

## Physical AI: Tesla's Endgame

- Tesla is owning the only full stack for real-world autonomy.
- Valuation has decoupled from car sales, trading instead as a venture bet.
- We recommend TSLA80 with a BUY, TP of THB 3.00 (\$480, USD/THB at 31.5).

### Why Physical AI is the True End Game

เราเชื่อว่า Tesla เป็นบริษัทที่มีความพร้อมมากที่สุดในการก้าวขึ้นเป็นผู้นำแห่งยุค Physical AI ในขณะที่ตลาดส่วนใหญ่ยังคงยึดติดอยู่กับแพลตฟอร์มและผู้ช่วยดิจิทัลอัจฉริยะ แต่เป้าหมายสูงสุดที่แท้จริงของ AI คือการมีสติปัญญาที่ถูกรวมเข้าไว้ในโลกแห่งความเป็นจริง ไม่ว่าจะป็นรถยนต์ที่ขับเคลื่อนได้เอง หุ่นยนต์ที่ทำงานได้จริง และเครื่องจักรที่เรียนรู้ผ่านการปฏิบัติงานในสภาพแวดล้อมทางกายภาพ ซึ่ง Tesla ได้ทุ่มพัฒนาโครงสร้างพื้นฐานสำหรับการเปลี่ยนผ่านนี้ไว้เกือบครบถ้วนแล้ว ตั้งแต่ยานยนต์ไร้คนขับ (Robotaxi) ในฐานะโมเดลธุรกิจที่สร้างรายได้ในวงกว้างเป็นลำดับแรก หุ่นยนต์ฮิวแมนนอยด์ (Optimus) ที่เป็นแนวทางการขยายตัวธุรกิจในระยะยาว การผลักดันการฝึกฝน AI แบบครบวงจรภายในระบบของ Musk (xAI) และที่สำคัญที่สุดคือ กลุ่มยานพาหนะทั่วโลกที่ทำหน้าที่เก็บข้อมูลจากโลกจริงอย่างต่อเนื่อง เพื่อสะสมการเรียนรู้ให้ก้าวหน้ายิ่งขึ้นไปเรื่อยๆ

### The Autonomy Call Option

นี่คือเหตุผลที่หุ้นของ Tesla ถูกซื้อขายในลักษณะที่ลดทอนความเป็นผู้ผลิตรถยนต์ไฟฟ้าลงเรื่อยๆ แต่กลับดูเหมือนเป็น 'การลงทุนแบบเสถียร' ในตลาดสาธารณะต่อการทำให้ระบบขับเคลื่อนอัตโนมัติกลายเป็นธุรกิจจริง แม้ว่าดัชนีชี้วัดแบบค่ายรถยนต์ดั้งเดิมจะยังมีความสำคัญ แต่สิ่งเหล่านั้นไม่ได้เป็นตัวกำหนดราคาหุ้นอย่างสมบูรณ์อีกต่อไป เพราะตลาดกำลังให้มูลค่ากับรถยนต์ขับเคลื่อนอัตโนมัติในรูปแบบใหม่ นั่นคือการสร้างรายได้ที่ขับเคลื่อนด้วยซอฟต์แวร์และระบบอัตโนมัติที่สามารถขยายตัวได้เหนือกว่าการเติบโตของยอดขายรถยนต์เพียงอย่างเดียว กล่าวอีกนัยหนึ่งคือนักลงทุนไม่ได้แค่ซื้อยอดส่งมอบรถยนต์ แต่พวกเขากำลังซื้อความน่าจะเป็นของอนาคตที่การขับเคลื่อนจะกลายเป็นรูปแบบการบริการ และ AI จะกลายเป็นตัวผลักดันอัตรากำไรหลักของบริษัท

