

Research on Business Models of Asset Management Firms

Final Report

2018/3/30

Report Summary (1/4)

I

Research objectives

1. Considering the severity of pension finance due to the aging of society, the traditional investment strategy that relies exclusively on passive investment of the four traditional assets is approaching the limit. GPIF is required to utilize the broad knowledge of the asset management firms in order to incorporate high-quality funds while suppressing risk.
2. Based on the recognition of the above challenges, this research will focus on the following:
 1. Strengthening assessment capabilities of high-quality funds, based on understanding of characteristics of asset management business structure.
 2. Acquiring suggestions for constructing reciprocal relationships with asset management firms.

II

Environmental change around asset management firms

With the arrival of a “information oriented society” and the sophistication of the financial infrastructure, earning investment income with the traditional way – through “asymmetry of information” – has become more difficult. Investees’ needs are also changing as the capital flow changes. As a result, asset management firms must transform their current method of pursuing efficiency through scale within a given business model. They must either go all out and expand their size to extreme levels, or continuously rethink their investment targets and strategies. As a platform, they could also directly contribute to improving the value of the investee.

1. The existing business models of asset management firms are primarily classified into four types, in which information asymmetry between the investor and the investee and the relative size of the investment contribute to investment income:
 - ① Scale-pursuit type
 - ② Fund-management type
 - ③ Corporate-value maximization type
 - ④ Asset-specialization type

Report Summary (2/4)

2. However, digitalization has brought about three changes that led to a decline in the value of these business models:
 - The present information society has reduced asymmetry between investors and asset management firms, resulting in stronger expectations for the alignment between investment performance and management fee.
 - The arrival of an information society and the development of a market infrastructure has narrowed the information gap among investors, reducing arbitrage opportunities.
 - Because of surplus funds and shortened business cycles due to digitalization, investees' needs now go beyond mere capital. Firms are expected for direct contribution to improve value of investee, and the screening of firms has become more stringent.
3. As a result, distinctions between asset management firms are becoming more pronounced:
 - ① Scale-pursuit type: Competitive advantage cannot be obtained unless the fund is among the top tier globally in terms of assets under management.
 - ② Fund-management type: Dealing with continuous changes in investees and strategies, such as ongoing shifts to Illiquid assets.
 - ③ Corporate-value maximization type: Facing stringent screening criteria regarding the ability to improve the intrinsic value of the investee and the sourcing ability.
 - ④ Asset-specialization type: Same as above.

Report Summary (3/4)

III

Business models sustainable in the medium- to long-term

Asset management firms capable of providing value to the capital market could survive.

1. For the time being, securing the means of sustainable procurement of investment capabilities amid changes in the environment is critical for growth.
 - ① The scale-pursuit type can maintain its price competitiveness, as scale-pursuit efforts lead to cost efficiency.
 - ② The fund-management type, ③ the corporate-value maximization type, and ④ the asset-specialization type generally have the following strategic options:
 - Transitioning to a “platform” model and maintaining their competitiveness through the external procurement of operational capabilities (such as through M&As) and the use of technology.
 - Turning into a “boutique” firm by narrowing the list of investees and sharpening efforts to improve asset value.
 - Using the asset-value-enhancement capabilities of the core business for the asset management arm within the same company (this applies to developers, trading houses, etc.).
2. In the long run, only those that add value to the capital market will survive.
 - With respect to traditional assets, firms that have massive assets and the capabilities to provide liquidity, adjust durations, and create asset value, will survive.
 - The creation of a market for emerging assets (such as digital assets) and for idle assets, as well as the creation of value, could be a viable option for asset management firms.

Report Summary (4/4)

IV

GPIF Initiatives

GPIF, from the standpoint of securing long-term returns and a source for pension payouts, must construct an investment chain as a long-term asset manager and create a virtuous circle of risk money to support economic growth.

1. In the short term, the selection of external asset managers must be based on evaluations of sustainability as a business model that can respond to changes in the outside environment and the competitive environment.
2. In the medium- to long-term, efforts must be made to promote asset management firms' maximization of value in the capital market in preparation for future challenges.
 - ① Promotion of the circulation of risk money into high-quality companies and assets.
 - Promotion of ESG investments: the creation of indexes, asset allocations, etc.
 - Passive managers should become more proactive: the creation of a mechanism for engagement and criteria for evaluation of asset management firms, etc.
 - Circulation of risk money into niche and emerging assets: diversified asset allocations, helping market development, etc.
 - ② The nurturing of high-quality asset management firms.
 - The nurturing of long-term-growth investment management firms: introduction of duration-specific allocations, etc.
 - Improvement of the asset owners' capabilities to evaluate asset management firms: the standardization of evaluation criteria, the use of a common platform for a Manager Registration system, etc.
 - Promotion of a business model in accordance with changes in the environment: lower entry barriers for overseas asset management firms, etc.

