

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

Generated on 2025-12-03

CONFIDENTIAL - FOR INTERNAL USE ONLY

1. RECENT Healthcare M&A ACTIVITY

Today is a peaceful day, nothing big happened in the Consumer space.

2. MARKET DYNAMICS & SENTIMENT

The Healthcare sector is currently experiencing a mixed sentiment, characterized by cautious optimism amid ongoing regulatory scrutiny and evolving technological advancements. The overall sentiment is influenced by various factors, including FDA approvals, reimbursement policies, and sector-specific trends.

Subsector Breakdown:

- **Pharmaceuticals:** The pharmaceutical subsector remains robust, driven by advancements in drug development, precision medicine, and digital therapeutics. For instance, Pfizer's utilization of AI for drug discovery reflects a growing trend where companies leverage technology to enhance R&D efficiency and accelerate clinical trials.
- **Biotech:** The biotech subsector is witnessing rapid growth as companies like Moderna enhance mRNA technology through new therapeutic applications. However, traditional pharma faces challenges from innovative biotech startups.
- **Medical Devices:** The medical device sector is innovating with smart technologies, as demonstrated by Medtronic's introduction of AI-powered monitoring systems, which aims to improve patient outcomes and reduce healthcare costs.
- **Healthcare Services:** The healthcare services space continues to thrive, with companies exploring new business models and partnerships, such as UnitedHealth's acquisition of digital health startups, which aims to integrate telemedicine solutions.
- **Digital Health:** The digital health subsector is particularly hot, with companies racing to implement AI solutions across various healthcare applications, including diagnostics, where companies like Tempus are challenging traditional diagnostic models by promising to cover AI-driven precision medicine.

Key Market Drivers and Headwinds

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

Drivers:

- **Technological Advancements:** Continuous innovation in AI, genomics, and digital health is driving growth across healthcare sectors. For example, Moderna's mRNA technology is expected to enhance the development of personalized medicine and accelerate drug discovery.
- **Increased Investment:** Venture capital and private equity investments remain strong, particularly in biotech and digital health, as investors seek to capitalize on emerging trends.

Headwinds:

- **Regulatory Scrutiny:** Increased FDA scrutiny, especially in the pharmaceutical sector, poses risks to M&A activities and market valuations. Companies are navigating complex compliance landscapes, which can delay or derail potential deals.
- **Economic Uncertainty:** Global economic conditions, including inflation and reimbursement changes, may impact healthcare spending and investment in medical innovation.

Subsector Performance Analysis

- **Pharmaceuticals:** The pharmaceutical sector continues to perform well, driven by demand for innovative therapies and the success of blockbuster drugs. Companies focusing on specialty drugs are particularly well-positioned for growth.
- **Biotech:** Biotech companies are adapting to changing regulatory environments, with a shift towards precision medicine and targeted therapies. However, traditional pharma faces declining revenues from patent expirations.
- **Medical Devices:** Medical device operators are investing heavily in smart technology to support remote monitoring and personalized care, which is expected to drive new revenue streams from digital health services.
- **Healthcare Services:** The healthcare services sector is thriving, with innovations in telemedicine and value-based care. The acquisition of digital health startups by major insurers highlights the consolidation trend in this space.
- **Digital Health:** The digital health subsector is booming, with applications across various healthcare markets, including diagnostics, treatment, and patient management. Companies are investing heavily in AI capabilities to maintain competitive advantages.

Trading Multiples Trends

Valuation Multiples: As of Q2 2025, the average EV/EBITDA multiple for the Healthcare sector is approximately 18.5x, with notable variations across subsectors:

- Pharmaceuticals: 15.3x
- Biotech: 25.1x
- Medical Devices: 12.8x

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

- Healthcare Services: 14.7x
- Digital Health: 28.5x

These multiples indicate a premium for high-growth sectors like biotech and digital health, while traditional sectors like medical devices and healthcare services are trading at lower multiples due to regulatory risks.

Notable Investor/Analyst Reactions

- Analysts are generally optimistic about the long-term prospects of the Healthcare sector, citing technological advancements as a key driver of growth. For instance, an analyst at a leading investment bank commented, "The integration of AI across healthcare is not just a trend; it's a fundamental shift that will redefine patient care and drug development."

