



KPMG FAS Newsletter

Driver

Vol. 05 October 2019

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Industry Outlook: Creative Disruptions (Part 2)

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KPMG FAS Newsletter Driver

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Hot Issues and Trend Information



Behind India's leapfrogging phenomenon

India is beginning to see investment pour in from all over the world with the expectation that it will soon become the next hub for startup ventures after the U.S. and China. One unique characteristic of the development taking place in India, however, is that it isn't following the traditional route taken by more developed nations. India's comparative lack of existing social infrastructure has actually created an opportunity for it to leapfrog many stages of the development process in a number of fields, enabling it to achieve cutting-edge innovation in a very short time. And startups are playing a major role in these efforts. For example, the QR codes of e-commerce payment system Paytm (a SoftBank Vision Fund investee) can now be found throughout urban locations, including at street stalls. In the past, less than half of the Indian population owned a traditional bank account, but the spread of smartphones has seen them leap beyond traditional bank accounts to embrace the common use of mobile wallets. As long as there is a need to overcome the lack of existing infrastructure, we will continue to see explosive rates of adoption every time a new innovative service is introduced.



Growing M&A privacy risks

The Marriott International hotel company has been fined roughly 13.3 billion yen for violating terms of the European Union's General Data Protection Regulation (GDPR). In 2018, it was discovered that a hacking incident had caused the leak of about 340 million data points of personal information, 30 million of which pertained to EU citizens. The main reason for the leak was the company's failure to perform its due diligence in terms of implementing proper security measures at the time of its 2016 acquisition of the Starwood Hotel brand. The hacking reportedly began in 2014 and was not detected until after the acquisition, four years later in 2018. The introduction of the GDPR has led countries around the world to enact their own laws aimed at protecting personal information. China is already enforcing its own cyber security laws, and in Brazil and the U.S. state of California, laws similar to the GDPR are also being planned. Laws are also being put in place in India, Thailand and Indonesia, and companies around the world are realizing the increasing importance of due diligence surrounding privacy at the time of mergers and acquisitions.



Progress in the valuation of startups in the U.S.

In recent years, Japanese corporations have started to increase their investments in startup companies. Startups typically carry no real track record, they run at a deficit, and are in a unique position of there being no similar listed companies with which to compare them. Additionally, since classified stock investments are the mainstream, valuing a startup has become a major challenge in the startup investment decision-making process.

In the accounting world, there has been notable progress in the development of fair valuation methods, largely originating in the United States where venture capital investment is perhaps most advanced. Some of the methods being developed require a departure from current concepts, including considerations for shareholder rights of different share classes, proactive use of option pricing models (OPMs), and the handling of premiums and discounts. Opportunities to leverage such methods in Japan remain limited.

Just as the spread of DCF analysis and other general practices once helped to promote Japanese mergers and acquisitions, the spread of these new valuation methods will be indispensable for establishing a common language between parties to a transaction and for further promoting business in Japan.



Japan's rapidly growing ecommerce market: Department store closures reach double digits for first time in 10 years

As real GDP growth remains at zero, the number of department stores in Japan at the end of 2018 totaled 219 – a decrease of 61 stores over the past ten years. This year is expected to see double-digit department store closings for the first time since ten department stores shut down during the 2008 financial crisis. Meanwhile, e-commerce continues to eat away at in-person consumer goods transactions, and in 2018 e-commerce sales grew 8% from the previous year, accounting for 9.2 trillion yen. In particular, sales made via smartphone are a main driver of growth in e-commerce, having risen 20% in 2018 and accounting for a total of 3.6 trillion yen (39% of all e-commerce sales for that year). Conveniences such as mid-shopping product recommendations, the ability to check reviews and purchase with just a few clicks, the diversification of delivery methods, product return capabilities and points systems continue to attract customers and build customer relationships. With the reorganization of e-commerce sites like ZOZO, recently acquired by Yahoo, such platforms' ability to attract customers and utilize data will only continue to accelerate. However, e-commerce accounts for just 6.2% of domestic consumer goods sales. With changing customer needs amid a fusion of the online and real worlds, continuing technological innovation, and alliances of different industries, one certainty is that the challenges will continue for all companies across the retail sector.



Industry Outlook: Creative Disruptions (Part 2)

The Sustainable Development Goals (SDGs) set forth by the United Nations have come to be understood as guidelines for the international community, including both developed and developing nations, and have spurred a range of initiatives taking place around the world. In an era of intensifying competition among companies, where a stream of new technologies is being introduced in the markets, companies are required to collaborate with each other to resolve various social challenges and environmental issues while increasing the transparency of their corporate governance. For this reason, companies must transform themselves by realizing new business models, technologies, and corporate cultures, whether via mergers and acquisitions or by other possible means. Exactly what kind of strategic perspective should companies take on in order to achieve sustainable business growth in this new era and into the future? This edition focuses on relevant points for the chemical, manufacturing and financial industries.

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Since joining KPMG in 2016, Yukiko Nomura has been engaged in corporate strategy formulation and M&A advisory services, mainly focusing on the manufacturing, automotive and logistics industries. Before joining the firm, she worked in scenario planning and marketing strategy development at a domestic consulting firm. She graduated from the University of Tokyo's College of Arts and Sciences with a degree in Life and Cognitive Sciences, and also earned a Master of Business Administration (MBA) from Bond University in Australia.

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Close-up 1

| Close-up | Industry Outlook: Creative Disruptions (Part 2)

PSS x CVC accelerating the shift from selling products to selling services

Author: Yuriko Nomura, Manager

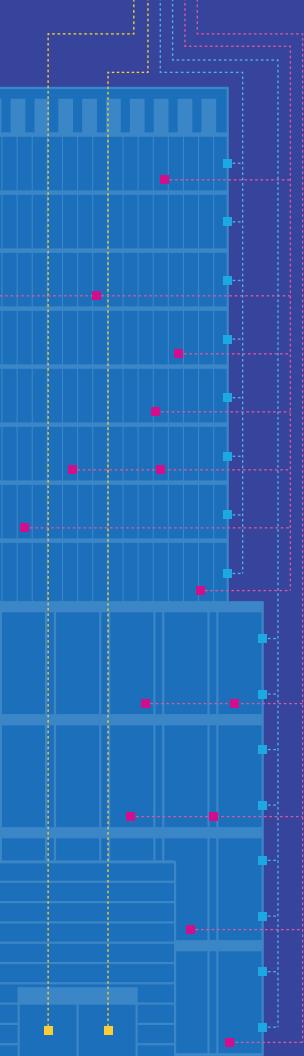
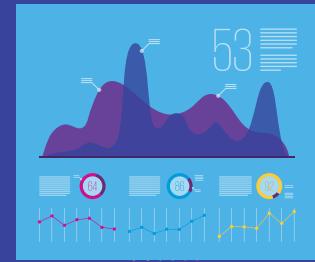
While the concept of shifting from selling products to selling services is becoming somewhat of a buzzword, many companies are still in the process of considering a move in this direction. This trend is apparent across a range of industries, and construction is no exception. Using examples from around the world, I will explain the essence of this manufacturing industry-derived concept of breaking away from selling physical products. And the essence is this: companies must shift away from being businesses that manufacture goods toward ones that seek to enhance the way their goods are used. They can do this by clarifying both their service target and the value on offer – with help from external resources, especially digital technology.