### The Robotaxi Reality Check: Waymo, China, and the Race for Scale

ตลาด Robotaxi ในปัจจุบันนี้เกิดขึ้นจริงแล้ว และ Tesla ก็ไม่ใช่ผู้นำในขณะนี้ โดยในสหรัฐอเมริกา Waymo ได้สร้างบทพิสูจน์ที่ชัดเจนที่สุดของการทำธุรกิจเชิงพาณิชย์ ด้วยการดำเนินงานแบบไร้คนขับที่เห็นผลเป็นรูปธรรมและมีฐานผู้ใช้งานที่จ่ายค่าบริการเพิ่มมากขึ้นเรื่อยๆ ในขณะเดียวกัน เหล่าผู้เล่นด้านการขับเคลื่อนอัตโนมัติในจีนก็กำลังขยายตัวอย่างรวดเร็วในประเทศตนเองพร้อมกับมองหาเส้นทางขยายธุรกิจไปยังภูมิภาคต่างๆ เช่น ยุโรป ซึ่งถือเป็นการยกระดับการแข่งขันทั้งในด้านความน่าเชื่อถือของเทคโนโลยีและความเร็วในการดำเนินการ ดังนั้น ประเด็นสำคัญในระยะสั้นจึงไม่ใช่คำถามที่ว่า 'Robotaxi จะเกิดขึ้นจริงหรือไม่' แต่คือ 'ใครจะสามารถขยายขอบเขตธุรกิจได้ก่อน โดยที่ยังรักษามาตรฐานความปลอดภัยและผลตอบแทนทางเศรษฐกิจเอาไว้ได้'

### The Hidden Fleet You Can't See

ความได้เปรียบที่เป็นเอกลักษณ์ของ Tesla เข้ามามีบทบาท นั่นคือ "Sleeper Fleet" (กองทัพอแฝง) คือการเปลี่ยนจากโมเดลการขยายธุรกิจแบบเส้นตรงที่คู่แข่งต้องลงทุนซื้อและบริหารจัดการรถเองที่ละคัน มาเป็นการขยายตัวแบบทวีคูณ ผ่านการเปิดใช้งาน "ฐานลูกค้าเดิม" ที่มีอยู่มหาศาลทั่วโลกให้กลายเป็นเครือข่าย Robotaxi กระจายศูนย์พื้นที่ที่ซอฟต์แวร์บรรลุความปลอดภัยขั้นสูงสุดและผ่านกฎระเบียบ ซึ่งจะช่วยลดต้นทุนต่อไมล์ ระยะเวลารอด และขยายพื้นที่บริการได้รวดเร็วกว่าโมเดลที่ต้องใช้เงินทุนมหาศาล (Capital-intensive) อย่างไรก็ตาม ความเสี่ยงสำคัญอยู่ที่ "จังหวะเวลา" เพราะหาก Tesla พัฒนาซอฟต์แวร์ล่าช้า คู่แข่งจะสามารถขยายฐานการดำเนินงานและลดต้นทุนฮาร์ดแวร์จนช่องว่างของความแตกต่างนี้แคบลงเรื่อยๆ

### A Contrarian BUY for the Year of Physical AI

เราแนะนำ "ซื้อ" TSLA80 โดยให้ราคาเป้าหมายที่ 3.00 บาท (เทียบเท่า 480 ดอลลาร์สหรัฐฯ โดยใช้อัตราแลกเปลี่ยน 31.5 บาท/ดอลลาร์) โดยเรามองว่าปี 2026 จะเป็น 'ปีแห่ง Physical AI' ซึ่งเม็ดเงินลงทุนจะหมุนเวียนอย่างรุนแรงเข้าสู่บริษัทที่สามารถเชื่อมต่อช่องว่างระหว่างซอฟต์แวร์และฮาร์ดแวร์ได้สำเร็จ แม้ความเสี่ยงด้านการดำเนินงานยังคงสูง แต่เราเชื่อว่าบรรยากาศตลาดในปัจจุบันเป็นจุดเข้าซื้อส่วนกระแสที่น่าสนใจ โดยเราคาดการณ์ว่าการก้าวกระโดดของระบบ Unsupervised FSD ในปีนี้ จะเป็นปัจจัยบวกสำคัญเป็นตัวเร่งที่บีบให้ตลาดต้องปรับมูลค่าหุ้นใหม่ เพื่อสะท้อนถึงศักยภาพในการผูกขาดตลาดของ Tesla ในอนาคต

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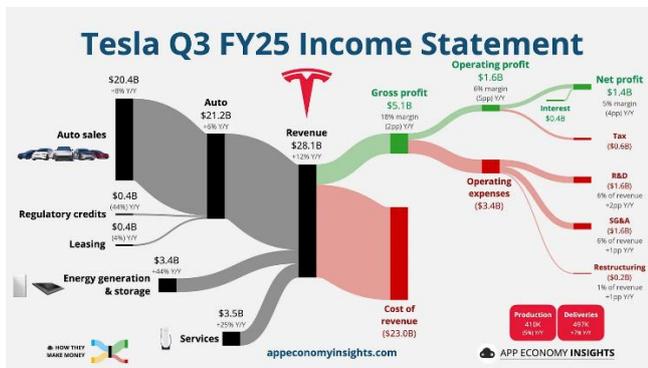
## Why Physical AI is the True End Game