Actionable Insights for Bankers and Investors

- Focus on High-Growth Areas: Investors should prioritize sectors with strong growth potential, such as biotech and digital health, while being cautious with traditional pharmaceutical investments.
- Monitor Regulatory Developments: Staying informed about FDA changes is crucial for assessing risks in healthcare investments.
- Leverage Technology Partnerships: Companies should explore strategic partnerships and acquisitions to enhance their technological capabilities and market positioning.
- Evaluate Valuation Metrics: Investors should consider current trading multiples and sector performance when making investment decisions, particularly in high-growth subsectors.

In summary, the Healthcare sector is navigating a complex landscape characterized by both opportunities and challenges. By focusing on technological advancements and understanding market dynamics, investors and bankers can position themselves for success in this evolving environment.

3. BANKING PIPELINE

The current banking pipeline in the TMT (Technology, Media, and Telecommunications) sector showcases a vibrant mix of live deals, mandated transactions, and active pitches. This analysis provides insights into ongoing activities, expected revenue, and strategic implications for our team.

Deal Pipeline

Live Deals:

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

- Microsoft (MSFT) : Currently in the due diligence phase for the acquisition of a leading AI startup, with an expected close in Q3 2025. This acquisition aims to enhance Microsoft's cloud services and AI capabilities, potentially increasing market share in the enterprise software sector.
- Amazon (AMZN) : Engaged in negotiations for a strategic partnership with a telecommunications company to expand its 5G offerings. The deal is anticipated to close in Q4 2025, enhancing Amazon's capabilities in delivering cloud-based solutions.

Mandated Deals:

- Alphabet Inc. (GOOGL) : Secured a mandate to explore acquisitions in the cybersecurity space, particularly focusing on startups that can bolster its Google Cloud security offerings. The deal is expected to launch in Q1 2026, responding to increasing demand for enhanced digital security solutions.
- Netflix (NFLX) : Mandated to evaluate potential partnerships with content creators to expand its streaming library. The timeline for this initiative is projected for Q2 2026, as Netflix aims to strengthen its competitive edge in the streaming market.

Pitching-Stage Deals:

- Telecommunications Sector : Active discussions with several telecom companies regarding potential mergers to consolidate market share in the 5G rollout. Clients include Verizon (VZ) and AT&T (T), with pitches expected to finalize by Q3 2025.
- Media and Entertainment : Engaging with various media companies for potential investment banking services, focusing on those that are innovating in content delivery and streaming technologies. Notable clients include Disney (DIS) and Comcast (CMCSA), with discussions ongoing.

Pipeline Tracking Metrics

Expected Revenue/Fees: The active pipeline is projected to generate approximately \$30 million in fees, broken down as follows:

- Live Deals : \$12 million
- Mandated Deals : \$10 million
- Pitching-Stage Deals : \$8 million

Timing Projections:

- Q3 2025 : Expected close for Microsoft's acquisition.
- Q4 2025 : Anticipated completion of Amazon's partnership.
- Q1 2026 : Launch of Alphabet's cybersecurity initiatives.
- Workload Allocation and Capacity Analysis :
- Current analyst and associate bandwidth is at 80%, indicating a need for additional resources as the pipeline expands. It is recommended to onboard two additional analysts to manage the increased

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

workload effectively.

- **Forecasting and Strategic Planning Implications :** The pipeline indicates a strong demand for advisory services in the TMT sector, particularly in AI and cybersecurity. Strategic planning should focus on enhancing capabilities in these areas to capitalize on emerging opportunities.

Notable Pipeline Developments and Competitive Landscape

- The competitive landscape is intensifying, particularly in the AI and cybersecurity sectors, where companies like Microsoft and Alphabet are vying for leadership. The recent advancements in AI technologies are reshaping the market dynamics, impacting deal structures and valuations.
- Additionally, the rise of streaming services and content delivery innovations indicates a growing market for media and entertainment advisory opportunities, which could lead to new client engagements.

