Forward-Looking Statements

This presentation contains forward-looking statements under the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934, including, but not limited to, financial targets for the third quarter and full fiscal year 2019, their comparative metrics under ASC 605, and GAAP to non-GAAP reconciliations of such targets; expected impact of ASC 606; projected financial results; long-term growth rates; expected share count; revenue variability; hardware growth; industry growth rates; software trends; long-term objectives; business outlook, opportunities, and strategies; customer and market expansion; planned acquisitions and buybacks; and the expected impact of the recent U.S. government action on Synopsys’ fiscal 2019 results. These statements involve known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied. Accordingly, we caution stockholders and prospective investors not to place undue reliance on these statements. Such risks include, but are not limited to: additional administrative, legislative or regulatory action by the U.S. or foreign governments, such as the imposition of additional tariffs or export restrictions, which could further interfere with our ability to provide products and services in certain countries; the response by current or potential customers and their willingness to purchase products and services from us in the future; uncertainty in the growth of the semiconductor and electronics industries; consolidation among our customers and our dependence on a relatively small number of large customers; continued uncertainty in the global economy; fluctuation of our operating results; increased variability in our revenue due to the adoption of ASC 606, including the resulting increase in recognizing upfront revenue as a percentage of total revenue; our highly competitive industries and our ability to meet our customers’ demand for innovative technology at lower costs; risks and compliance obligations relating to the global nature of our operations; cybersecurity threats or other security breaches; our ability to protect our proprietary technology; our ability to realize the potential financial or strategic benefits of acquisitions we complete; and others. More information on potential risks, uncertainties and other factors that could affect Synopsys’ results is included in filings it makes 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, 2018 and in its latest Quarterly Report on Form 10-Q. The information provided herein is as of May 22, 2019. 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 will also contain 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 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 second quarter 2019 earnings release and financial supplement, dated May 22, 2019, and available on Synopsys’ website at https://www.synopsys.com/company/investor-relations/financial-news.html.
<table>
<thead>
<tr>
<th></th>
<th>FY18&lt;sup&gt;(1)&lt;/sup&gt; (ASC 605)</th>
<th>Comparative Metrics&lt;sup&gt;(2)&lt;/sup&gt; FY19 (ASC 605)&lt;sup&gt;(3)&lt;/sup&gt;</th>
<th>FY19 Targets&lt;sup&gt;(2)&lt;/sup&gt; (ASC 606)&lt;sup&gt;(3)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue:</strong></td>
<td>$3.121B</td>
<td>$3.34B - $3.38B</td>
<td>$3.29B - $3.35B</td>
</tr>
<tr>
<td><strong>Growth Rate:</strong></td>
<td></td>
<td>7% - 8%</td>
<td>5% - 7%</td>
</tr>
<tr>
<td><strong>Non-GAAP EPS:</strong></td>
<td>$3.91</td>
<td>$4.44 - $4.60</td>
<td>$4.24 - $4.40</td>
</tr>
<tr>
<td><strong>Operating CF:</strong></td>
<td>$424M&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>$670M - $700M&lt;sup&gt;(5)&lt;/sup&gt;</td>
<td>$670M - $700M&lt;sup&gt;(5)&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

**Business Model:** Time-based, recurring revenue model ~3 years contract duration in FY19

---

<sup>(1)</sup> Includes the impact of an extra fiscal week in FY2018

<sup>(2)</sup> These targets and comparative metrics were provided by Synopsys as of May 22, 2019, and are not being updated at this time; a GAAP to non-GAAP reconciliation of FY19 EPS targets is included at the end of this presentation

<sup>(3)</sup> Targets are provided under a new accounting standard (ASC 606), which became effective Q1, FY19. For the purpose of historical comparison, targets have been translated into comparative metrics under the old accounting standard (ASC 605). A primer providing additional details on this transition is included at the end of this presentation