Digital technology is making the product-as-a-service business model more feasible

To make the shift from selling products to selling services, the configuration of a Product-Service System (PSS) is said to be important. At the heart of the PSS concept is the desire to enable the cohesive delivery of both products and services by focusing on the value provided by the usage of a product. PSS itself originated from the manufacturing industry, where emphasis is placed on the utility derived from a product's functions. The use of IoT and other digital technology is considered particularly effective for the successful implementation of PSS. The reason for this is that by installing various sensors into a product, IoT technology can be used to monitor how the product is actually being used.

PSS can be categorized into three types depending on whether the

emphasis is on the product or the service, whether a product is actually provided or not, and whether ownership is transferred or not. Digital technology is a key driver for all three types. The first type is Product-Oriented PSS, which involves both product provision and transfer of ownership. A representative example of this type of PSS is Komatsu's remote monitoring system for construction machinery. The company's system is based around the use of sensors embedded in construction machinery. The second PSS type is the Use-Oriented PSS, in which products are provided but a transfer of ownership does not take place. Hilti, which provides fleet management services for construction tools, is a good example. Using sensors to monitor the status of their products, the company has been able to create a tool usage location tracking service as well as a service that recommends other tools based on the status of



products currently in use. Finally, there is the Results-Oriented PSS, which places the strongest focus on service and provides neither products nor transfers ownership. An example of this is Rolls-Royce's aircraft engine maintenance and total care service. The company tracks engine usage with real-time monitoring sensors embedded into the machine, and can carry out real-time diagnosis, route planning, and operational support to

improve fuel consumption.

As the examples above demonstrate, the functional effectiveness of any type of PSS can be increased using IoT and other digital technologies.

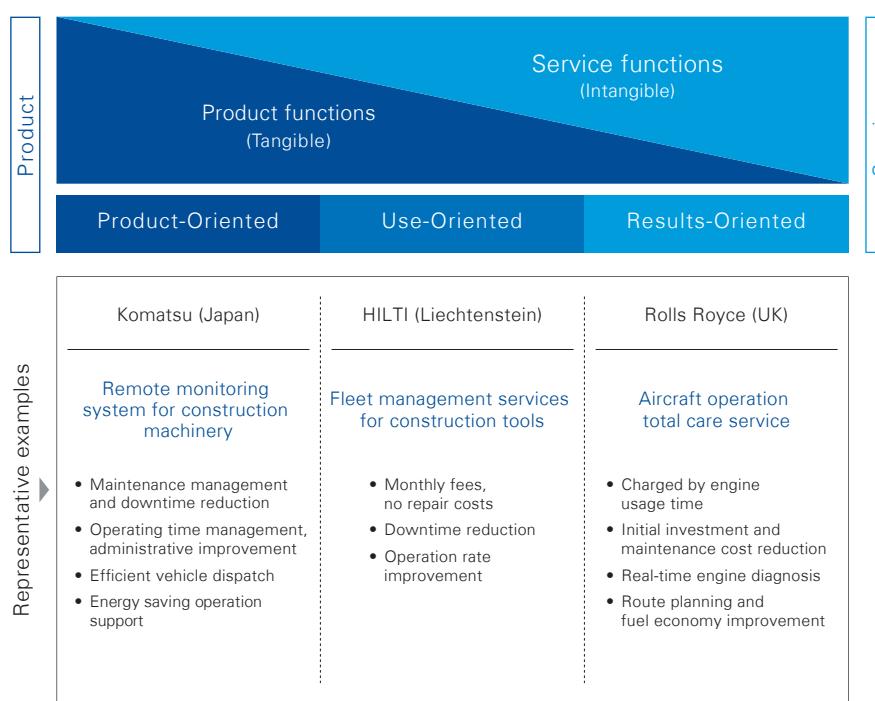
Digitalization trends making headway in the construction industry

Recent years have seen digital

technology being applied to a range of situations in the construction industry. The introduction of Building Information Modeling (BIM) has been particularly prevalent. BIM is a technology that allows users to build a virtual 3D model on a computer. But unlike conventional 3D CAD, in addition to providing a three-dimensional form, BIM presents a single model incorporating a variety of attribute information – from the specifications and performance of the components and equipment to be used in the building's construction to the price and the construction period. This technology consolidates items that previously existed as separate models – such as all drawings and data lists – into a single interconnected model, so that when one drawing is modified, all other drawings and attribute information are updated automatically. Being able to carry out cross-sectional sharing and real-time information integration of BIM across each of the functions of the construction value chain (including planning, design and construction) results in a significant boost to operational efficiency.

Additionally, in recent years BIM is also being applied to post-construction facility management (FM). The benefits are again significant because the use of 3D makes it much easier to identify issues that cannot be measured using 2D diagrams, and because it is also possible to carry out energy cost simulations specific to a facility of property.

Product-Service System types



Source: "Eight Types of Product Service System: Eight Ways to Sustainability? Experiences from SUSPRONET," (TukkerArnold, 2004), KPMG analysis based on information available on each company's website

Vinci diversifying revenue sources in pursuit of user needs

As noted above, adoption of BIM through each of the functions of construction has yielded significant benefits at the construction stage, including improved efficiency and cost management. It should be said, however, that the building data being collected is static in the sense that it is from a specific point in time that has now passed – such as when construction was completed. To date the benefits of BIM have been limited to the player side of the equation, including design, construction and FM, but that may now be changing.

By installing sensors on buildings and facilities and incorporating the resulting data into BIM, the data can be considered to be “present continuous,” and tests are being carried out in the FM business to see if this approach benefits the user side of the equation.

This movement is being led by major French construction firm Vinci, group sales of which reached 5 trillion yen in fiscal 2018. In August 2018, the company announced that it is positioning a combination of BIM and IoT – the so-called “digital twin” – as an area of new growth in FM, applying it to buildings that it has constructed.

Through comprehensive collection and analysis of data generated through user interactions with buildings, Vinci aims to launch a new service in 2021 to better meet user needs. Although the specific details of the service have not been disclosed,

Vinci is expected to focus on a combination of behavioral data, such as how users move and what they purchase, and environmental data, including the temperature, humidity and brightness within a facility. Analysis of this data could make it possible for Vinci to create a service that automatically fosters a facility environment that enhances the purchasing motivation of users. Also under consideration are the various possibilities with the development of a service that captures potential user needs and then proposes tenant business formats to owners in anticipation of demand.