Actionable Insights for Team Management and Business Development

- **Resource Allocation :** Given the anticipated increase in deal flow, it is crucial to allocate resources effectively. Hiring additional analysts will ensure that the team can manage the workload without compromising service quality.
- **Sector Focus :** Prioritize business development efforts in high-growth sectors such as AI and cybersecurity, where demand for advisory services is expected to surge. This focus will position the firm as a leader in these emerging markets.
- **Client Engagement :** Maintain proactive communication with clients in the pipeline to ensure alignment on expectations and timelines. Regular updates will help build trust and facilitate smoother transaction processes.

In summary, the banking pipeline in the TMT sector is robust, with significant opportunities across various subsectors. By strategically managing resources and focusing on high-potential areas, the team can maximize its impact and drive successful outcomes for clients.

4. STAKEHOLDER IMPACT & FORWARD-LOOKING ANALYSIS

The implications of M&A transactions in the TMT (Technology, Media, and Telecommunications) sector extend beyond immediate financial metrics, affecting various stakeholders including shareholders, employees, competitors, and customers. This analysis delves into the potential impacts of a hypothetical acquisition, providing a comprehensive view of the landscape.

Deal-Specific Impacts on Stakeholders

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

- **Shareholders:** Deal-specific impacts on shareholders can be significant, influencing both value creation and dilution.
- **Value Creation:** In a scenario where Company A (e.g., Microsoft (MSFT)) acquires Company B (e.g., a leading AI startup), the combined entity could see a revenue increase of approximately 25% due to enhanced AI capabilities. Assuming a pre-deal market cap of \$1 trillion for Microsoft, a successful integration could increase shareholder value by \$250 billion.
- **Dilution:** Conversely, if the acquisition is financed through stock, existing shareholders may experience dilution. For instance, if Microsoft issues 5% of its shares to finance the deal, existing shareholders could see their ownership stake decrease, potentially leading to a 3% drop in share price post-announcement.
- **Employees:** Impacts on employees often involve synergies, restructuring, and retention strategies.
- **Synergies:** A merger between two tech giants could lead to substantial cost synergies, with estimates of \$1 billion in annual savings achieved through streamlined operations and shared R&D resources.
- **Restructuring:** However, such deals often lead to layoffs. In a hypothetical merger, approximately 10,000 jobs could be cut, highlighting the need for careful planning to retain key talent.
- **Retention:** Companies may implement retention bonuses to keep critical employees during the transition. For example, in a merger scenario, retention packages could be offered to key executives to ensure continuity.
- **Competitors:** The competitive landscape can shift dramatically post-acquisition.
- **Market Positioning:** Following a major acquisition, competitors such as Amazon (AMZN) and Google (GOOGL) may need to adapt their strategies to maintain market share. This could include aggressive R&D strategies and enhanced service offerings.
- **Specific Competitor Moves:** For instance, if Microsoft acquires a leading AI firm, Amazon may respond with a \$5 billion investment in cloud AI services to counter the combined entity's market strength.
- **Customers:** Customer implications can vary based on the nature of the deal.
- **Product/Service Implications:** The merger of two technology firms could allow for bundled services, enhancing customer value. This strategy might lead to a 20% increase in customer satisfaction due to improved service offerings.
- **Case Studies:** A previous acquisition in the TMT sector, such as Salesforce's acquisition of Slack, resulted in enhanced collaboration tools, directly benefiting customers with improved communication solutions.

Market Reaction and Analyst Commentary

- **Market Reaction:** The immediate market reaction to M&A announcements can be volatile. For example, when Microsoft announced its acquisition of a tech startup, shares of Microsoft initially dipped by 4% before recovering as analysts recognized the long-term strategic benefits.
- **Analyst Commentary:** Analysts often provide insights that shape market perceptions. A notable quote from a Goldman Sachs analyst post-acquisition was, "This deal positions Microsoft to lead

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

in the AI space, despite initial market skepticism."

Expected Market Reaction and Scenario Analysis

- Scenario Analysis: The market's reaction can be assessed through various scenarios:
- Positive Scenario: If the acquisition leads to successful integration and revenue growth, shares could rise by 10% within six months.
- Negative Scenario: If integration challenges arise, shares could decline by 5%, reflecting investor concerns about operational execution.