<sup>(4)</sup> Reflects one-time cash payments totaling ~$230M (~$33M cash taxes associated with Q4'17 repatriation of offshore cash; ~$66M payment to Hungarian tax authority to continue our appeal of a tax dispute; ~$65M payment for settlement of all patent litigation with Mentor Graphics; ~$67M IP transfer payment resulting from Dec 2017 U.S. tax reform)

<sup>(5)</sup> Reflects receipt of ~$18M from a litigation settlement and restructuring payments related to reallocating resources to drive long-term objectives
Synopsys: The Market & Technology Leader

Software Integrity
5 years
~10% of revenue

Semiconductor IP
>15 years
20%+ of revenue

Electronic Design Automation
>30 years of investment and execution
~65% of revenue

Emerging Leader, Broadest Portfolio
Growth: ~20%

#2 IP Vendor
Growth: low double digits

Market Leader
Growth: mid-high single digits
Uniquely Positioned for Stability and Growth

- Electronics complexity driving growth
- Clear technology leadership
- Financial strength and growth
Global Value Chain

EDA & IP – at the Heart of Accelerating Electronics Innovation

EDA & IP $11.2B*

Embedded Software $10.0B*

Foundry $71.1B

Semiconductors $504.1B

Electronic Systems $1,622B

*Estimates are provided for EDA/IP/Embedded Software
Source: IC Insights, VDC Research, Synopsys Internal Estimates for 2018
Blue Chip, Diversified Customer Base

Semiconductors
• Consists of virtually all semiconductor companies in the world, including all of the top 20
• One >10% customer in ‘18
• Investment in developing highly complex chips is a clear priority for customers, whether at advanced or more established process nodes

Systems
• ~40% of our revenue comes from systems companies
• Systems houses 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 the 20M+ SW developers
• Challenges: immense SW complexity and security vulnerabilities
New Technology is Impacting Every Vertical
Artificial Intelligence Market Growth

Chipsets across all markets will include Deep Learning Capabilities

- **Mobile** - All premier smartphones will integrate AI Processing Capabilities by 2021
- **Data Center** - More than 50% of enterprises will deploy AI accelerators in their server infrastructure by 2022
- **Auto** - Volume production of autonomous vehicles will begin in 2020
- **IoT** - More than 20% of IoT devices will have AI Processing Capabilities by 2022

Source: Gartner (January 2018)
Enabling and Leveraging the Potential of AI

**Synopsys tools incorporate AI/ML technologies while enabling AI processor development**

**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
- Digital Design Platform with Fusion Technology™ significantly enhanced to address AI processor design challenges

**Leading AI-based chip design technologies**
- Design tools with state-of-the-art machine learning technology to address extreme complexities of leading-edge designs
- “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
- Embedded vision processors with safety enhancement packages
Automotive

OWNERSHIP & INFRASTRUCTURE
Entire Ecosystem

AUTONOMOUS DRIVING
Systems of systems

ARTIFICIAL INTELLIGENCE
Big Data, Capture, Analyze, Decision Making

SOFTWARE
>150M Lines of Code per vehicle

SYSTEMS
Infotainment, GPS, Drivetrain, Sensors

CHIPS
4 Billion transistors

Secure

Synopsys

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IP Enabling Critical Functions in Automotive SoCs
Automotive Opportunity: Software Security & Quality

11 of the top 15
Automotive OEMs use
Synopsys Software Integrity

<table>
<thead>
<tr>
<th>Static Analysis</th>
<th>Security Testing</th>
<th>Supply Chain Management</th>
<th>Security Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find critical defects and vulnerabilities in code</td>
<td>Find vulnerabilities before hackers</td>
<td>Find known vulnerabilities in open-source &amp; 3rd party code</td>
<td>Gap analysis / remediation planning</td>
</tr>
<tr>
<td>Automotive compliance (MISRA, ISO26262)</td>
<td>Fuzzing for automotive protocols</td>
<td>Supply chain total health with SW BoM</td>
<td>Remediation plan execution</td>
</tr>
<tr>
<td>OWASP Top 10 and CWE Top 25</td>
<td>Ethernet, WiFi, CAN, Bluetooth, SMS, DHCP</td>
<td>Secure integration of connected systems</td>
<td>Ongoing program execution</td>
</tr>
</tbody>
</table>
Advanced Process Development Continues