What we can expect from the development of such services is an improvement in customer satisfaction and a subsequent increase in the sales performance of both the tenant and the owner. Vinci is in position to establish a competitive advantage in the FM field. From a medium- to long-term perspective, we are likely to see the implementation of a system whereby service fees are collected according to the results generated for tenants and owners.

Such initiatives by Vinci are consistent with the concept of Results-Oriented PSS, whereby user value is increased without a physical product or transfer of ownership. Vinci’s shift in focus – from how its buildings are built to how they are being used – is guiding the development of the company’s own unique PSS design.

I should point out that this initiative by Vinci is being driven by collaboration between its Open

Laboratory Group and startups. Beyond its own R&D activity, the company has long been active in acquiring external capabilities, particularly those developed by startups. Since the mid-2010s, the company has held startup boot camps and contests in addition to setting up corporate venture capital (CVC) funds. In particular, the company has actively sought to introduce advanced technologies from outside the company, including IoT, AI and 3D printing. This includes partnerships with a startup developing wearable sensors that track human biological information and a startup developing a 3D printer that can process concrete.

The Open Laboratory Group was formed in 2017 in the midst of this movement. As mentioned at the beginning of this article, digital technology is the key to increasing the practicality of PSS. Vinci has achieved this mainly by incorporating the capabilities of startups.

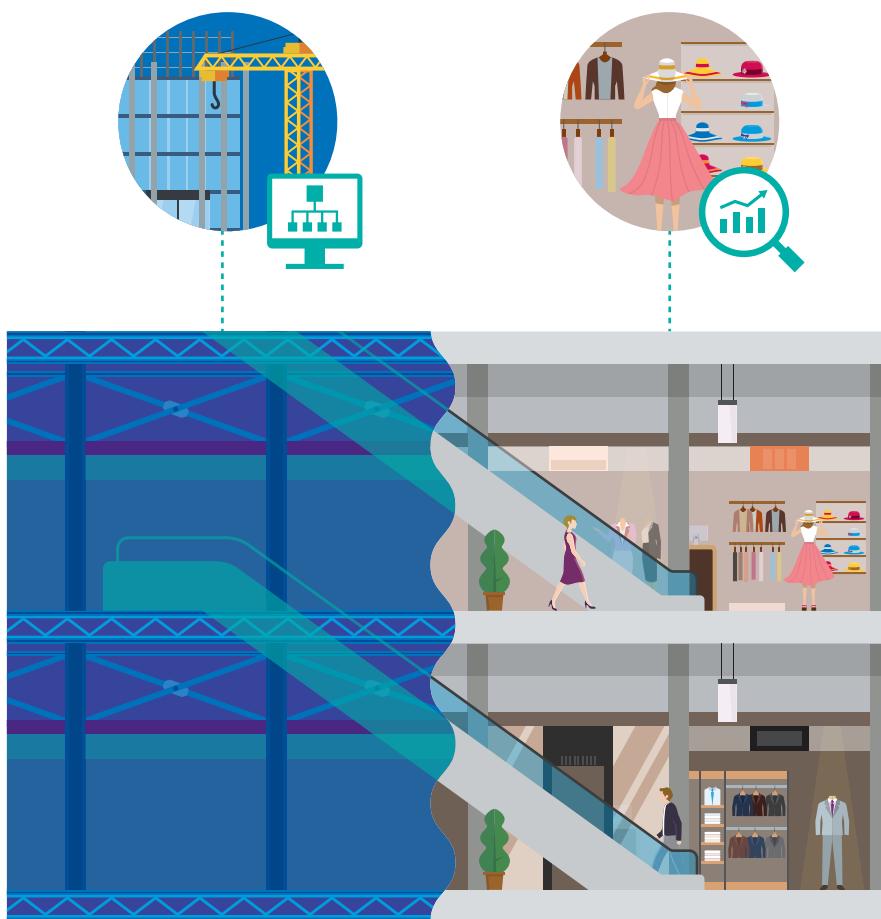
From a business of making to a business of enhancing usage

Looking at the Japanese construction industry in terms of the shift from a “business of making” to a “business of enhancing usage,” a small number of general contractors have launched digital twin trials aimed at leveraging both IoT and BIM, but the feeling is that these initiatives have been limited to the streamlining of existing FM businesses by individual companies on their own.

With population decline expected to reduce demand for new construction

in Japan in the years to come, a key issue of debate will be how to expand the scope of the shift from a “business of making” to a “business of usage enhancement.” Critical to its achievement will be incorporating the PSS concept of focusing on the usage value of the product or building while actively working to introduce not only

internal technologies but also CVC and other mechanisms that seek to leverage on external technologies. That will mark the true transition to a product-as-a-service business model and will likely lead to a new era of improved customer value.





Close-up 2

What comes after the panic over plastics?

Author: Kaoru Mano, Partner

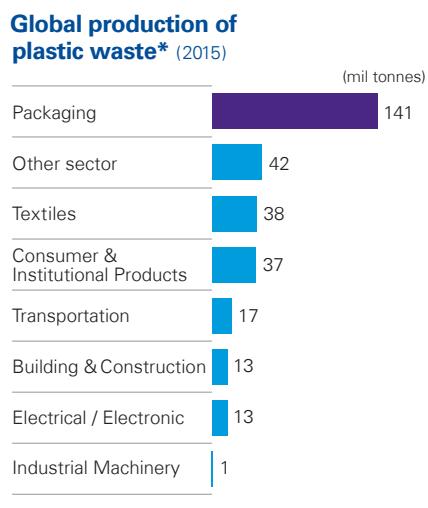
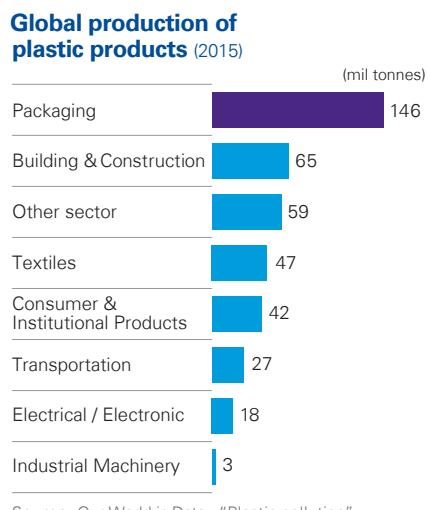
Due to the marine debris problem, the use of plastic is now the target of severe criticism. The European Parliament has even passed a bill prohibiting the sale and use of disposable plastic products. In response to such trends, global consumer goods companies are leading the way in terms of searching for new manufacturing materials and strengthening efforts to recycle. In this piece, we analyze the changing environment around plastics brought about by greater environmental awareness – looking at the issue from the perspective of new government regulations, ESG investment trends and the actions of players in various industries, including materials manufacturing, consumer goods, retail and distribution and material recycling. In addition, through comparative analysis of trends in Europe, the United States, China and Japan, we examine the directionality of market changes and the impact to be had on Japanese chemicals manufacturers.