Agenda

I. Research Objectives

II. Changes in the environment surrounding asset management firms

1. Existing business models
2. Changes in the environment
3. The essence of the evolution of business models

III. Business models sustainable in the medium- to long-term

1. Currently sustainable business models
2. Conversion of long-term values to society

IV. GPIF Initiatives

The Objective of the Analysis Work for This Research

To acquire basic knowledge towards building a sound relationship with asset management firms based on supervision and reciprocation.

Research Objectives

Factors to be considered
in depth

Momentum for structural changes at asset management industry

- Global efforts to strengthen FD* and secure transparency put long-term downward pressure on commission fee.
- Manufacturing and distribution integrated model, which has been dominant in domestic market, is being abandoned.
- Asset management firms have been polarized into two types: whether pursuing scale or offering competitive products.
- The expectation of risk money providers (as promoted by the Japan Revitalization Strategy) is growing for asset management firms to directly revitalize the direct finance by providing investment products.

Objectives of this assignment

- Care must be taken to avoid the inherent risks associated with particular firms when using asset management firms to receive returns unique to individual funds.
- Corporate characteristics of asset management firms and their risks must be understood along with the investment strategies and expected performance of each fund.
- The potential impact of an asset management firms' orientation and governance should be identified with respect to the following three criteria:
 - (1) Business strategy
 - (2) Revenue/cost structures
 - (3) Incentive models

GPIF situations

- Most of the Fund is invested in traditional four assets and managed passively, as super-long-term stable growth is imperative.
- An investment strategy that relies exclusively on the existing allocation method has limited potential, considering the aging population and the resulting challenge in the pension finance.
- GPIF should take advantage of broad knowledge of asset management firms in order to control risks and invest in high-quality funds.

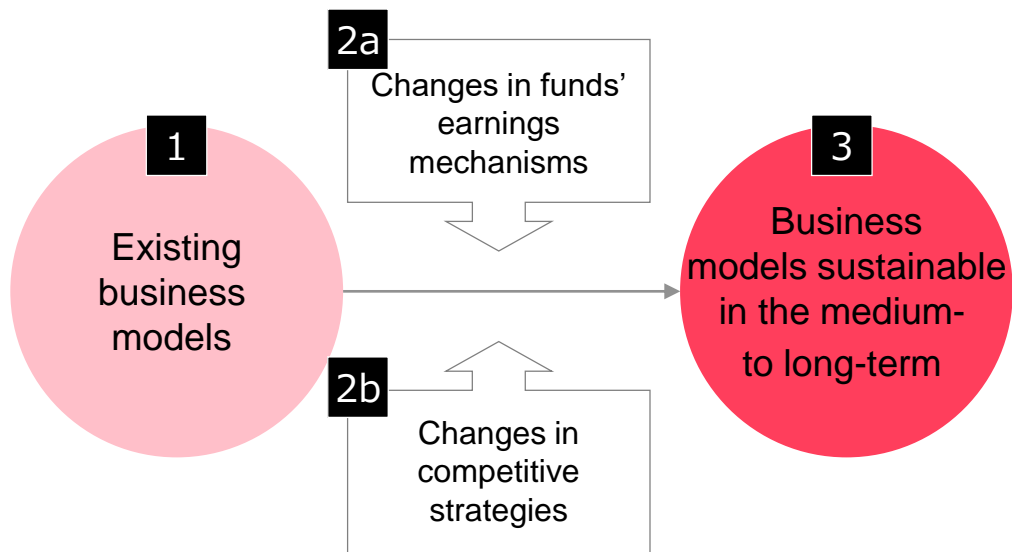
1. Strengthening assessment capabilities based on the asset management firms' understanding of the characteristics of companies.
2. Acquiring suggestions for building a reciprocal relationship with asset management firms.

*FD: Fiduciary Duty (An obligation of a trustee, entrusted with funds based on customer trust, to act in the best interest of the customer).

Research Approach: Concept

The asset management industry is facing a turning point on the global scale due to the digitalization of society, advancements in analysis technology, and changes in capital flow. This report will forecast longer-term trends by focusing on the impact of changes to the external environment and the characteristics of business models with respect to three constituent elements.

