billion served market: fragmented, with numerous point solutions; recognition of cost of software failure has increased dramatically
- Synopsys Polaris Software Integrity Platform® enables customers to fully leverage the strength of the core products and integrate Synopsys into critical development workflows

Leader in Software Integrity
Software Security & Quality Market

TAM\(^1\): \$4.5-6.5B

SAM:
\$2-2.5B

1. AST, TVM/VA, cloud security

- Evolving, nascent market
- Growth drivers:
  - Omnipresence of software
  - Widespread connectivity exacerbates security issues
  - Significant business risk from breaches
  - Large development teams
- Market growth rate: mid-teens %
- Synopsys L-T multi-year growth objective: 15-20% range*

Sources: Gartner, Forrester, IDC, other external and internal analyses

*This multi-year objective is provided as of December 1, 2021
Growing the Software Integrity Platform - Acquisitions
<table>
<thead>
<tr>
<th>Static Analysis</th>
<th>Software Composition Analysis</th>
<th>Dynamic Analysis</th>
<th>Security Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Find critical defects and vulnerabilities in code</td>
<td>• Find known vulnerabilities in open-source &amp; 3rd party code</td>
<td>• Tests running apps for security vulnerabilities</td>
<td>• Strategic analysis to build Software Security Initiative</td>
</tr>
<tr>
<td>• Runs in the dev environment and DevSecOps workflow</td>
<td>• Identifies license and compliance risks</td>
<td>• Enables dev to fix security flaws early in the SDLC</td>
<td>• DevSecOps integration injects security into dev workflow</td>
</tr>
<tr>
<td>• OWASP Top 10 and CWE Top 25</td>
<td>• Tests source and binaries in apps and containers</td>
<td>• API Scanner for IoT devices and mobile backend servers</td>
<td>• Managed services provides full testing capabilities</td>
</tr>
<tr>
<td>• Automotive compliance (MISRA, ISO26262)</td>
<td>• Supply chain total health with SW BoM</td>
<td>• Fuzzing for automotive protocols and 5G</td>
<td>• Architecture/design modeling eliminates software flaws</td>
</tr>
</tbody>
</table>
Build Trust in Your Software

Polaris

<table>
<thead>
<tr>
<th>Code Sight</th>
<th>Intelligent Orchestration</th>
<th>Code Dx</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAST/ Coverity</td>
<td>SCA/ Black Duck</td>
<td>IAST/ Seeker</td>
</tr>
<tr>
<td>Fuzzing/ Defensics</td>
<td>DAST/ Tinfoil</td>
<td>eLearning</td>
</tr>
</tbody>
</table>

Security Testing Services

3rd Party Products

Open Source Products

Strategy, programs, and services

Comprehensive
SW security & quality across entire SW development lifecycle

Developer-centric
Automated tools integrated into existing DevOps toolchains

Higher Fidelity
Intelligently detect & fix vulnerabilities and manage risk
Synopsys is a Leader in Application Security Testing
Recognized as a Leader for the 5th year in a row

2021 Gartner Magic Quadrant for Application Security Testing

Download a free copy of the 2021 Magic Quadrant for Application Security Testing.

This graphic was published by Gartner, Inc. as part of a larger research document and should be evaluated in the context of the entire document. The Gartner document is available upon request here.

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Recognized Leader in End-to-End Application Security

Synopsys is the only vendor recognized as the leader in both SAST & Open Source (SCA)

Download a free copy of The Forrester Wave™: Static Application Security Testing, Q1 2021

Source: Forrester (January 2021)

Download a free copy of The Forrester Wave™: Software Composition Analysis, Q3 2021

Source: Forrester (August 2021)
Trusted Partner

Our mission is to help build secure, high-quality software faster

17 of the Top 25 Commercial Banks
5 of the Top 5 Financial Data Services Firms
9 of the Top 10 Software Companies
5 of the Top 5 Aerospace & Defense Firms
14 of the Top 15 Semiconductor Manufacturers
3 of the Top 4 U.S. communications providers
Synopsys: The Market and Technology Leader

Uniquely Positioned for Stability and Growth

• Robust End Markets Driving Growth
• Clear Technology Leadership
  ▶ Financial Strength and Growth
Excellent Financial Execution

Nearly 90% recurring revenue model with $6.9B non-cancellable backlog provides stability throughout the business cycle***

Revenue (M)