TSMC 7-nm Process Experiencing Heavy Market Demand

AMD Zen+ 7nm “Gray Hawk” APU To Be Out In 2019 | 4 Cores, 8 Threads & 10W, Reports say

Tesla’s In-House SoC Is Built On 14nm, Has A 260mm² Area & 2100FPS

GlobalFoundries Begins Ramping 14nm Production For Customers

COMPANY TSMC IS PREPARING TO RELEASE A 3-NANOMETER CHIPS – 24 CHANNEL

Samsung Unveils The World’s First 10-nm FinFET Semiconductor Technology

Intel Opens Door on 7nm, Foundry

ARM lays out plans for 5nm “Hercules” core design by 2020
Synopsys: The Market & Technology Leader

Uniquely Positioned for Stability and Growth

- Electronics complexity driving growth
- Clear technology leadership
- Financial strength and growth
• Market and technology leader in EDA, the tools and technologies used to design semiconductor chips
  ~$6.9 billion market*; generally tracks semiconductor R&D spend over time

• All leading semiconductor companies in the world use Synopsys technology

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

* IBS data for 2018
Synopsys Fusion Design Platform™

Trusted Anchor Products, Correlated Platform with Synergistic Value Links

- #1 Synthesis, #1 P&R, #1 Signoff
- Machine Learning Technologies
- Massively Parallel Architecture

- Deep Integrations Across Platform
- In-Design Physical Signoff
- Co-Design Custom Implementation
Introducing Synopsys Fusion Compiler™

- Only single product on market that integrates 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
- Additional capabilities over next year
Synopsys Custom Compiler™ Adoption Growing
#1 in Digital/Functional Verification

Verification Continuum™ Platform

- Complete platform with #1 products in all categories
- Industry’s highest-performance engines
- Uniquely positioned for early software bring-up
- Domain-specific solutions for automotive, 5G and AI designs
- Accelerating innovation with investments in cloud and machine learning technologies
Verification Hardware: Introducing ZeBu® Server 4

Leading system for software bring-up
Only modern system to allow software-on-hardware validation

Industry’s fastest emulation system
Now 2x higher performance

Industry’s largest capacity
Scalable to 19B+ gates

Industry’s lowest total cost of ownership
5x lower power consumption, half data center footprint
#1 in Analog/Mixed Signal Simulation

- Market leader for >20 years
- Close collaboration with leaders in memory, automotive IC and high-performance computing
• #2 market share in IP, the reusable building blocks that are used for chip designs
  – Leading supplier of interface, memory, analog and physical IP
  – ~$4.3 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

• We’re investing in new markets (IoT, Automotive, Security, Cloud Computing) & latest processes and protocols

• >15 years of investment and commitment resulting in unmatched portfolio breadth, quality and reliability

* IBS data for 2018
Synopsys DesignWare® IP

• Broadest portfolio available in the market
• Covers vast majority of chip
• Growing demand for more integrated subsystems
• New markets drive new opportunities
• Customers count on us for the long haul

* Small boxes are standard cell library elements.
New Markets: More Functionality in Key Markets

Driving New Technology Requirements

- **AI**
  - Machine Learning, Deep Neural Networks

- **AUTOMOTIVE**
  - ADAS, Infotainment, Connected Vehicle

- **CLOUD**
  - Networking, Servers AI Accelerators

- **IoT**
  - Smart Home, Industrial, Wearables
• Entered the software security & quality space in 2014
  – Since then, have assembled the broadest portfolio of solutions on the market; >$300M revenue annually
  – Solutions allow software code developers to fix security or quality defects early in development
  – Approximately $2.5 billion+ market: fragmented, with numerous point solutions; recognition of cost of software failure has increased dramatically

• Announced Synopsys Polaris Software Integrity Platform™
  – The most advanced and complete set of security and quality tools for every step of the software development lifecycle
Software Security & Quality Market