Direction of EU-led regulatory and investment trends

Buffeted by a wave of public opinion – in particular among millennials and in the European Union – the marine debris issue has spawned a trend toward reduced use of plastic that in turn has led to stricter government regulations and the expansion of ESG investment. In terms of regulation, import restrictions have been introduced in China and other Asian countries that had traditionally accepted large volumes of plastic waste, while other countries have implemented “reduce and recycle” regulations. In addition, the shift toward globally expanding ESG (environmental, social and corporate governance) investment by institutional investors is expected to have a significant impact on the evaluation of plastic products and the

manufacturers that produce them. In response to these trends, global consumer goods brands are beginning to move away from plastics.

The result is that instead of focusing on more voluminous sources of plastic waste – i.e. packaging – attention is drawn to more familiar sources as early targets – such as plastic straws and bags – even though these items only account for a small percentage of total plastic waste produced. In any case, at least 127 countries are engaged in some form of policymaking seeking to reduce the use of plastic bags, and the greater movement to reduce plastic waste is gaining ground.

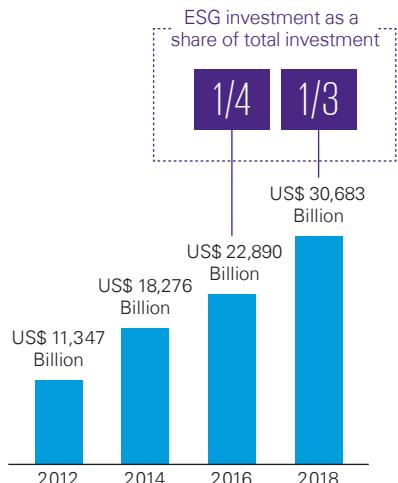


The details of these regulations indicate that discussions are progressing in the direction of strengthening efforts to recycle more effectively, in addition to simply

promoting reduced use of specific materials. The EU is in the vanguard with targets for recycling recovery rates and inclusion rates for recycled materials. Since day one of the Trump administration, however, U.S. environmental policy has continued to regress, leaving the country completely out of touch with the mainstream. In addition to regulations on the acceptance of imported plastic waste, China is strengthening efforts to reduce the use of such materials, but there are concerns about their effectiveness. Japan enacted the Law for Promotion of Sorted Collection and Recycling of Containers and Packaging in 1995, and since then discussions have taken place at the G20 summit in Osaka and in anticipation of the 2020 Tokyo Olympics; but compared to the EU, its efforts have been lagging. Leadership in the fight to reduce the use of plastic and promote environmental regulations is firmly in the hands of the EU.

Meanwhile, the scale of ESG investment continues to expand worldwide. At the time of a GSIA survey in 2016, ESG investment was already worth 2,500 trillion yen, accounting for about one-quarter of total global investment; the latest survey, conducted in 2018, shows that in only two years this amount had increased by 34 percent to reach 3,400 trillion yen. Given such growth, ESG investment – which now accounts for as much as one-third of all global investment – is expected to continue along the same trajectory well into the future.

Global ESG investment



Source: "2018 Global Sustainable Investment Review", GSIA

In Japan, the total amount of ESG investment is still small relative to the EU and U.S. but the average annual growth rate exceeds 300 percent and continues to rise.

In terms of ESG investment, the oil industry is already subject to negative screening. Under the influence of the marine debris problem and public opinion, plastics – which are derived from petroleum – are now recognized as probable targets for similar negative screening by ESG investors. The drive toward ESG investment by institutional investors is becoming such that not only are chemical and petroleum-producing companies no longer able to ignore their influence, but the same now holds true for all companies who simply use these chemicals and petroleum products for consumer goods, distribution, retail and so forth.

Industry change associated with trends for global consumer brands

Consumer goods manufacturers singled out by ESG institutional investors are pursuing efforts to reduce the use of virgin materials and improve recycling efforts ahead of pending regulations in various countries, setting high targets for the period between 2025 and 2030.

Global food and beverage major Nestlé has set itself the goal of using only recycled or biodegradable containers by 2025 in addition to introducing PET bottles comprised of 35% recycled PET plastic (50% in the U.S. and Europe). The company has partnered with Veolia, a French transnational working toward the commercialization of chemical recycling; and has tied up with PureCycle Technologies, a U.S.-based recycling tech venture, to introduce standard-level production of recyclable materials in the food manufacturing industry. Other efforts by Nestlé include plans to open a research institute dedicated to paper packaging and biodegradable plastics.

Adidas, a leading sports apparel company, has declared that by 2024 it will stop using virgin polyester, which currently accounts for fifty percent of the inputs used for its consumer products. Additionally, it intends to release a running shoe made from a single material in 2021.

Looking at the efforts of many other global consumer brands, the direction of industry change can be aggregated into the following four trends: 1)

reduced use of petroleum-derived virgin materials; 2) adoption of biodegradable containers and recyclable materials; 3) promotion of investment in recycling technology and creation of recycling chains (both led by consumer goods manufacturers); and 4) creation of monomaterial products manufactured using only a single material to facilitate easily recyclable finished products.

Issues related to industry change

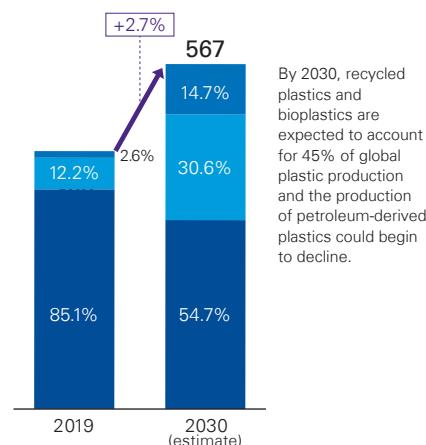
Here, I'd like to introduce data that refutes certain calculations that have been made based on some degree of assumption (please refer to the graph labeled "Global Market Outlook by Plastic Type").

So far, we've reviewed the difficult business conditions surrounding the production and use of plastics, but in reality, the plastics market is expected to continue growing. The packaging sector – now also a target of sustainable manufacturing efforts – has few alternatives (such as paper) to turn to for sustainable packaging; this being the case, expectations are that the switch from virgin materials to bio-based materials and recyclable materials will continue to progress within the plastic industry.