While the current market fixation remains on Large Language Models (LLMs) and chatbots, the true economic potential of artificial intelligence has yet to be realized. The future of AI is not merely digital; it is physical. It is a world where intelligence is not just displayed on a screen, but embodied in robots, manufacturing devices, and autonomous vehicles. This convergence of hardware and software—"Physical AI"—represents the next great secular trend in technology.

Within this framework, we believe **Tesla** is the company best positioned to lead the Physical AI era. Much like **Google** in digital AI—where full-stack ownership spans data, models, infrastructure, and distribution—Tesla has quietly assembled a near-complete stack for real-world intelligence. This includes autonomous vehicles (Robotaxi), humanoid robotics (Optimus), vertically integrated AI training infrastructure (xAI within the wider Musk ecosystem), and massive real-world data generation through its global fleet.

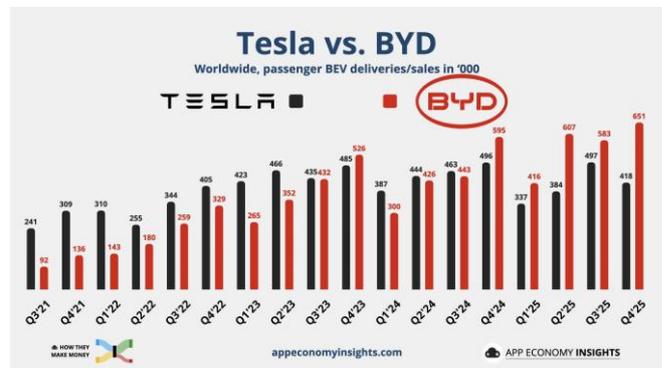
Under the long-term vision of **Elon Musk**, Tesla is not merely an EV manufacturer but a platform for generalized physical intelligence. This vision is undeniably ambitious, and its timeline remains uncertain. However, if Physical AI scales as envisioned—where autonomy, robotics, and machine intelligence converge—Tesla is uniquely positioned as the first mover with both technological depth and real-world deployment leverage. In our view, this optionality is materially underappreciated by the market and forms the foundation of Tesla's long-term investment case.

Exhibit 1: Tesla's 3Q25 Income Statement



Sources: App Economy Insights

Exhibit 2: Tesla vs. BYD, numbers of BEV deliveries



Sources: App Economy Insights

## Fundamentals vs. Optionality

That said, much of this thesis remains **forward-looking** and inherently uncertain. Physical AI is not a guaranteed outcome, and its path could unfold in multiple directions. This uncertainty explains why Tesla continues to polarize investors—and why traditional valuation frameworks struggle to anchor the stock. Many analysts argue that **Tesla** is currently mispriced when judged purely on near-term fundamentals.

The disconnect is evident in recent operating data. Tesla reported **4Q25 vehicle deliveries of 418.2k units**, representing a **-16% q-q and -16% y-y decline**. On a standalone basis, this reflects a business facing cyclical demand pressure, intensifying EV competition, and margin normalization. Under a conventional auto or EV-manufacturer lens, such delivery trends would typically warrant valuation compression.

Yet Tesla's share price has continued to trend upward over the same period. This divergence highlights a critical point: **the market is no longer pricing Tesla as a near-term delivery story**. Instead, investors are increasingly valuing Tesla as a long-duration option on the success of Physical AI—particularly autonomy, Robotaxi, and AI-driven platforms that extend well beyond vehicle sales.

At current valuation levels, investors are effectively paying upfront for future outcomes. They are not buying declining deliveries; they are buying the probability that Tesla's autonomy stack, data advantage, and AI integration ultimately translate into scalable, high-margin businesses. This explains why opinions are sharply divided. Skeptics view the stock as disconnected from fundamentals, while believers see today's price as an entry point into a much larger opportunity set.

In our view, the debate should not center on whether Tesla looks expensive on traditional metrics, but rather on **whether Tesla can successfully commercialize Physical AI**. If it fails, the downside risk is clear. However, if Tesla succeeds—even partially—in scaling autonomy and AI-driven platforms, then **even at current price levels, the long-term runway remains substantial**. The remainder of this report therefore focuses on assessing that probability, starting with Tesla's most immediate and monetizable Physical AI application: **Robotaxi**.