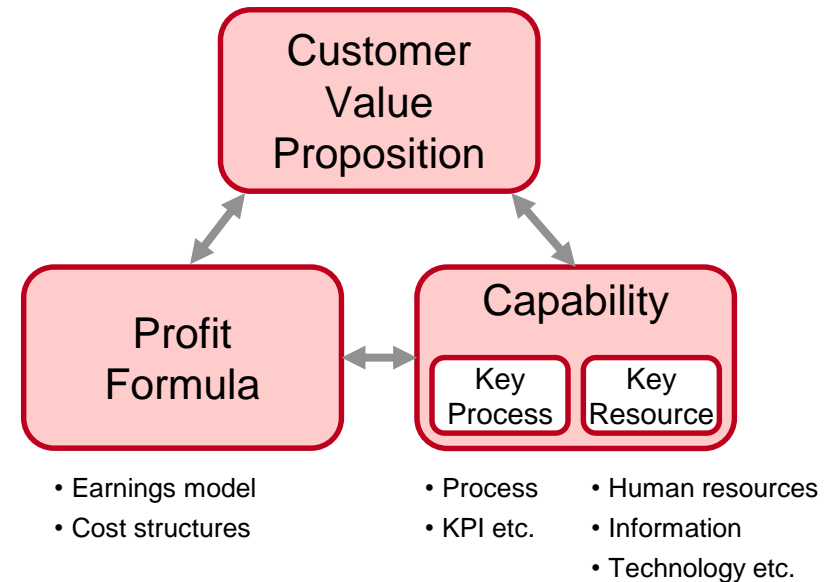
Research approach



- Will examine the impact of the digitalization of society and changes in the capital flow from two aspects:
 - Impact on the funds' earnings model
 - Impact on the competitive environment.
- Will gain insights on how these changes will prompt conversions to business models sustainable in the medium- to long-term.

Business model elements*

“The Four Box Business Model”
(Johnson’s framework)

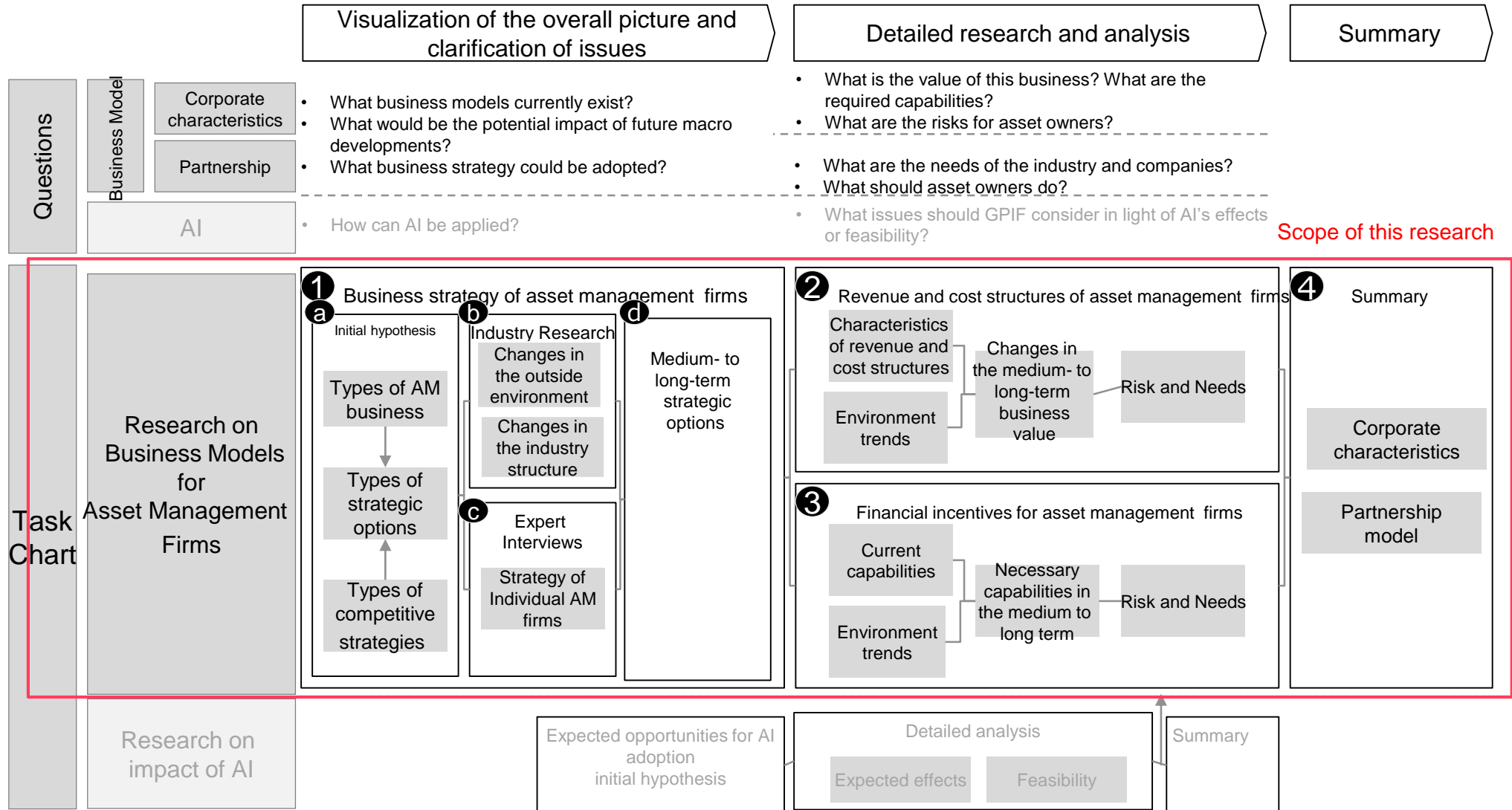


The report will break down major business models into Customer Value Propositions, Profit Formulas, and Capabilities for the medium-term to gain long-term insights.