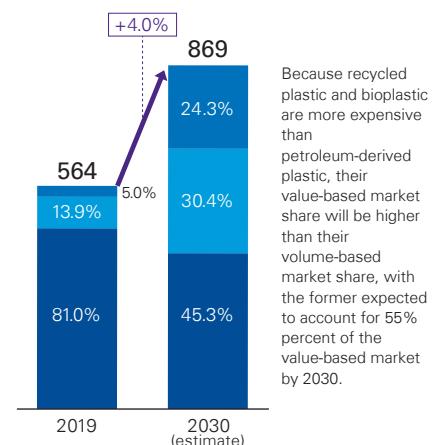
However, the switch to bio-based and recyclable materials presents its own issues. Compared to virgin materials, bio-based and recyclable materials are characterized by lower quality, reduced functionality and higher costs. High-functionality

Global Market Outlook by Plastic Type

Production (millions of tonnes)



Market scale (\$billions)



* "Bioplastic" is a generic term for biodegradable plastics and plant-derived plastics / Source: KPMG Research

plastics – such as the multilayer films used in food packaging – require many kinds of materials to be mixed together during the manufacturing process, making them difficult to recycle in accordance with mainstream material recycling efforts. Generally speaking, any field that requires highly functional materials faces a harsh reality: it is difficult to satisfy functionality requirements using only the currently available options for recyclable materials and bio-based plastics.

Meanwhile, easy-to-recycle monomaterials have yet to demonstrate a level of technical achievement that would allow them to satisfy industry requirements for quality and functionality.

Notwithstanding the existence of polyethylene terephthalate (PET), often referred to as “the star of recyclable materials,” huge barriers continue to impede the development of recyclable materials that can help business achieve industry targets.

How to overcome these challenges – Recommendations for Japanese chemicals manufacturers

The commercialization of chemical recycling is being looked at as a promising means by which to overcome some of these challenges. Chemical makers to date have made limited effort to use recyclable materials because doing so would reduce demand for virgin materials and because, as far as chemical recycling is concerned, it was not

cost-effective. The end result has been a constraining effect on research and development and commercialization.

Contemporary recycling value chains are being led by consumer goods companies, who are endeavoring to build material and chemical recycling chains alongside recycling majors and technology ventures. Already, consolidation among major recycling businesses is progressing globally, and many advances are being made by tech ventures, which view changing business conditions through the lens of opportunity.

Under the current circumstances, some chemicals manufacturers may be looking at the opportunity to sell bioplastics, but the main goal is to build recycling value chains; and the role that the industry can play in building these value chains is great. In particular, they are expected to contribute to the construction of chemical recycling chains as solutions to future challenges. Through collaboration with consumer goods manufacturers and recycling companies, chemical manufacturers are expected to play a role in making way for mass production based on the technologies provided by technology ventures, and for commercialization of their own accumulated technologies which are still in the research and development phase.

Further expectations for the creation of recycling value chains include not only participation by individual companies in initiatives led by major consumer goods

manufacturers, but also collaborative efforts alongside major global chemical companies that allow Japanese companies to play a leading role in the construction of recycling frameworks worldwide. Substantial hurdles remain to be overcome, such as de facto bargaining, rulemaking and efforts to promote global cooperation (especially the paradigm-setting efforts of the EU), but the time to take big steps toward the fulfillment of these roles and expectations is right now.



Close-up 3

A new top-line strategy for financial institutions

Author: Takehiko Matsuura, Managing Director

In the overseas financial industry, attention is being drawn to how several notable players have been strengthening their fee-based businesses. For the sake of investing in and cultivating markets together with their customers, these financial institutions are also changing their corporate philosophies, placing priority on “contributing to the corporate value of customers.”

Similarly, as Japanese financial institutions rethink their transaction fee-based business it will become necessary for them to shift away from traditional investments made on one’s own behalf and toward business opportunities undertaken in tandem with customers. We see the setting up of profit-sharing joint ventures, CVC utilization and synergy development, and the turning of financial know-how into useful services as entry points for financial institutions. Let’s consider this trend with some helpful examples from overseas.

BtoB fee-based business potential

Rapid progress in the practical application of digital technology has led some to deem today the age of the startup. One reason for the proliferation of startups is that a rich environment – data structuring and cloud environments supporting everything from information gathering to service deployment – makes viable even companies with only a handful of staff. At the same time, however, such circumstances are taxed by the need to solve certain social issues. Factors such as the difficulty associated with working for a large corporation, the aging population and shrinking workforce, the segmentation of consumer preferences and needs, and the decline in individual disposable income due to increased social burdens are only compounding

society’s demand for “higher-level service from smaller organizations” as well as “the need to cope with the risk of accelerating service obsolescence.”

So, what do entrepreneurs look for in this age of the startup? These would be the ability to easily enter or withdraw from a business and the availability of opportunities to monetize. In the U.S. it is now common for individuals to work regular weekday hours while dedicating evenings and weekends to side businesses that respond to certain local, market or industry needs – and it is the financial institutions that are supporting this style of work. When a company is created, costs associated with the back and middle office can be quite hefty, but financial institutions are playing a role in creating an environment in which services can be enjoyed via metered



billing and with zero initial cost.

And the situation in Japan? Well, if you want to launch a startup, you'll have to devise your own accounting and finance and internal control systems. And find your own personnel. And do this all ahead of time in the name of self-responsibility. If, for example, you want to start a caregiving service or a business providing support services to foreigners, you'll have to spend some of your time on accounting tasks, hiring others will lead directly to increased costs ... and then there's always the risk of fraud. Surprisingly, you may find yourself in a situation in which nobody wants to help you.

But management and performance challenges aren't just for startups. They can be found within a growing number of industries – including top retailers, major hospitals, regional financial institutions, regional logistics companies, and caregiving services. A unique characteristic of Japan's business environment is that a variety of costs not necessarily associated with the main area of business continue to increase – a contradiction of sorts, given that we live in an age of IT. From the perspective of a Japanese financial institution, however, the various corporate duties that compel businesses to bear costs unrelated to their main business activities constitute a "blue ocean" opportunity for BtoB business fees.

Following are two examples of overseas financial institutions that are practicing the approach of establishing and capitalizing on fee-based business in BtoB markets – a strategy that has

been gaining attention in recent years.

Overseas Benchmark #1: DBS and the utilization of CVC

Although the Development Bank of Singapore (DBS) has been turning heads recently for its entry into retail banking in other Southeast Asian markets, for a while now it has been supporting industry through the use of fintech, collaborating with startups and demonstrating a remarkable ability to form cooperative relationships with client companies, making it one of the top financial institutions in Asia.

Last October, DBS announced a collaboration with Agrocorp International, a global agricultural trading company, and Distributed Ledger Technology, a blockchain startup, to develop and provide a blockchain trading platform to 4,500 large scale Agrocorp farmers in Australia. Under this platform, DLT – also a DBS investee – uses blockchain technology to deploy a real-time logistics monitoring system while DBS itself also manages a blockchain-based trade finance service, enabling the real-time actualization of both logistics and finance via DBS' API. Such an innovative platform, which has the potential to combine "finance + CVC + industry" with "synergy development," is surely unique.

