



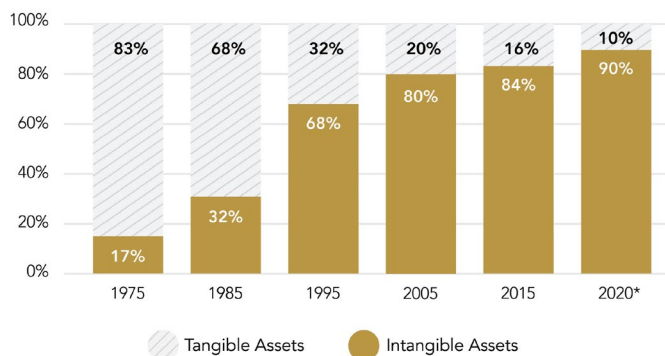
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Ocean Tomo
Intangible Asset
Market Value Study

INTANGIBLE ASSET MARKET VALUE STUDY

Ocean Tomo has released an interim update to the Annual Study of Intangible Asset Market Value (IAMV). This update captures the IAMV as of July 1, 2020, as countries around the world began to open up following the COVID-19 pandemic outbreak. The study examines the components of market value, specifically the role of intangible assets across a range of global indexes. In this update, IAMV is calculated by subtracting net tangible asset value from market capitalization.

COMPONENTS OF S&P 500 MARKET VALUE



SOURCE: OCEAN TOMO, LLC INTANGIBLE ASSET MARKET VALUE STUDY, 2020
*INTERIM STUDY UPDATE AS OF 7/1/2020

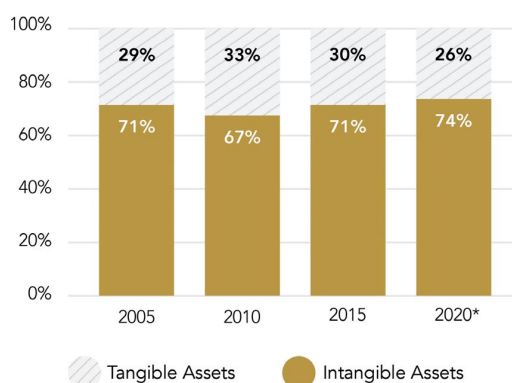
As the COVID-19 pandemic has impacted economies all across the globe, we have expanded our IAMV study beyond the S&P 500 to explore the components of value in several key international markets. Stock market indexes from Europe, China, Japan and South Korea were selected and analyzed to determine the comparable role of intangible assets.

As the world went into lockdown, sheltering-in-place in response to COVID-19, Ocean Tomo began to examine if the coronavirus would have any impact on intangible asset market value. Our experience spans more three decades and suggests that Intellectual Property (IP) is a non-correlated asset. In the short term we expect it to remain resilient during the COVID-19 driven recession.

S&P EUROPE 350

The S&P Europe 350 index comprises 350 leading blue-chip companies from 16 developed European markets. The authors analyzed the index to determine how IAMV has changed over time.

COMPONENTS of S&P EUROPE 350 MARKET VALUE



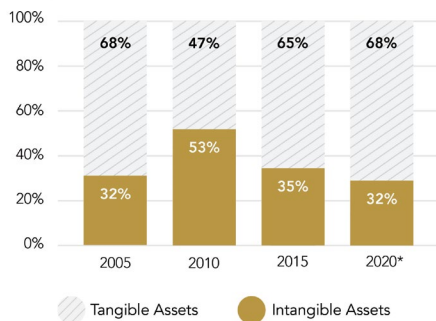
SOURCE: OCEAN TOMO, LLC INTANGIBLE ASSET MARKET VALUE STUDY, 2020
*INTERIM STUDY UPDATE AS OF 7/1/2020

As depicted in the bar graph above, IAMV was comparable at the beginning and end of the 15-year period. Not reflected in the graph, we observed a dip in 2008 that may have been due to the global financial crisis that began in late 2007. Compared to other developed regions, Europe's overall economy has been slower to recover, as euro-zone GDP in the final quarter of 2015 was still below pre-2008 levels. The financial crisis appears to have had a specific impact on Europe's innovation economy. Current innovation activity levels notwithstanding, Europe remains second only to the U.S. in the relative contribution of intangible assets to market capitalization as measured by this study and is still well ahead of the major Asian markets.

ASIAN MARKETS

The authors also analyzed IAMV for major Asian equity markets. Based on the data, IAMV appears to be a much smaller component of overall market cap in Asia than in Western economies.