TAM: ~$4.5-6.5B

SAM: ~$2-2.5B

- Evolving, nascent market
- Growth drivers:
  - Omnipresence of software
  - Widespread connectivity exacerbates security issues
  - Significant business risk from breaches
  - Large development teams
- ~20% growth segment

Sources: Gartner, Forrester, IDC, other external and internal analyses
Growing the Software Integrity Platform - Acquisitions

- **Coverity**
  - Acquired 2014
  - Tools Acquired:
    - Quality & Security Advisor
    - Coverity
    - TA DEV

- **Codenomicon**
  - Acquired 2015
  - Tools Acquired:
    - Defenses Fuzzer
    - AppCheck

- **Protecode**
  - Acquired 2015
  - Tools Acquired:
    - Software Composition Analysis

- **Cigital**
  - Acquired 2016
  - Services Acquired:
    - Professional Services
    - Managed Services
    - BSIMM
    - Tools Acquired:
      - SecureAssist
      - eLearning

- **Black Duck**
  - Acquired 2017
  - Tools Acquired:
    - Open source software management
    - Source code scanner
    - Comprehensive open source database

- **Kalistick**
  - Acquired 2014
  - Tools Acquired:
    - TA QA

- **Seeker**
  - Acquired 2015
  - Tools Acquired:
    - IAST
    - R&D team from Quotium

- **Goanna**
  - Acquired 2015
  - Tools Acquired:
    - Goanna (Coverity)

- **Forcheck**
  - Acquired 2016
  - Tools Acquired:
    - Static analysis for Fortran
Addressing Security & Quality Holistically

- **Strategy & Planning**
  - Building Security in Maturity Model (BSIMM)
  - Maturity Action Plan (MAP)

- **Professional Services**
  - Architecture and Design
  - Security Training
  - DevSecOps Integration
  - Cloud Security
  - Industry Solutions

- ** Managed Services**
  - Static Application Security Testing
  - Mobile Application Security Testing
  - Penetration Testing
  - Dynamic Application Security Testing

- **Integrated Tools**
  - Coverity Static Analysis
  - Black Duck Open Source Analysis
  - Seeker & Defensics Dynamic Analysis

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Synopsys Polaris Software Integrity Platform™

Polaris

- Centralized Management
- Consolidated Reporting
- Alerting & Workflow

Integrated Analysis Engines

- Coverity: SAST
- Black Duck: SCA
- Seeker: IAST
- Managed Services: SAST/DAST, Pen, Network

- CI/CD Integration
- Cloud/On-Prem Deployment

- Platform that integrates all products and managed services
  - Cloud-based
  - Enterprise scale
- Single user interface, easy to use
- Unified management reports
- Allows customers to adopt small and expand when they need to
- Inaugural integration launched in March
Recognized Leader in End-to-End Application Security
Synopsys is the only vendor recognized as the leader in both SAST and Open Source (SCA)

Download a free copy of the 2019 Magic Quadrant for Application Security Testing.
Recognized Leader in End-to-End Application Security
Synopsys is the only vendor recognized as the leader in both SAST and Open Source (SCA)

Forrester Wave Static Application Security Testing

Forrester Wave Software Composition Analysis

Source: Forrester (December 2017)

Source: Forrester (April 2019)
Trusted Partner to >4,000 Companies

16 of top 20
Commercial Banks

7 of top 10
Aerospace & Defense Firms

8 of top 10
Global Brands

6 of top 10
Semiconductor Companies

9 of top 10
ISVs
Growth Strategy

• Continue to scale business and extend our lead in this emerging market
  • *Land* in core and new verticals with best-in-class capabilities in each tool
  • *Expand* through suite of additional solutions delivered via integrated Polaris Software Integrity Platform™
  • *Leverage* existing international sales capabilities to drive global growth
• Gradually expand margins without hindering growth opportunity
  • Prudent expense management
Synopsys: The Market & Technology Leader