Remarkably, although the purpose of the project was to reduce costs while improving customer convenience, DBS, a financial institution, made the decision to

invest both time and money to develop and provide new services for the client. As a result of that decision, DBS has established an exclusive position for itself: it can capture settlement fees paid by participating merchants of client companies and at the same time capitalize on a variety of opportunities to provide working capital.

Overseas Benchmark #2: NT and its practice of finance BPO

Northern Trust (NT) is a major U.S. bank that has carved out a reputation for being a top player in the U.S. fee-based business segment. For many years, its main business involved securities settlement and the associated supply of working capital, collateral financing, custodianship and cash management solutions (CMS). Because the company has built its business on the principle of focusing on "client assets" and "client operations," it has developed services related to advanced risk management, anti-money laundering (AML) know-how, and compliance to regional financial institutions and businesses through joint ventures and the acquisition of business process outsourcing (BPO) companies.

Users range from SMEs with just a few employees to large companies, with client companies finding themselves freed from burdensome middle office and risk-management tasks, accounting operations and so forth, enabling them to realize lower-cost operations. NT's fee-based

business is remarkably strong, and now accounts for over seventy percent of its topline revenue.

Moving beyond joint investment with the client to offer new profit model know-how

The common thread connecting the two companies profiled above is the philosophy behind their respective business models. DBS is a government financial institution, so it has strong incentives for undertaking investment and business development from the perspective of industrial development. In the case of NT, there is an expectation for it to engage in

certain peripheral business activities that accompany trust banking, and it is written into its corporate DNA to ensure convenience and safety for customers when engaging in these activities.

The most accessible avenue for putting this philosophy into practice is the inorganic strategy of working with multiple partners to invest jointly with and share profits among customers – that is, a “profit-sharing joint venture.” This approach is also referred to as corporate venture capital (CVC) for its consideration of business development synergies based on the know-how of third parties not located within the investing bank.

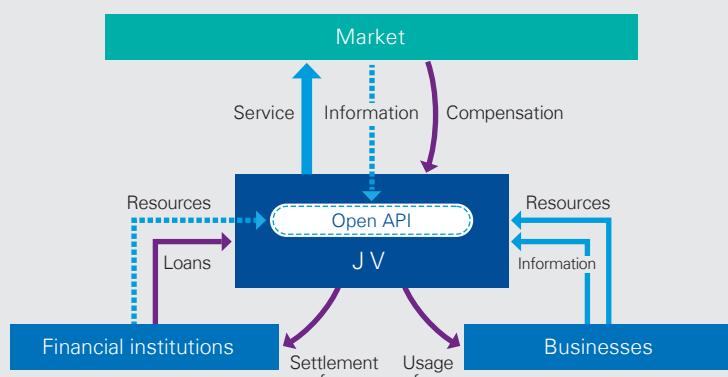
But what about Japanese banks? What percentage of recent Japanese bank investment and expenditure has been spent on customer support? Most likely, more than ninety percent is being spent on labor costs, maintenance costs and system renewals – at a time when overseas benchmark financial institutions are already guiding half of their annual investment and expenses toward collaborative business development with customers.

What matters most when considering new business opportunities with client companies? Simply stated, it’s placing the absolute maximum emphasis on client value creation. To achieve this, it’s necessary to negotiate in advance with clients and other collaborators and to agree on a vision for the future that reflects the requirements of each party. Also crucial to success are developing a business plan with a high level of feasibility and having a deep understanding of the target business and market. Cooperation between business experts and collaborators for the sake of ensuring proper management and fulfilling common goals – both when building the business and during execution – is also essential. Forming an effective team requires conditions that facilitate collaboration between partners from different corporate cultures and business areas.

Using the JV: new competitive platform

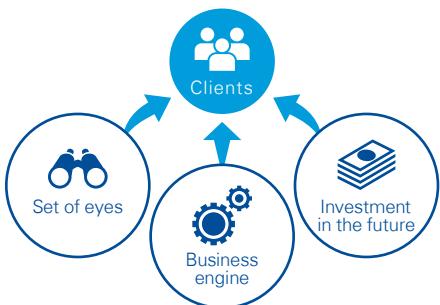
When a bank utilizes its open API, it can handle all investment processes – from development to execution – gaining a competitive edge because it can present the operation as a completely new service.

Profit-sharing JV



Contributing to new value creation focused on social issues

Here, I lay out the three elements that are absolutely necessary for creating virtuous cycles for new, BtoB fee-based businesses based on collaboration between domestic financial institutions, their customers and third parties. The first is a “set of eyes” able to clearly define business needs; the second is an “engine” providing essential infrastructure for building up business; and the third is “investment in the future” that will make it possible to nurture the newly born business.



The starting point is for a trusted set of “eyes” to identify factors that will help expand client and collaborator markets as well as business needs that will help them enhance managerial efficiency. Next, the “engine” to drive the infrastructure that will lighten the operational load must be provided and practical support roles implemented. Finally, it will become possible to effect continuous “investment in the future” using profits gained, and this

investment will help to establish both a cycle and a sustainable model for profit growth.

If Japanese financial institutions can harness these three functional elements and introduce new profit models, then the real benefit will be the resulting effect on Japan’s longstanding social issues.

Returning to a topic I touched upon earlier, when it comes to alleviating the labor shortage being experienced by domestic businesses – a shortage brought about by an aging population and shrinking workforce – financial institutions, as business support platforms, should be able to provide treasury management services as well as services that lighten the load of accounting and finance departments. In both areas, financial institutions should be in a position to demonstrate supportive measures for resolving human resources shortages at relatively low cost with conventional financial operations.

Another role financial institutions in Japan are being asked to play is that of helping to address the longstanding issue of revitalizing regional economies, which have suffered under the combined influences of population decline and urban migration. The key to regional revitalization is the promotion of local economies and the jobs that will follow. To make this a reality, developing services and experiences that are unique to each region is essential – a challenge that will be difficult to achieve solely through local wisdom and human resources. More precisely, the creation of new projects

through outsourcing, partnership with essential third parties, and effective use of coworking opportunities will be indispensable to the provision of low-cost, high-quality services and experiences. In this respect as well, financial institutions should be in the position to act as regional collaboration hubs playing a leading role in the establishment of new value creation cycles – cycles that are firmly rooted in each region and realized by means of harnessing the three functional elements mentioned above.

By investing alongside one’s clients and creating business opportunities that provide new value together, Japanese financial institutions can reestablish their worth in the domestic market while building new profit models. Bearing this in mind, it seems clear that the way forward for domestic financial institutions is development of their BtoB fee-based business.