## Robotaxi Race – A Matter of Time and Scale

While Tesla attempts to solve generalized autonomy through a vision-only approach, the competition has not stood still. The landscape in early 2026 is defined by a race between two opposing philosophies: **Tesla's "Simplicity for Future Scale"** versus the **Competitors' "Complexity for Current Scale"**.

### Waymo (subsidiary of Alphabet Inc, GOOG80): The Validator and the Leader

While Tesla has spent the last decade promising "unsupervised" autonomy, Alphabet's Waymo has effectively won the first round of the US market

**Operational Scale:** As of Dec-25, Waymo is not a pilot program; it is a mass-market service. The company is fulfilling **450,000 paid driverless rides per week**, having surpassed 20 million total trips since its inception.

**The Trust Moat:** Waymo has reported materially lower injury-causing and police-reported crash rates vs comparable human benchmarks (85% fewer injury crashes; 57% fewer police-reported crashes in its rider-only analysis). This has created a "trust moat": consumers are already comfortable entering a steering-wheel-free Waymo, setting a high bar for Tesla to clear.

Exhibit 3: Waymo robotaxi service areas



Sources: CNBC

Exhibit 4: Waymo planned robotaxi services



Sources: CNBC

### The Hidden Threat: The Chinese "Invasion" of Europe

A critical development often overlooked by US-centric investors is the aggressive expansion of Chinese firms into neutral territories like Europe and the Middle East.

**Baidu (Apollo Go) & Pony.ai:** These firms are not waiting for Tesla. In 2026, Baidu is entering the **London** market through partnerships with Uber and Lyft, while Pony.ai has partnered with Bolt to deploy in the EU.

**Unit Economics:** Baidu's "Apollo Go" service is already profitable on a per-vehicle basis in cities like Wuhan. Their **RT6 robotaxi** is mass-produced at a cost of approximately **\$30,000**—the exact price point Tesla targets for the Cybercab, but available *today*.

**Pony.ai's IPO War Chest:** Following its IPO and \$800M capital raise in late 2025, Pony.ai is targeting a fleet size of **3,000 robotaxis by the end of 2026**, aggressively expanding into the Middle East and Europe.

Exhibit 5: Baidu's Apollo Go planned robotaxi service



Sources: CNBC

Exhibit 6: Pony.ai 2025 overview



Sources: Pony.ai

### Why Time is Against Tesla?

Tesla's central economic thesis has historically been that "Lidar is a crutch" and too expensive for mass scale. Elon Musk bet that by the time competitors lowered hardware costs, Tesla would have solved vision-only AI. That bet is now under severe pressure due to the collapsing cost curve of hardware.

**The Cost Curve:** In 2020, a high-fidelity Lidar sensor cost ~\$75,000. By 2026, solid-state Lidar units have dropped to **sub-\$1,000**.

This price collapse effectively neutralizes Tesla's "cost advantage" argument. If a competitor can build a Lidar-equipped robotaxi (with superior safety redundancy) for \$35,000, Tesla's \$30,000 camera-only vehicle loses its decisive edge. In this scenario, the extra safety redundancy of Lidar becomes a feature, not a bug, making Tesla's "vision-only" approach appear reckless rather than thrifty.

However, Tesla has chosen not to participate in this race. Recognizing that it cannot beat Waymo's safety record or regulatory lead in the short-term using the same methods, Tesla has opted to change the rules of the game entirely. Instead of chasing perfect safety through expensive sensors, Tesla is betting on a radical **"End-to-End" AI strategy** and a **"Sleepier Fleet" of millions of cars**.

## The "Sleeper Fleet" and the Cybercab

Recognizing that it cannot win a hardware-centric war against Waymo's established safety record and the plunging costs of Chinese Lidar, Tesla has adopted a strategy of asymmetric warfare. Instead of competing on sensor redundancy, Tesla is betting its entire future on two interconnected pillars: a radical "End-to-End" AI architecture and the activation of a dormant asset that no competitor possesses—the "Sleeper Fleet".