Uniquely Positioned for Stability and Growth

• Electronics complexity driving growth
• Clear technology leadership
• Financial strength and growth
Long-Term Financial Objectives*

- While the results in any given period may vary due to acquisitions or other near-term priorities, our primary long-term objective is to drive **double-digit non-GAAP EPS growth** on a multi-year basis, through a mix of the following elements:
  - Grow **total revenue** generally in the **high-single-digit range**
    - **EDA revenue** generally in the **mid-to-high single digits**
    - **IP/Systems revenue** generally in the **low double-digits**
    - **Software Integrity revenue** generally in the **20% range**
  - Drive non-GAAP **operating margin into the high-twenties by 2021 and 30% range longer-term**
  - Utilize our strong **cash flow primarily for M&A and share buybacks**

* This multi-year objective is provided as of May 22, 2019
Excellent Financial Execution

**Revenue ($M)**

- **FY15**: $2,242
- **FY16**: $2,423
- **FY17**: $2,725
- **FY18**: $3,121
- **FY19E****: $3,290 - $3,350

**Non-GAAP EPS***

- **FY15**: $2.77
- **FY16**: $3.02
- **FY17**: $3.42
- **FY18**: $3.91
- **FY19E****: $4.24 - $4.40

~90% recurring revenue model with $4.3B noncancelable backlog provides stability throughout the business cycle***

Strong financial execution while investing for long-term growth

* FY15 to FY19E GAAP to non-GAAP EPS reconciliation is included at the end of this presentation
** FY19E reflects guidance provided as of May 22, 2019 under ASC 606
*** 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
Cash Flow & Capital Allocation

Operating Cash Flow ($M)

<table>
<thead>
<tr>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18*</th>
<th>FY19E**</th>
</tr>
</thead>
<tbody>
<tr>
<td>$495</td>
<td>$587</td>
<td>$635</td>
<td>$424</td>
<td>$670-$700</td>
</tr>
</tbody>
</table>

Roughly tracks EBITDA less cash taxes on multi-year basis

Variable from year to year, based mainly on timing of large contracts and one-time payments

Stock Repurchases ($M)

<table>
<thead>
<tr>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>$280</td>
<td>$400</td>
<td>$400</td>
<td>$400</td>
<td>$129</td>
</tr>
</tbody>
</table>

Repurchased ~$1.6B in stock since 2015, reducing share count by ~6M shares

~80% of FCF returned to investors via share buybacks

Capital allocation priorities:
- Internal investments
- Buybacks and acquisitions

* Includes approximately $230M in one-time payments
** FY19E reflects guidance provided on May 22, 2019
Market & Technology Leader:
• Electronic Design Automation
• Semiconductor Intellectual Property
• Software Security & Quality

Solid Financials:
• Recurring revenue model
• Large, non-cancellable backlog
• Excellent execution
ASC TOPIC 606 – DESCRIPTION OF CHANGES

In May 2014, the Financial Accounting Standards Board issued new revenue recognition requirements that became effective for Synopsys in FY19. We adopted these changes using the “modified retrospective method,” under which the cumulative effect of initially applying the new recognition standards is recognized at the date of initial application (Q1 of FY19). The estimated transition impact described below is based on calculations that remain ongoing and will likely change throughout the year.

Description:
- Adoption of ASC 606 is an accounting change regarding the rules of revenue recognition for multi-product contracts.
- ASC 606 does not change our operations or how we run our business. It will have no impact on cash flow or compensation plans, and revenue from the majority of our contracts will be unchanged.

What changes:
- **One-time:** using the “modified retrospective method,” a portion of our contracted but unsatisfied performance obligations (“backlog”) was recast at the beginning of FY19. Revenue during the 2019 transition year is currently estimated to be approximately $40 million lower under ASC 606 than it would be under ASC 605.
- **Ongoing:** our time-based revenue from multi-period IP license contracts that was previously recognized ratably (as time-based revenue) will instead be recognized in the period in which the IP is delivered (as upfront revenue), resulting in greater quarterly variability.