*Source: Johnson, *Seizing the White Space*, Harvard Business Press (2010)

Research Approach: Process

First, the overall picture will be determined based on changes in the environment. Detailed research and analysis for each business format will follow.



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1. Currently sustainable business models
2. Conversion of long-term values to society

IV. GPIF Initiatives

1. Current Business Models

Business Models by Type | Overview

The current business models of asset management firms are characterized by two elements: the method of earning returns and the method of gaining competitive advantages. These business models are generally classified into five types, based on the two perspectives.

Market investment type			Asset handling type			Business derivative type		
Scale-pursuit type			Fund-management type			Corporate-value maximization type		
Asset-specialization type								
Market Growth	Price Formation	Underlying Asset Value	Market Growth	Price Formation	Underlying Asset Value	Market Growth	Price Formation	Underlying Asset Value
<p>Method of earning return</p> <ul style="list-style-type: none"> Focus is on low work load asset/methodologies Low management costs lead to strong performance. Pursues additional profits through stock lending, etc., in exchange for the liquidity. 			<ul style="list-style-type: none"> Focus is on additional profit through understanding the market. The capabilities of investment professionals are directly tied to performance. 			<ul style="list-style-type: none"> Focus on maximizing investee's corporate value. Pursues transaction-related performance through huge gains at financial events. 		
<p>Method of gaining competitive advantage</p> <ul style="list-style-type: none"> Price leadership using economies of scale. Less reliant on specific persons in investment through rules and automation. 			<ul style="list-style-type: none"> Competence of investment professionals. Performance-based incentives to retain capable investment professionals. 			<ul style="list-style-type: none"> The ability to assess potential value. The ability to provide hands-on support to maximize value. Incentives closely linked with performance. 		
<p>Major products</p> <ul style="list-style-type: none"> Passive. Smart Beta. 			<ul style="list-style-type: none"> Active. Hedge funds. Alternatives (financial products). 			<ul style="list-style-type: none"> VC. Buyout. Turnaround/distressed. 		
						<ul style="list-style-type: none"> Real estate. Infrastructure. 		
						<p>(In addition to having the same characteristics of the four types on the left, it pursues a synergy with the company's core business.)</p> <ul style="list-style-type: none"> Insurance companies' asset management operations. Real estate companies. Infrastructure companies. 		

1. Current Business Models

Method of Earning Return | Market investment Type

Market-investment type funds require the ability to identify earnings opportunities by detecting potential market growth and price distortions, as well as the ability to take investment positions and achieve returns by executing transactions.

Method of Earning Return			Sources of returns			Required capabilities			
						Identify profit opportunities	Earn returns		
A	Scale-pursuit type	1	Market-average-tracking type	Creates a market portfolio, acquires “market beta” by tracking benchmarks.	Market Growth	Price Formation	Underlying Asset Price	-	Efficient operations that make low-cost management possible.
		2	Rule-based alpha-acquisition type	Acquires “market alpha” by adding universal explanatory variables of risk-return profiles.	Market Growth	Price Formation	Underlying Asset Price	The ability to research and develop universal explanatory variables of risk- return profiles.	Efficient operations that make low-cost management possible.
B	Relative earnings	1	Sector-specific investment type	Earns returns by allocating assets to growing regions and sectors based on macroeconomic trends.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze the macro environment, such as economy, interest rates, and exchange rates.	-
		2	Stock-specific investment type	Earns returns by making investment decisions on individual stocks based on the company’s intrinsic value and growth evaluations.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze potential growth by considering companies’ intrinsic value and industry trends.	-
	Absolute earnings	3	Absolute-earnings pursuit type (macro)	Earns returns by forecasting market movements based on money flows, sentiment and macroeconomic trends.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze structural changes in macroeconomic environment.	The ability to manage positions.
		4	Absolute-earnings pursuit type (stocks)	Earns returns by identifying cheap/expensive individual stocks and taking both long and short positions.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze potential growth by considering companies’ intrinsic value and industry trends.	The ability to manage positions.
		5	Individual-stock-spread type	Earns returns by spotting stocks that are moving in opposite directions, and taking both long and short positions.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze correlation among stocks.	The ability to manage positions.
		6	Risk-arbitrage type	Forecasts specific events, such as M&As, to earn from price differences before and after the events.	Market Growth	Price Formation	Underlying Asset Price	The ability to quickly identify price gaps and foresee the realization of events.	The ability to manage positions.
		7	No-risk arbitrage type	Earns returns from a temporary price gap of stocks which converge over time and takes both long and short positions.	Market Growth	Price Formation	Underlying Asset Price	The ability to quickly identify price gaps.	The ability to manage positions, execute operations quickly and efficiently.

1. Current Business Models

Method of Earning Return | Asset handling Type

Asset handling type funds require the ability to evaluate, obtain the potential value of investee companies, assets, and achieve that value.