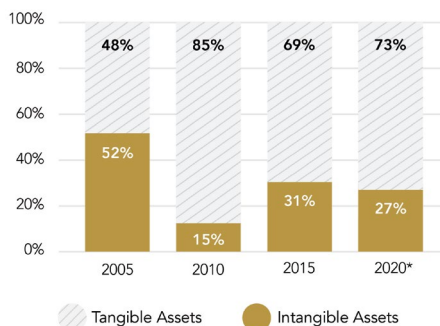
2020 INTANGIBLE ASSET MARKET VALUE SHANGHAI SHENZHEN CSI 300



SOURCE: OCEAN TOMO, LLC INTANGIBLE ASSET MARKET VALUE STUDY, 2020
*INTERIM STUDY UPDATE AS OF 7/1/2020

China's Shanghai Shenzhen CSI 300 Index is a free-float weighted index comprising 300 A-share stocks listed on the Shanghai or Shenzhen Stock Exchanges. IAMV for this index is approximately half of that for the S&P Europe 350. While analysis shows IAMV has steadily fallen from 2010, care must be exercised when examining limited data points, this downward movement may be linked to China's slowing economy.

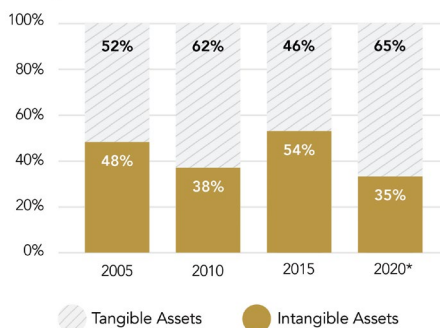
2020 INTANGIBLE ASSET MARKET VALUE NIKKEI 225



SOURCE: OCEAN TOMO, LLC INTANGIBLE ASSET MARKET VALUE STUDY, 2020
*INTERIM STUDY UPDATE AS OF 7/1/2020

Japan's Nikkei-225 Stock Average is a price-weighted average of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange. IAMV has stabilized from the dramatic decline observed following the global financial crisis of '08. IAMV seems to be a somewhat surprisingly small portion of the Japanese economy as measured by this study. We believe this could be in part due to Japan's loss of tech share to countries such as China and South Korea, which have become innovation powerhouses in the past several years with the rise of companies such as Huawei, ZTE and Samsung.

2020 INTANGIBLE ASSET MARKET VALUE KOSDAQ COMPOSITE INDEX



SOURCE: OCEAN TOMO, LLC INTANGIBLE ASSET MARKET VALUE STUDY, 2020
*INTERIM STUDY UPDATE AS OF 7/1/2020

Korea's KOSDAQ Index is a capitalization-weighted index that measures the performance of the KOSDAQ market, a collection of South Korean equities. We observe a steady climb out from the '08 economic crisis, surpassing each year preceding the crisis.

IN CONCLUSION

The impact of COVID-19 is global and affecting all sectors of the economy. While economic experts expect deepening of the COVID-19 recession and a long-lasting economic recovery, the IP landscape and environment are likely to change in a positive direction, and some economic are likely to benefit. The COVID-19 crisis will accelerate and assure permanence of the economic inversion driving an intensely asset-light economy. Ocean Tomo will continue to deploy its expertise in valuation and protection of IP and intangible assets to assist clients to realize their potential to lead the innovation demanded in the post COVID-19 world.



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SOURCE:



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INTANGIBLE ASSET MARKET VALUE STUDY-INTERIM UPDATE, 2020
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About Ocean Tomo

Established in 2003, Ocean Tomo, LLC, is the Intellectual Capital Merchant Banc™ firm providing Opinion, Management and Advisory services centered on finance, technology and related intellectual property assets. Practice offerings address financial expert testimony, complex financial instrument and intellectual property valuation, analytics, strategy, risk and regulatory compliance management, venture development, investments and transaction brokerage. Ocean Tomo assists clients – corporations, law firms, governments and institutional investors – in realizing Intellectual Capital Equity® value broadly defined.

Our Opinion, Management, and Advisory Services are built upon more than three decades of experience valuating intellectual property in the most rigorous of venues – State, Federal and international courts.

Our financial and market experts along with leading technologists, provide a unique understanding of the contributory value of proprietary innovation..

Collectively, Ocean Tomo professionals have:

- Completed over 1000 engagements involving IP worth in excess of \$10 billion including over 300 valuation and 500 financial damages expert testimony engagements;
- Successfully closed hundreds of IP sale transactions with a cumulative transaction value well in excess of \$750 million;
- Served as a trusted advisor involving the biggest IP transactions in history;
- Originated more successful IP monetization solutions than any other firm, including creation of the world's oldest and most successful live patent auction.

Our track record of results spans more than 100 different industry segments. Because our past success provides the best indication of our capabilities, we are proud to feature a few representative engagements and encourage potential clients to seek references from past clients.

Ocean Tomo assists clients – corporations, law firms, governments and institutional investors – in realizing Intellectual Capital Equity® value broadly defined.

A HISTORY OF LEADERSHIP

For more than 30 years, Ocean Tomo professionals have led the field with respect to intellectual capital thought leadership. Select milestones of achievement include:

Organized the first national practice to offer IP valuation opinions.

Created the first scaled investment banking practice, in partnership with leading Wall Street firm, dedicated exclusively to patent based structured finance.

Established a Live Public Auction Marketplace for IP rights.

Created the Ocean Tomo 300® Patent Index – the nation's first index based on the value of intellectual property.

Introduced the first SaaS platform for product-based patent portfolio optimization.



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