Market Check!

EV/EBITDA multiple trends by sector



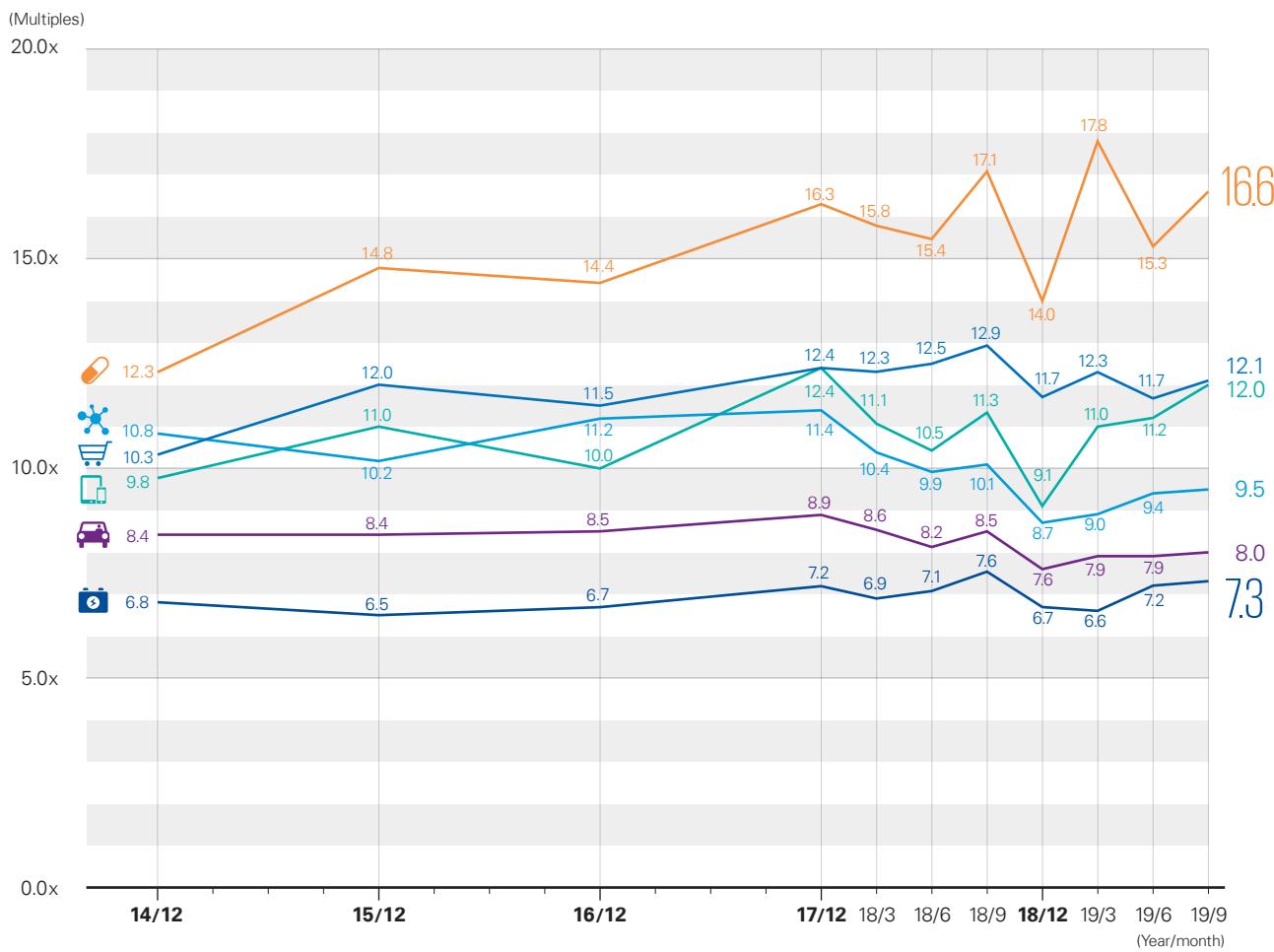
Market multiples trends as an indicator for measuring M&A Markets

Looking at six sectors ranging from hardware centric to software centric, this section provides fixed-point observation data for the market multiples of major markets in Japan, the US, and China.

M&As are defined as an important tool for companies in realizing growth strategies. M&As by Japanese companies both in Japan and overseas continue to increase.

We hope these data will provide you with insight into the M&A transaction trends in the sector to which your company belongs, as well as the recent growing trend of cross-sector M&A transactions.

Changes in EV/EBITDA multiples: Japan



• Component issues of the six sectors

Sectors	Industry classification	Representative companies (as of September 2019, top five of market capitalization) Japan
Energy, utilities and communications	Energy-related facilities and services / Oil, gas and consumable fuels / Electrical communications, wireless services, independent power generation business / Electric power, gas, tap water / Comprehensive utilities	NTT / NTT Docomo / Softbank / KDDI / JX TG HD
Materials and capital goods	Chemical, machinery, semi-conductor, aerospace, defense / Metal, mining / Paper products, wood products, containers, packages / Construction, civil works, electrical equipment, architectural materials / Trading companies, distribution, conglomerate automobile parts / Automobiles	Shin-Etsu Chemical / NIDEC / DAIKIN / Mitsubishi Corporation / FANUC
Automobiles and durable consumables	Durable goods	TOYOTA / Sonny / Honda / DENSO / Bridgestone
Consumer goods and retail	Retail, sales / Beverage / Foods / Tobacco / Home appliances / Personal goods	FAST RETAILING / JT / Kao / Seven & I HD / Shiseido
IT Internet	Internet sales, catalog sales / Interactive media and services / IT services / Software healthcare related	NTT Data / Fujitsu / Nomura Research Institute / Yahoo / Rakuten
Pharmaceuticals and healthcare	Biotechnologies / Pharmaceuticals / Life science tools	Takeda / CHUGAI / DAIICHI SANKYO / HOYA / Astellas
Component number (September 2019)		271

	Energy, communications, utilities		Japan	——
	Materials, consumables		USA	-----
	Automobiles, durable consumables		China	---
	Consumables, retail			
	IT Internet			
	Pharmaceuticals, healthcare			

EV/EBITDA multiples:

Index indicating the enterprise value (EV) multiples against earnings before income tax and depreciation and amortization (EBITDA)

*In this analysis, we determine EV as the total of market capitalization and interest-bearing liabilities. The EBITDA stated is for the most recent 12-month period.