Method of Earning Return

Sources of returns

Required capabilities

C	Corporate-value maximization type								
	Capital needs	1	Financial-evaluation type	Provides funds through stocks, bonds, mezzanine funding, etc. in response to funding needs, and earns returns from increases in yields and the corporate value.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze potential growth based on the company's intrinsic value and industry trends.	-
		2	Future-value evaluation type	Discovers potential value of early-stage enterprises, promotes growth through risk money to earn returns.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze growth potential for individual early-stage companies.	-
	Management needs	3	Advice/supervision type	Commits to management by acquiring equity, provides advice and supervision, and improves corporate value and earn returns.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze potential growth based on the company's intrinsic value and industry trends.	The ability to provide management advice and supervision; the ability to communicate and exert influence.
		4	Function-provision type	Provides functions such as management knowledge, operation processes, sales channels, as well as capital, to improve corporate value and earn returns.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze potential growth based on the company's intrinsic value and industry trends.	The ability to provide specific functions (distribution, financial management, business development knowledge, etc.).
		5	Scale-advantage type	Invests in companies in the same industry and geographical locations to bundle value chains and procurement channels, and gains economies of scale to improve corporate value.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze potential growth based on the company's intrinsic value and industry trends.	The ability to benefit from economies of scale by unifying procurement channels of investees.
	Rehabilitation	6	Management-turnaround type	Supports companies whose market evaluation has declined and helps them improve their corporate value to earn returns.	Market Growth	Price Formation	Underlying Asset Price	The ability to analyze potential growth based on the company's intrinsic value and industry trends.	The ability to reorganize operations; the ability to secure exits through sales.
		7	Business-liquidation type	Earns returns by liquidating companies that are in financial trouble or in industrial restructuring.	Market Growth	Price Formation	Underlying Asset Price	The ability to evaluate the residual value of companies and operations.	The ability to secure exits through sales.
	D	Real-asset type							
		1	Capital-needs type	Fulfills the needs for capital, to create and manage assets and earns returns through income gains and capital gains.	Market Growth	Price Formation	Underlying Asset Price	The sourcing and negotiating ability based on specific expertise and networking.	The ability to secure exits through sales.
		2	Management-needs type	Fulfills management needs by creating a system for asset management and carrying out actual management tasks to earn returns through income gains and capital gains.	Market Growth	Price Formation	Underlying Asset Price	The sourcing and negotiating ability based on specific expertise and networking.	The ability to maintain assets and monetize; the ability to secure exists through sales.

1. Current Business Models

Method of Gaining Competitive Advantage

The method of gaining competitive advantage is determined by the combination of six options of competitive strategies and two options of governance.