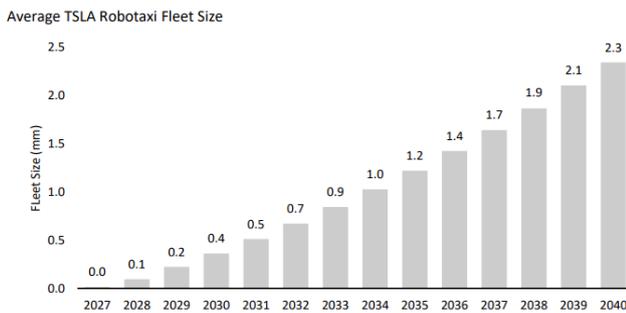
### The Nuclear Option of Scale

The single most definitive differentiator in Tesla's valuation model is its path to scale. Competitors like Waymo and Baidu face a "linear constraint": to expand their network, they must manufacture, outfit, and deploy each individual vehicle, a capital-intensive process that grows slowly. Tesla, conversely, operates under a "geometric" growth model.

As of early 2026, Tesla has over **7 million** hardware-capable vehicles on global roads. While these cars currently operate as personal vehicles, they represent a "Sleeper Fleet" of potential robotaxis.

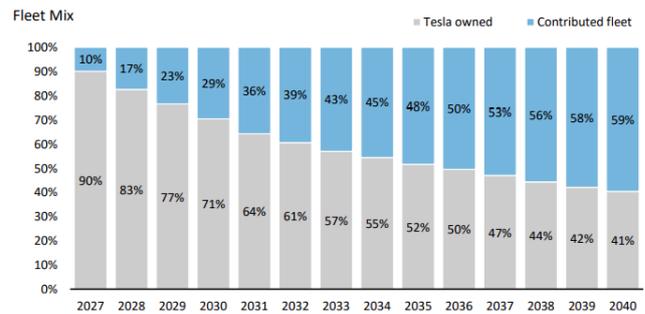
**Data Dominance:** This fleet also serves as a massive data vacuum. While Waymo learns from thousands of cars, Tesla's fleet feeds its training cluster with billions of miles of real-world edge cases—weather, erratic human behavior, and rare accidents—creating a "Data Flywheel" that theoretically improves the AI faster than any competitor can match.

**Exhibit 7: Robotaxi Fleet Size estimates**



Sources: UBS estimates

**Exhibit 8: Fleet Mix estimates**



Sources: UBS estimates

### The Cybercab: Economics of the "Unboxed" Process

If the Sleeper Fleet provides the scale, the Cybercab provides the margin. Scheduled for volume production in April 2026, this dedicated robotaxi is designed to strip away the "human tax" of traditional auto manufacturing.

### Exhibit 9: Tesla Cybercab prototype



Sources: Wikipedia

### Exhibit 10: Cybercab prototype's Interior



Sources: Shop4Tesla

**The Unboxed Manufacturing Model:** unlike the traditional linear assembly line (which is limited by the slowest station), the Cybercab uses a modular 'Unboxed' process. Sections of the car are assembled in parallel and snapped together at the end. This reduces factory footprint by ~40% and allows for higher automation density, directly enabling the sub-\$30k cost target.

**The Wireless Imperative:** A critical operational innovation is the elimination of the charge port in favor of high-efficiency inductive charging. This is not merely an aesthetic choice but an operational necessity; for a robotaxi network to be truly autonomous, vehicles must be able to refuel themselves without human handlers, significantly reducing the "ground operations" cost that currently burdens Waymo's depots.

**Cost Leadership:** Tesla targets a manufacturing cost of under \$30,000 for the Cybercab. If achieved, this would allow Tesla to operate at a cost-per-mile of ~\$0.20–\$0.30, undercutting not just Uber and Lyft, but potentially competing with public bus transit on price.

## The Binary Bet

As of early 2026, Tesla sits precariously in the "Valley of Death" between two S-curves: its core automotive business is maturing and showing signs of contraction, while its AI-driven future has not yet fully materialized. The decline in 4Q25 deliveries to 418,200 vehicles (-16% y-y) confirms that Tesla can no longer be valued solely as a car manufacturer. Instead, the stock has transformed into a high-stakes call option on the success of Physical AI.

### The Case for the Believer

For investors who subscribe to Elon Musk's vision, the current volatility represents a rare accumulation opportunity. The bullish thesis rests on the "Sleeper Fleet"—millions of hardware-ready vehicles that, upon the validation of Unsupervised FSD, could instantly create the world's largest decentralized transport network.