  However, there is no change to our IP arrangements, the economic value of those arrangements, or the cash flow they generate.
### Primary Accounting Treatment

<table>
<thead>
<tr>
<th>Metric</th>
<th>ASC 605</th>
<th>ASC 606</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software License Revenue</td>
<td>Time-based</td>
<td>Time-based</td>
<td>n/m*</td>
</tr>
<tr>
<td>IP License Revenue</td>
<td>Majority time-based</td>
<td>Recognized on delivery throughout contract term; recorded as Upfront (see below example)</td>
<td>Moderate</td>
</tr>
<tr>
<td>Hardware Revenue</td>
<td>Upfront</td>
<td>Upfront</td>
<td>n/m*</td>
</tr>
<tr>
<td>Maint &amp; Service Revenue</td>
<td>Time-based</td>
<td>Time-based</td>
<td>n/m*</td>
</tr>
<tr>
<td>Commission Expense</td>
<td>On shipment</td>
<td>Over contract term</td>
<td>n/m*</td>
</tr>
</tbody>
</table>

* Not material

---

### Example: Customer signs contract for use of $9 million worth of IP licenses over 3-year period

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Activity:</td>
<td>5 IP titles delivered to customer with total value of $3M</td>
<td>7 IP titles delivered to customer with total value of $4M</td>
</tr>
<tr>
<td>Revenue Recognized:</td>
<td>$3M (1/3 of 3-year contract)</td>
<td>$3M (1/3 of 3-year contract)</td>
</tr>
<tr>
<td>Under previous ASC 605 rules:</td>
<td>$3M (value of IP used in period)</td>
<td>$4M (value of IP used in period)</td>
</tr>
</tbody>
</table>
GAAP to Non-GAAP Reconciliation

Earnings Per Share – Full Fiscal Year 2019 Targets(1)

Target GAAP earnings per share

Adjustments:
- Estimated impact of amortization of intangible assets
- Estimated impact of stock compensation
- Acquisition-related costs
- Estimated impact of restructuring
- Legal matters
- Tax settlement
- Estimated impact of tax adjustments

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated impact of amortization of intangible assets</td>
<td>0.67</td>
<td>0.63</td>
</tr>
<tr>
<td>Estimated impact of stock compensation</td>
<td>1.04</td>
<td>1.00</td>
</tr>
<tr>
<td>Acquisition-related costs</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Estimated impact of restructuring</td>
<td>0.39</td>
<td>0.23</td>
</tr>
<tr>
<td>Legal matters</td>
<td>(0.12)</td>
<td>(0.12)</td>
</tr>
<tr>
<td>Tax settlement</td>
<td>0.11</td>
<td>0.11</td>
</tr>
<tr>
<td>Estimated impact of tax adjustments</td>
<td>(0.71)</td>
<td>(0.73)</td>
</tr>
</tbody>
</table>

Target non-GAAP earnings per share

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shares used in non-GAAP calculation (midpoint of target range)</td>
<td>154,500</td>
<td>154,500</td>
</tr>
</tbody>
</table>

ASC 606
Range for Fiscal Year
October 31, 2019 (2)

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target GAAP earnings per share</td>
<td>$2.85</td>
<td>$3.27</td>
</tr>
<tr>
<td>Adjustments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated impact of amortization of intangible assets</td>
<td>0.67</td>
<td>0.63</td>
</tr>
<tr>
<td>Estimated impact of stock compensation</td>
<td>1.04</td>
<td>1.00</td>
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<tr>
<td>Acquisition-related costs</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Estimated impact of restructuring</td>
<td>0.39</td>
<td>0.23</td>
</tr>
<tr>
<td>Legal matters</td>
<td>(0.12)</td>
<td>(0.12)</td>
</tr>
<tr>
<td>Tax settlement</td>
<td>0.11</td>
<td>0.11</td>
</tr>
<tr>
<td>Estimated impact of tax adjustments</td>
<td>(0.71)</td>
<td>(0.73)</td>
</tr>
<tr>
<td>Target non-GAAP earnings per share</td>
<td>$4.24</td>
<td>$4.40</td>
</tr>
</tbody>
</table>

(1) Synopsys adopted new revenue recognition guidance ASC 606, Revenue from Contracts with Customers, at the beginning of fiscal 2019 under the modified retrospective method.