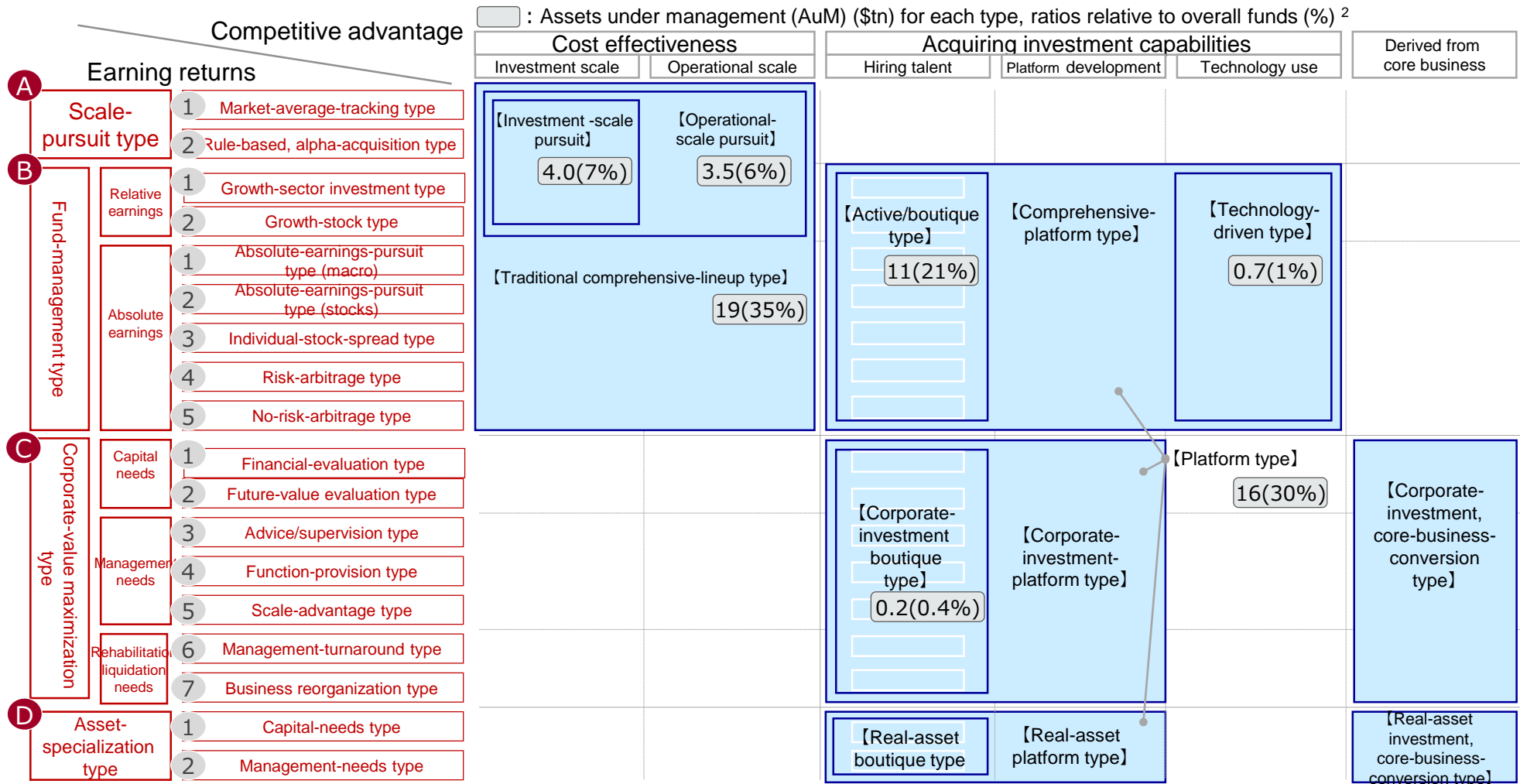
Method of gaining competitive advantage



1. Current Business Models

Business Models by Type | Details

There are 12 business models based on the methods of earning returns and acquiring competitive advantage, as shown earlier.



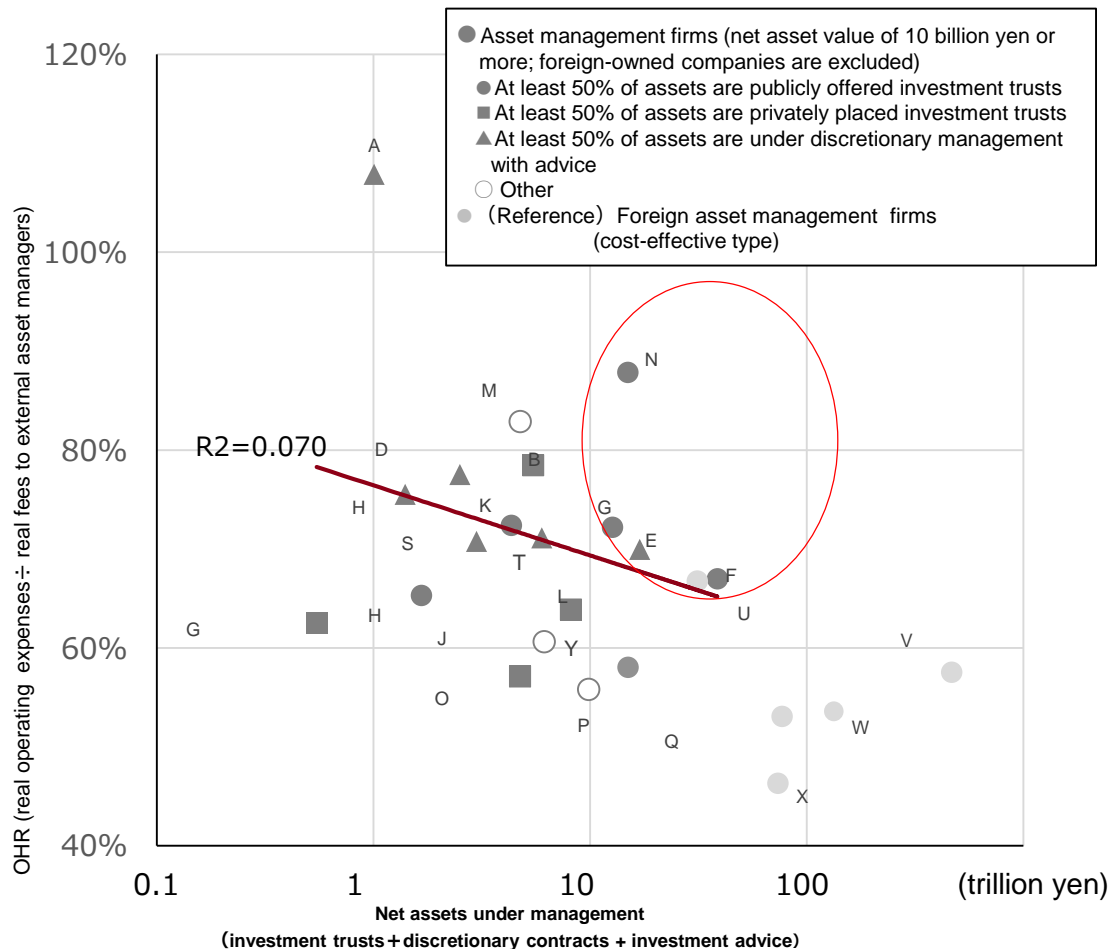
¹ Assets under management for firms that fall under each of these types are based on data from Top 400 Asset Managers (2017). Top companies that manage some 80% of the \$68 trillion in total assets have been selected, and their figures have been combined. The ratios relative to the overall funds were obtained by dividing the figure for each type by \$55 trillion (about 80% of \$68 trillion). These ratios do not add up to 100% because of rounding.