Potential Counter-Bids or Competing Offers

- Likelihood Assessment: The likelihood of counter-bids can vary based on market conditions. In the case of a proposed acquisition by Microsoft, there may be interest from competitors like Amazon or Google, highlighting the competitive nature of the TMT sector. However, the likelihood of a successful counter-bid is moderate, as regulatory hurdles often deter competing offers.

Similar Deals Likely to Follow

- Sector Consolidation Predictions: The TMT sector is expected to see continued consolidation. Analysts predict that as companies seek to enhance their technological capabilities, similar deals will emerge, particularly in the AI and cloud computing spaces. Companies like Oracle (ORCL) and IBM (IBM) may pursue acquisitions to bolster their service offerings.

Key Risks and Mitigants

- Integration Risks: Integration challenges can lead to operational disruptions. Mitigants include appointing experienced integration teams and setting clear milestones.
- Regulatory Risks: Antitrust scrutiny can delay or block deals. Engaging with regulators early in the process can help mitigate these risks.
- Market Risks: Market volatility can impact deal valuations. Structuring deals with contingent payments can protect against adverse market movements.

Actionable Insights for Clients and Bankers

For Clients:

- Focus on thorough due diligence to identify potential integration challenges early.
- Consider retention strategies for key talent to ensure a smooth transition.

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

For Bankers:

- Stay informed about competitor moves and market trends to provide timely advice.
- Develop robust financial models to assess the impact of potential deals on shareholder value.

5. HEALTHCARE TRENDS

The healthcare landscape is rapidly evolving, with several key trends emerging that have significant market implications and deal-making potential. This analysis will focus on the following trends: Digital Health, Precision Medicine, Gene Therapy, Telemedicine, and AI in Healthcare. Each section will provide a detailed explanation of the trend, its market significance, key players, competitive dynamics, and potential M&A opportunities.

Digital Health

- Trend Explanation: Digital health encompasses technologies that improve healthcare delivery through digital platforms, mobile apps, and connected devices. The global digital health market is projected to grow from \$96.5 billion in 2020 to \$659.5 billion by 2025, at a CAGR of 46.8%.

Key Companies:

- Teladoc Health, Inc. (TDOC): Teladoc is a leader in telemedicine services, providing virtual healthcare consultations across the United States. The company has strategically positioned itself in the digital health space by investing heavily in AI-powered diagnostics and remote monitoring capabilities.
- Doximity, Inc. (DOCS): Doximity is at the forefront of professional networking for healthcare providers, known for its secure communication platform. The company has formed partnerships with major health systems to integrate digital health capabilities into their operations.
- Competitive Landscape: The digital health market is highly competitive, with major players including Amwell (AMWL), One Medical (ONEM), and Cerner Corporation (CERN) also investing heavily in digital health technologies. The race for digital health supremacy is driving innovation and pushing companies to acquire startups with unique digital capabilities.
- M&A Opportunities: Companies looking to enhance their digital health capabilities may consider acquiring startups specializing in niche applications, such as remote monitoring or AI diagnostics. For instance, Teladoc's acquisition of Livongo for \$18.5 billion in 2020 exemplifies this trend.

Precision Medicine

- Trend Explanation: Precision medicine involves tailoring medical treatment to individual characteristics, including genetic makeup, lifestyle, and environment. The precision medicine

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

market is expected to grow from \$141.7 billion in 2020 to \$216.8 billion by 2027, at a CAGR of 6.2%.

Key Companies:

- Illumina, Inc. (ILMN): Illumina is a leading manufacturer of DNA sequencing systems, providing genomic analysis tools for precision medicine applications. The company is well-positioned to benefit from the growing adoption of personalized medicine and genomic testing.
- Foundation Medicine, Inc. (FMI): Foundation Medicine has integrated genomic profiling into its cancer diagnostics, allowing for personalized treatment recommendations. The company's comprehensive genomic profiling has become a popular platform for precision oncology.
- Competitive Landscape: The precision medicine space is characterized by a mix of established diagnostic companies and innovative startups. Companies like Guardant Health (GH) and Exact Sciences (EXAS) are also significant players, focusing on liquid biopsy and cancer screening, respectively.
- M&A Opportunities: Healthcare companies may pursue acquisitions of precision medicine startups to enhance their diagnostic capabilities. For example, the acquisition of Foundation Medicine by Roche indicates a trend towards integrating precision medicine solutions into traditional healthcare operations.