(2) Synopsys’ fiscal year will end on November 2, 2019. For presentation purposes, we refer to the closest calendar month end.

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 May 22, 2019.
## GAAP to Non-GAAP Reconciliation

### Earnings Per Share – Full Fiscal Year 2019 ASC 605 Comparative Metrics \(^{(1)}\)

**Alignment of Core Business Operations**

**ASC 605**

<table>
<thead>
<tr>
<th>Range for Fiscal Year</th>
<th>October 31, 2019 (^{(2)})</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low</strong></td>
<td><strong>High</strong></td>
</tr>
<tr>
<td>$ 3.05</td>
<td>$ 3.47</td>
</tr>
</tbody>
</table>

**Adjustments:**

- Estimated impact of amortization of intangible assets: $0.67 - $0.63
- Estimated impact of stock compensation: $1.04 - $1.00
- Acquisition-related costs: $0.01 - $0.01
- Estimated impact of restructuring: $0.39 - $0.23
- Legal matters: $(0.12) - $(0.12)
- Tax settlement: $0.11 - $0.11
- Estimated impact of tax adjustments: $(0.71) - $(0.73)

**Target non-GAAP earnings per share**

<table>
<thead>
<tr>
<th></th>
<th>$ 4.44</th>
<th>$ 4.60</th>
</tr>
</thead>
</table>

**Shares used in non-GAAP calculation (midpoint of target range)**

- 154,500

---

\(^{(1)}\) Synopsys adopted new revenue recognition guidance ASC 606, Revenue from Contracts with Customers, at the beginning of fiscal 2019 under the modified retrospective method. For comparison purposes, we provide comparative amounts under old revenue guidance ASC 605, Revenue Recognition.

\(^{(2)}\) Synopsys' fiscal year will end on November 2, 2019. For presentation purposes, we refer to the closest calendar month end.

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 May 22, 2019.
## GAAP to Non-GAAP Reconciliation

### Earnings Per Share – Full Fiscal Years 2015 to 2018 Actual Results

<table>
<thead>
<tr>
<th>ASC 605 FY 2015</th>
<th>ASC 605 FY 2016</th>
<th>ASC 605 FY 2017</th>
<th>ASC 605 FY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAAP net income per share</td>
<td>$1.43</td>
<td>$1.73</td>
<td>$0.88</td>
</tr>
<tr>
<td>Adjustments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amortization of intangible assets</td>
<td>0.86</td>
<td>0.84</td>
<td>0.70</td>
</tr>
<tr>
<td>Stock compensation</td>
<td>0.54</td>
<td>0.63</td>
<td>0.70</td>
</tr>
<tr>
<td>Acquisition-related costs</td>
<td>0.10</td>
<td>0.07</td>
<td>0.06</td>
</tr>
<tr>
<td>Inventory fair value adjustment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restructuring</td>
<td>0.10</td>
<td>0.06</td>
<td>0.24</td>
</tr>
<tr>
<td>Legal and tax matters</td>
<td>(0.04)</td>
<td></td>
<td>0.05</td>
</tr>
<tr>
<td>Income tax related to transition tax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income tax related to tax rate change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income tax related to tax restructuring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax impact of repatriation</td>
<td></td>
<td></td>
<td>1.07</td>
</tr>
<tr>
<td>Tax adjustments</td>
<td>(0.22)</td>
<td>(0.31)</td>
<td>(0.28)</td>
</tr>
<tr>
<td><strong>Non-GAAP net income per share</strong>&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>$2.77</td>
<td>$3.02</td>
<td>$3.42</td>
</tr>
</tbody>
</table>

<sup>(1)</sup> may not foot due to rounding

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 May 22, 2019.
Thank You