1. Current Business Models

【Supplemental Data】 Characteristics of Japan's Asset Management Industry

Japan's major asset management firms, which fall under the comprehensive lineup category, are not fully benefitting from economies of scale. They must transform their operations so that they will be able to withstand declining management fees.

Operation efficiency of Japan's asset management firms



- In Japan, the asset management industry has long been led by distributors. For this reason, many funds have mushroomed as these companies sought to earn sales commissions.

【Reference】Publicly offered investment trusts in Japan, the U.S. and the U.K. (end-2016)

Country	Fund sold	AuM (Trillion yen)	AuM / Fund sold (100 million yen)
Japan	6,060	96.6	159.5
U.S.	9,782	2,209.6	2258.9
U.K.	2,802	177.0	631.5

- As a result, comprehensive asset management firms with the highest amount of assets under management are not necessarily benefitting from economies of scale.
- Their profitability will inevitably fall along with a decline in management fees. Thus, these companies face an urgent need to adopt a business format that can benefit from economies of scale.

1 dollar = 100 yen

Source: official information based on IR reports of each firms

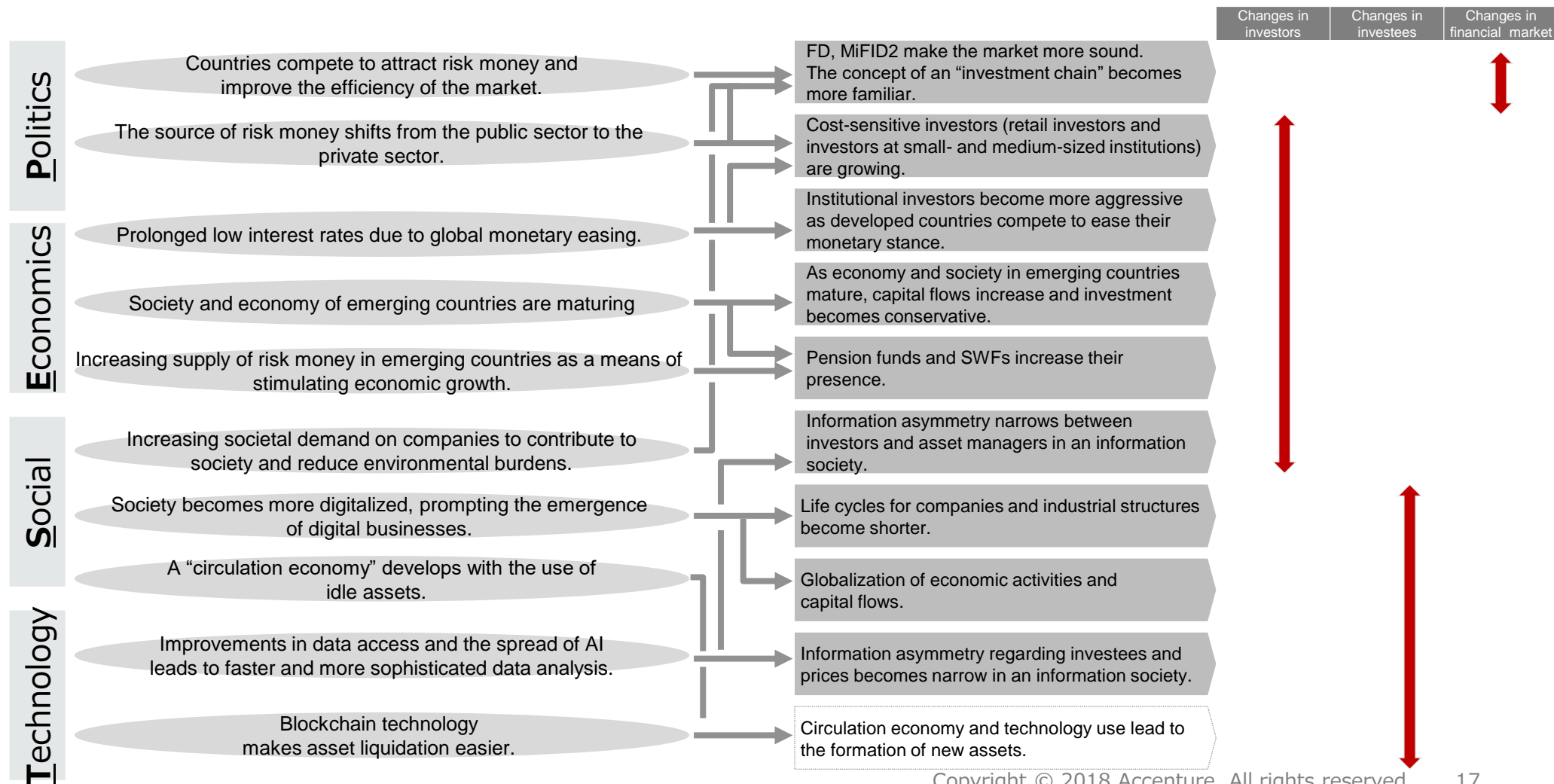
2. Changes in the Environment

Macro Trends

As a macro development of the asset management industry, capital flows are changing on a global basis with the base of asset owners growing and their demand changing, and these are transforming the asset management business and its related area.