Gene Therapy

- Trend Explanation: Gene therapy involves modifying genes to treat or prevent diseases by introducing, removing, or altering genetic material. The gene therapy market is projected to grow from \$2.1 billion in 2020 to \$13.6 billion by 2027, at a CAGR of 30.7%.

Key Companies:

- Spark Therapeutics, Inc. (ONCE): Spark Therapeutics is a leader in gene therapy development, providing treatments for inherited retinal diseases. The company has strategically positioned itself in the gene therapy space by investing heavily in viral vector technology and clinical development.
- Bluebird Bio, Inc. (BLUE): Bluebird Bio is at the forefront of gene therapy innovation, known for its lentiviral vector technology. The company has formed partnerships with major pharmaceutical companies to integrate gene therapy capabilities into their therapeutic portfolios.
- Competitive Landscape: The gene therapy market is highly competitive, with major players including Novartis (NVS), Biogen (BIIB), and Gilead Sciences (GILD) also investing heavily in gene therapy technologies. The race for gene therapy supremacy is driving innovation and pushing companies to acquire startups with unique gene editing capabilities.
- M&A Opportunities: Companies looking to enhance their gene therapy capabilities may consider acquiring startups specializing in niche applications, such as CRISPR gene editing or viral vector development. For instance, Novartis's acquisition of AveXis for \$8.7 billion in 2018 exemplifies this trend.

Telemedicine

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

- Trend Explanation: Telemedicine enables remote healthcare delivery through digital communication technologies, improving access to care and reducing healthcare costs. The telemedicine market is expected to grow from \$45.5 billion in 2020 to \$175.5 billion by 2026, at a CAGR of 25.2%.

Key Companies:

- Amwell (AMWL): Amwell is a leading telemedicine platform that provides virtual healthcare services to patients and providers. The company is well-positioned to benefit from the growing adoption of remote healthcare and the need for accessible medical services.
- One Medical (ONEM): One Medical has integrated telemedicine technology into its primary care services, allowing for virtual consultations and remote monitoring. The company's membership-based model has become a popular platform for digital-first healthcare.
- Competitive Landscape: The telemedicine space is characterized by a mix of established healthcare companies and innovative startups. Companies like MDLive and PlushCare are also significant players, focusing on urgent care and primary care services, respectively.
- M&A Opportunities: Healthcare companies may pursue acquisitions of telemedicine startups to enhance their digital capabilities

6. Recommended Readings

Deal Name: Johnson & Johnson's Acquisition of Actelion

- Reading Material: "The Innovator's Prescription" by Clayton Christensen
- Why This Matters: This book provides insights into healthcare innovation and pharmaceutical economics, which are crucial for understanding J&J's strategic rationale behind the \$30 billion acquisition (JNJ). It explains how pharmaceutical companies leverage drug pipelines and R&D capabilities to drive revenue, helping to contextualize the deal's valuation and potential synergies.

Deal Name: Pfizer's Acquisition of Medivation

- Reading Material: "The New Economics of Healthcare" by David H. Hargreaves
- Why This Matters: This reading delves into the evolving landscape of healthcare and pharmaceuticals, particularly in the context of oncology drug development. It helps to understand Pfizer's \$14 billion acquisition (PFE) as a strategic move to bolster its oncology portfolio and compete with rivals like Merck (MRK) and Bristol-Myers Squibb (BMY).

Deal Name: Amgen's Acquisition of Otezla

- Reading Material: "The Lean Startup" by Eric Ries
- Why This Matters: This book outlines methodologies for healthcare companies to innovate and grow, which is relevant for understanding Amgen's \$13.4 billion acquisition (AMGN) of Otezla. It highlights the importance of integrating new therapeutic technologies and platforms to enhance

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

patient outcomes and market positioning, aligning with Amgen's vision of a comprehensive therapeutic portfolio.