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY17</td>
<td>$2,725</td>
</tr>
<tr>
<td>FY18</td>
<td>$3,121</td>
</tr>
<tr>
<td>FY19</td>
<td>$3,361</td>
</tr>
<tr>
<td>FY20</td>
<td>$3,685</td>
</tr>
<tr>
<td>FY21</td>
<td>$4,204</td>
</tr>
<tr>
<td>FY22E**</td>
<td>$4,725-$4,775</td>
</tr>
</tbody>
</table>

Non-GAAP EPS*

<table>
<thead>
<tr>
<th>Year</th>
<th>EPS (Diluted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY17</td>
<td>$3.42</td>
</tr>
<tr>
<td>FY18</td>
<td>$3.91</td>
</tr>
<tr>
<td>FY19</td>
<td>$4.56</td>
</tr>
<tr>
<td>FY20</td>
<td>$5.55</td>
</tr>
<tr>
<td>FY21</td>
<td>$6.84</td>
</tr>
<tr>
<td>FY22E**</td>
<td>$7.73-$7.80</td>
</tr>
</tbody>
</table>

* A GAAP to non-GAAP reconciliation of FY17 to FY22E earnings per share is included at the end of this presentation
** FY22E reflects guidance provided as of December 1, 2021
*** We define recurring revenue as revenue generated from time-based products, multi-period IP contracts, and maintenance and services, for which revenue is recognized over time

Strong financial execution while investing for long-term growth
Cash Flow & Capital Allocation

- Roughly tracks EBITDA less cash taxes on multi-year basis
- Variable from year to year, based mainly on timing of large contracts and payments
- Repurchased more than $2.5B in stock since 2016
- Capital allocation priorities:
  - Internal investments
  - Buybacks and acquisitions

* Includes approximately $230M in one-time payments
** FY22E reflects targets provided by Synopsys as of December 1, 2021
Synopsys Corporate Social Responsibility

Working Together for a **Smart Future**

Our Smart Future CSR program provides a focus and structure for how we address both our own operational impact on the world and our ability to influence others around us.
Synopsys ESG Progress Highlights

Scope 1 and 2 GHG emissions
- Pledged to reduce by 25% by 2024 over 2018 baseline, in line with Paris Agreement’s goal to limit global temperature rise within 1.5 degrees Celsius above pre-industrial levels.
- Entered into one of the largest corporate aggregated clean energy procurement agreements to accelerate renewable energy development

Achieved CarbonNeutral® certification for third consecutive year

Inclusion & Diversity efforts have led to enhanced gender diversity across company and on Board of Directors
- 33% female representation on Board

Employee engagement: critical component of human capital management
- Frequent, results-driven employee surveys – most recent achieved 88% participation rate
- Have expanded our disclosures in annual SEC Form 10-K
Synopsys ESG Progress Highlights

Security
• Formally adopted industry-recognized frameworks to structure, test and assess the rigor of our cybersecurity and product security practices.
• Our leading Software Integrity business offers security-enhancing products and services that help enterprises build more secure software development processes.

Corporate Social Responsibility report
• Published second annual CSR Report earlier this year with alignment to GRI standards and in line with disclosures recommended by SASB.

Ratings progress
• As a result of step-by-step enhancements to our disclosures, governance and goal setting, we’ve made good progress in improving our ratings – in particular, for ISS ESG, Sustainalytics and MSCI.
Market and Technology Leader

Electronic Design Automation
Semiconductor Intellectual Property
Software Security & Quality

Solid Financials
Recurring revenue model
Large, non-cancellable backlog
Excellent execution
GAAP to Non-GAAP Reconciliation\(^{(1)}\)

**Earnings Per Share – Full Fiscal Year 2022 Targets**

For additional information about the measures Synopsys uses to evaluate its core business operations, please review the earnings press release and Item 2.02 of the Current Report on Form 8-K filed on December 1, 2021.