**The Moat:** If Tesla solves generalized "End-to-End" autonomy without relying on HD maps or Lidar, it creates a software monopoly with near-zero marginal costs and infinite scalability.

**Verdict:** Investors buying today are not paying for car sales; they are paying for the probability that Tesla becomes the standard-bearer for the physical automation of the global economy. If successful, the current valuation will appear deceptively cheap in hindsight.

### The Case for the Skeptic

Conversely, the risks have never been more tangible. The competitive landscape has shifted fundamentally: Waymo has proven that Lidar-based autonomy is safe

and commercially viable *today*, while Chinese competitors have proven that Lidar hardware is cheap enough for mass adoption.

**The Threat:** If the cost of Lidar sensors continues to plummet (sub-\$500 in 2026), Tesla's refusal to use them transitions from a cost-saving brilliance to a stubborn liability. If regulators in the EU or California mandate sensor redundancy for safety, Tesla's "vision-only" fleet could be legislated out of the most profitable markets.

**Verdict:** If Tesla fails to bridge the gap between "Supervised" and "Unsupervised" FSD before competitors reach global scale, the stock faces a severe correction. Without the AI premium, Tesla would be repriced as a traditional auto manufacturer facing shrinking margins—a scenario that implies significant downside from current levels

#### 2026 Catalysts: What to Watch.

**1H 2026:** Launch of "Unsupervised" FSD pilot in Texas (removing the safety driver).

**April 2026:** Start of Cybercab volume production.

**Mid-2026:** Potential regulatory approval for "Eyes-off" driving in California/the EU.

## Our Thought

**A Venture Bet in Public Markets** Ultimately, owning Tesla in 2026 requires a suspension of traditional valuation discipline in favor of venture-capital logic. The thesis is no longer about selling cars; it is a binary wager on whether the "General Solution" of AI (Vision) can overtake the "Specific Solution" of sensors (Lidar) before the market loses patience.

We view the current volatility not as a signal to exit, but as the cost of admission for the highest-convexity option in the market. If you believe the future of AI is physical, Tesla is the only vehicle to play that theme at scale. However, the "safety moat" of Waymo and the "speed moat" of China serve as a loud warning: the winner of this race is far from decided

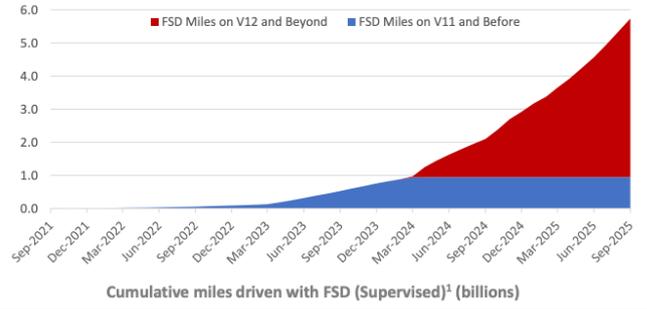
We recommend TSLA80 with a **BUY** rating and a **TP of THB 3.00 (equivalent to \$480, based on USD/THB at 31.5)**. We view 2026 as the "Year of Physical AI," where capital aggressively rotates toward companies bridging the software-hardware gap. While execution risks remain high, we view current sentiment as a contrarian entry point. We expect a breakthrough in Unsupervised FSD this year to serve as the catalyst that forces a market-wide repricing of Tesla's monopoly potential.

### Exhibit 11: Tesla market share



Sources: TSLA

### Exhibit 12: Cumulative miles driven with FSD



Sources: TSLA

## GENERAL DISCLAIMER

### Analyst Certification

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## RECOMMENDATION STRUCTURE

### Stock Recommendations

Stock ratings are based on absolute upside or downside, which we define as  $(\text{target price}^* - \text{current price}) / \text{current price}$ .

- BUY:** Expected return of 10% or more over the next 12 months.  
**HOLD:** Expected return between -10% and 10% over the next 12 months.  
**REDUCE:** Expected return of -10% or worse over the next 12 months.

Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

\* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

### Sector Recommendations

- Overweight:** The industry is expected to outperform the relevant primary market index over the next 12 months.  
**Neutral:** The industry is expected to perform in line with the relevant primary market index over the next 12 months.  
**Underweight:** The industry is expected to underperform the relevant primary market index over the next 12 months.

### Country (Strategy) Recommendations

**Overweight:** Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

**Neutral:** Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

**Underweight:** Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.