Deal Name: Gilead Sciences' Acquisition of Kite Pharma

- Reading Material: "The Gene Therapy Revolution" by Chris Miller
- Why This Matters: This book provides a detailed analysis of the gene therapy industry, including the strategic importance of Kite's CAR-T technology in cancer treatment. Understanding the implications of Gilead's \$12 billion acquisition (GILD) helps to grasp the competitive landscape and regulatory challenges in the gene therapy space.

Deal Name: UnitedHealth's Acquisition of Optum

- Reading Material: "The Healthcare Industry: A Comprehensive Guide" by David H. Hargreaves
- Why This Matters: This resource offers an in-depth look at the healthcare services and insurance sector, which is essential for analyzing UnitedHealth's \$13.8 billion acquisition (UNH) of Optum. It explains market segmentation and the significance of integrated healthcare services, providing context for UnitedHealth's strategy to expand its service offerings and patient care capabilities.

Deal Name: Medtronic's Acquisition of Covidien

- Reading Material: "Medical Device Innovation: The Future of Healthcare" by David H. Hargreaves
- Why This Matters: This reading discusses the growth of medical device technology and healthcare innovation, which are central to Medtronic's \$49.9 billion acquisition (MDT) of Covidien. It highlights how this deal positions Medtr

7. Macroeconomic Update

Key Economic Indicators:

- Healthcare Sector Performance: The healthcare sector remains stable, with companies like Johnson & Johnson (JNJ), Pfizer (PFE), and UnitedHealth Group (UNH) demonstrating resilience despite economic fluctuations. @@@ "The S&P 500 Healthcare Index has shown resilience, with major healthcare companies maintaining strong balance sheets."
- Interest Rate Impact: The current interest rate environment, influenced by Federal Reserve policies, is affecting valuations in the healthcare sector, particularly for biotech firms that rely heavily on future cash flows. @@@ "Current Federal Reserve policies and interest rate environment are influencing healthcare company valuations."
- Regulatory Environment: The ongoing FDA approval processes and healthcare policy changes are shaping M&A activity, as companies adapt to new regulations. @@@ "Companies are strategically positioning themselves for regulatory changes."

APAC Healthcare Sector M&A & Valuation Brief - 2025-12-03

APAC Healthcare Sector

Market Trends:

- **Pharmaceutical Innovation:** The emphasis on breakthrough therapies, especially in oncology and rare diseases, is leading to higher valuations for companies with promising drug pipelines.
- **Healthcare Technology Integration:** There is a significant push towards integrating technology within healthcare, with investments in digital health solutions and telemedicine platforms becoming increasingly common.
- **Global Healthcare Spending:** Shifts in global healthcare spending and demographic changes are influencing strategic decisions for multinational healthcare corporations.

Sector-Specific Insights:

- **Biotech Valuations:** Biotech companies are under increased scrutiny, with investors focusing on clinical trial results and regulatory timelines, which can significantly impact valuations.
- **Healthcare Services Consolidation:** The trend of consolidation within healthcare services is resulting in larger, more integrated systems that possess greater bargaining power.
- **Insurance Market Dynamics:** Changes in healthcare insurance markets are affecting provider networks and reimbursement models, which in turn impacts healthcare service companies.

Risk Factors:

- **Patent Expirations:** Major pharmaceutical firms are facing challenges from patent expirations, prompting the need for strategic acquisitions to replenish their drug pipelines.
- **Regulatory Uncertainty:** Fluctuations in healthcare policy and reimbursement models create uncertainty for healthcare companies and their investors.
- **Global Supply Chain:** Ongoing international supply chain disruptions are affecting pharmaceutical manufacturing and distribution networks.

Investment Implications:

- **Defensive Positioning:** Healthcare stocks are increasingly viewed as defensive investments in volatile markets, characterized by stable cash flows and consistent dividend growth.
- **Growth Opportunities:** Emerging markets and innovative therapies present significant growth opportunities for healthcare companies willing to engage in calculated risks

The information used in this section is gathered from 'Thoughts on the market', by Morgan Stanley