<table>
<thead>
<tr>
<th>Adjustment</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amortization of intangible assets</td>
<td>0.54</td>
<td>0.50</td>
</tr>
<tr>
<td>Stock compensation</td>
<td>3.00</td>
<td>2.93</td>
</tr>
<tr>
<td>Restructuring charges</td>
<td>0.13</td>
<td>0.05</td>
</tr>
<tr>
<td>Tax adjustments</td>
<td>(1.33)</td>
<td>(1.33)</td>
</tr>
<tr>
<td><strong>Target non-GAAP earnings per share</strong></td>
<td>$ 7.73</td>
<td>$ 7.80</td>
</tr>
</tbody>
</table>

| Shares used in non-GAAP calculation (midpoint of target range) | 158,500 | 158,500 |

**Range for Fiscal Year October 31, 2022**

- **Low**: $5.39
- **High**: $5.65

---

\(^{(1)}\) Synopsys' first fiscal quarter and fiscal year will end on January 29, 2022 and October 29, 2022, respectively. For presentation purposes, we refer to the closest calendar month end.
GAAP to Non-GAAP Reconciliation \(^{(1)}\)

Operating Margin – Full Fiscal Year 2021 and Midpoint of 2022 Targets

<table>
<thead>
<tr>
<th>At midpoint of revenue and expense guidance ranges</th>
<th>Twelve Months Ended October 31, 2021</th>
<th>Twelve Months Ended October 31, 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAAP operating margin</td>
<td>17.5%</td>
<td>19.9%</td>
</tr>
<tr>
<td>Amortization of intangible assets</td>
<td>2.0%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Stock compensation</td>
<td>8.2%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Acquisition-related costs</td>
<td>0.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Restructuring charges</td>
<td>0.8%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Non-qualified deferred compensation plan</td>
<td>1.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Target non-GAAP operating margin</td>
<td>30.5%</td>
<td>31.8%</td>
</tr>
</tbody>
</table>

(1) Synopsys’ fiscal year 2021 ended on October 30, 2021 and its fiscal year 2022 will end on October 29, 2022. For presentation purposes, we refer to the closest calendar month end.

(2) These numbers represent the midpoint of targets in the prepared remarks provided on December 1, 2021, and do not represent official guidance for fiscal year 2022.

For additional information about the measures Synopsys uses to evaluate its core business operations, please review the earnings press release and Item 2.02 of the Current Report on Form 8-K filed on December 1, 2021.
**GAAP to Non-GAAP Reconciliation**

**Earnings Per Share – Full Fiscal Years 2017 to 2021 Actual Results**

<table>
<thead>
<tr>
<th></th>
<th>ASC 605 FY2017</th>
<th>ASC 605 FY2018</th>
<th>ASC 606 FY2019</th>
<th>ASC 606 FY2020</th>
<th>ASC 606 FY2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAAP diluted net income per share</td>
<td>$0.88</td>
<td>$2.82</td>
<td>$3.45</td>
<td>$4.27</td>
<td>$4.81</td>
</tr>
<tr>
<td><strong>Adjustments:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amortization of intangible assets</td>
<td>0.70</td>
<td>0.82</td>
<td>0.65</td>
<td>0.59</td>
<td>0.52</td>
</tr>
<tr>
<td>Stock compensation</td>
<td>0.70</td>
<td>0.91</td>
<td>1.01</td>
<td>1.60</td>
<td>2.19</td>
</tr>
<tr>
<td>Acquisition-related costs</td>
<td>0.06</td>
<td>0.14</td>
<td>0.04</td>
<td>0.08</td>
<td>0.10</td>
</tr>
<tr>
<td>Restructuring charges</td>
<td>0.24</td>
<td>0.08</td>
<td>0.31</td>
<td>0.23</td>
<td>0.21</td>
</tr>
<tr>
<td>Legal matters</td>
<td>0.05</td>
<td>0.17</td>
<td>(0.12)</td>
<td>-</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Income tax related to transition tax</td>
<td>-</td>
<td>0.41</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Income tax related to tax rate change</td>
<td>-</td>
<td>0.33</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Income tax related to tax restructuring</td>
<td>-</td>
<td>(1.12)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tax impact of repatriation</td>
<td>1.07</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tax settlement</td>
<td>-</td>
<td>-</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tax adjustments</td>
<td>(0.28)</td>
<td>(0.65)</td>
<td>(0.89)</td>
<td>(1.22)</td>
<td>(0.98)</td>
</tr>
<tr>
<td><strong>Non-GAAP diluted net income per share</strong></td>
<td>$3.42</td>
<td>$3.91</td>
<td>$4.56</td>
<td>$5.55</td>
<td>$6.84</td>
</tr>
</tbody>
</table>

For additional information about the measures Synopsys uses to evaluate its core business operations, please review the earnings press release and Item 2.02 of the Current Report on Form 8-K filed on December 1, 2021.
THANK YOU