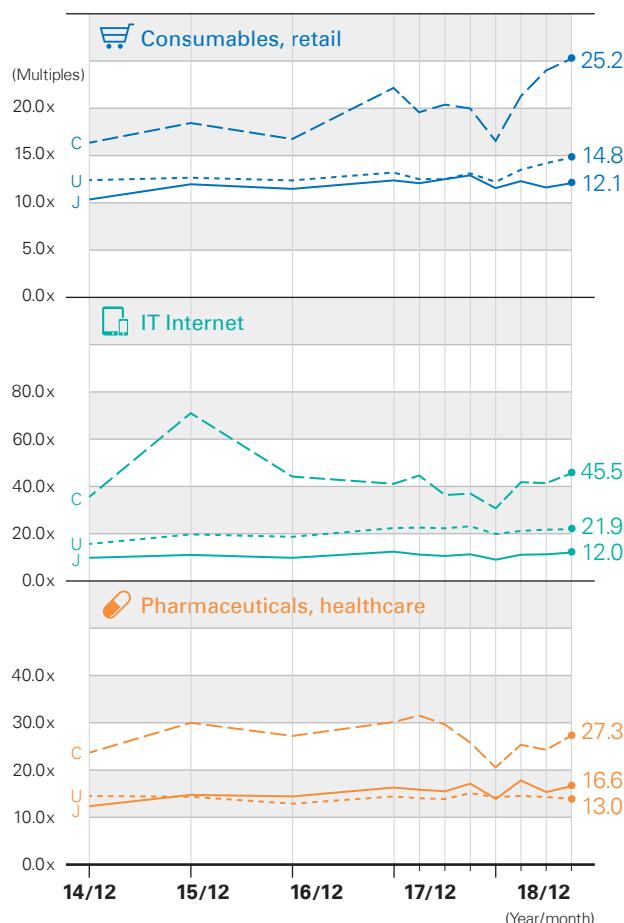
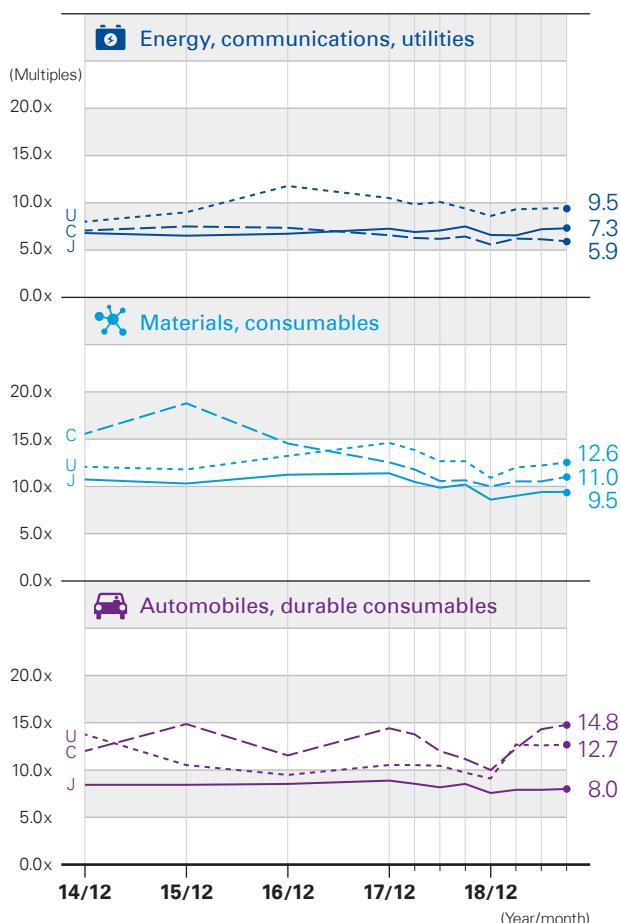
• How to calculate multiples

We classify the component issues of representative stock indexes (JPX Nikkei 400; S&P 500, CSI 300) into the following six sectors defined by KPMG: "energy, utilities and communications," "materials and capital goods," "automobiles and durable consumables," "consumer goods and retail," "IT Internet," "pharmaceuticals and healthcare." Then we illustrate them with charts.

• Sources

Capital IQ / Bloomberg

Country comparisons of changes in EV/EBITDA multiples by sector: Japan / USA / China



USA	China
Exxon Mobil / AT&T / Verizon Communications / Chevron / NextEra Energy	PetroChina / China Petroleum & Chemical / China Yangtze Power / China Shenhua Energy / China United Network Communications
Intel / The Boeing / Honeywell / Texas Instruments / United Technologies	China State Construction Engineering / Anhui Conch Cement / CRRC / China Communications Construction / China Railway Group
General Motors / Ford Motor / Aptiv / D.R. Horton / Lennar	Midea Group / Gree Electric Appliances / SAIC Motor / BYD / Guangzhou Automobile Group
Walmart / The Procter & Gamble / The Home Depot / The Coca-Cola / PepsiCo	Kweichow Moutai / Wuliangye Yibin / Foshan Haitian Flavouring & Food Co / Wens Foodstuff Group / Inner Mongolia Yili Industrial Group
Microsoft / Amazon.com / Alphabet / Facebook / Visa	360 Security Technology / Yonyou Network Technology / iFLYTEK / Hundsun Technologies / Beijing Shiji Information Technology
Johnson & Johnson / Merck & Co / UnitedHealth Group / Pfizer / Abbott Laboratories	Jiangsu Hengrui Medicine / WuXi AppTec / Aier Eye Hospital Group / Yunnan Baiyao Group / Chongqing Zhifei Biological Products
321	171

Publications & Reports

★ Recommended Books

Publication



Practical CVC

From the development of strategies to foundation and investment valuation

This book elaborates on practical approaches required through all phases of CVC operations by comprehensively discussing the flow of processes from establishment and operational management to exit strategies. The reports closely reflect KPMG's experiences with CVS supports while describing the most sophisticated CVC transactions in the US and Japan.

Editor : KPMG FAS Co., Ltd.
Publisher : Chuoizai-Sha
Publication date : October 5, 2018
No. of pages : 252
Price : ¥2,200

(Available only in Japanese)

★ Recommended Books

Publication



Understanding M&As

This book elaborates on the flow of M&A transactions from the development of a project to due diligence, valuation, the contract, the closing, and project management, while lucidly highlighting key issues in each phase.

Authors : Masahiko Chino, Hikaru Okada
Publisher : Nikkei Publishing
Publication date : June 2018
Price : ¥1,000

(Available only in Japanese)

★ Other recommendations



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(Available only in Japanese)

- "ASEAN Company Map - Second Edition"
Shoieisha / January 2019
- "Business Rehabilitation and Buyout"
Chuoizai-Sha / November 2018
- "Customer Experience Strategy"
Nikkei Publishing / June 2018
- "ROIC Management – Development of Power to Generate Profit and Strategic Dialogue"
Nikkei Publishing / November 2017
- "Corporation and Business Rehabilitation Handbook"
Nikkei Publishing / April 2015
- "Chart – All about Enterprise Value"
Nippon Jitsugyo Publishing / April 2011



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