Macro Trends

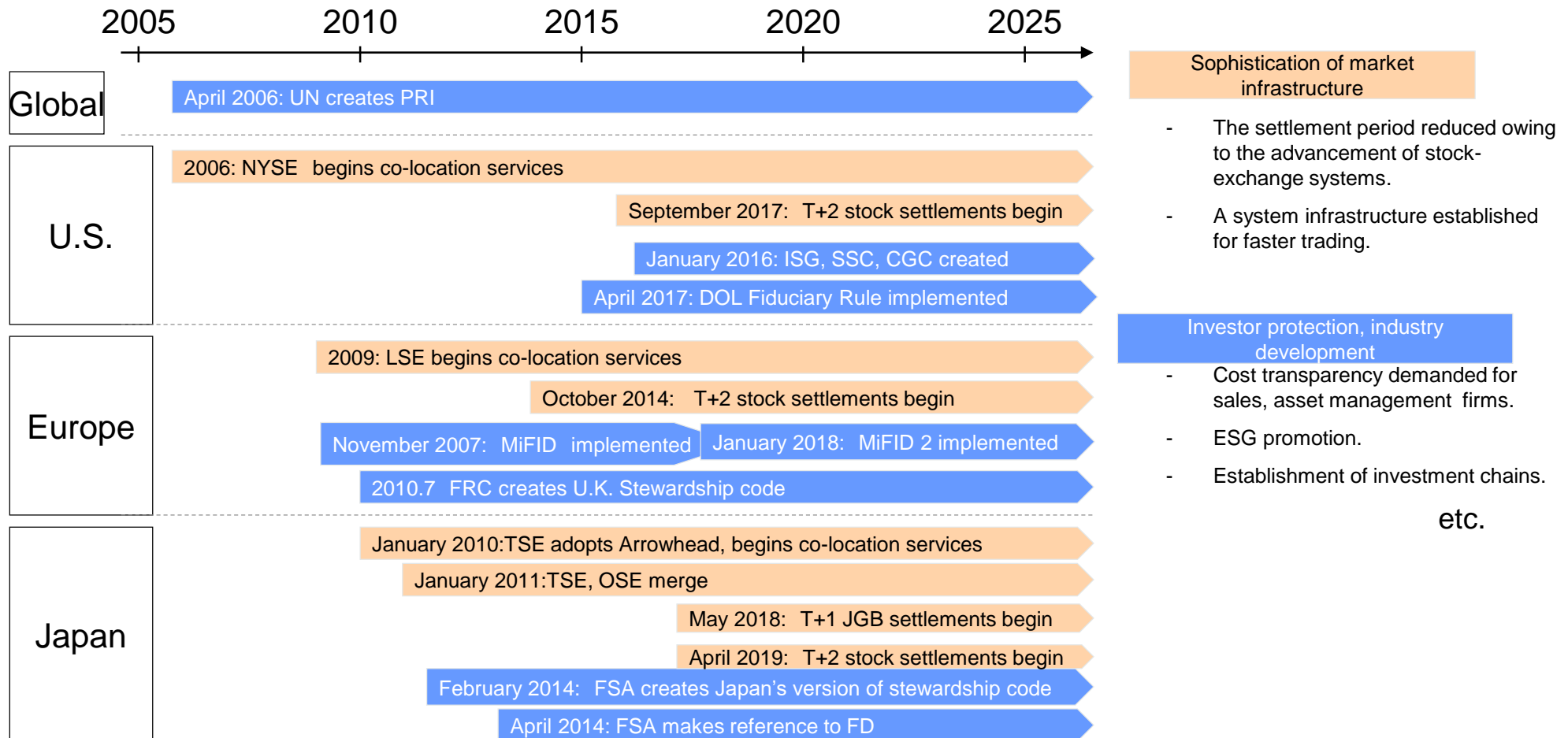
Changes in asset management -related developments



2. Changes in the Environment

Changes in the Financial Market

Competition is escalating between international markets for investor funds and among investors for higher returns, promoting advancement in market infrastructure and institutional arrangements. Societal demand has also led to the creation of regulatory and institutional measures designed to protect investors and nurture the industry. These developments are impacting the earnings environment and the industry structures.



2. Changes in the Environment

Changes in Investees | Shortened Business Life Cycles

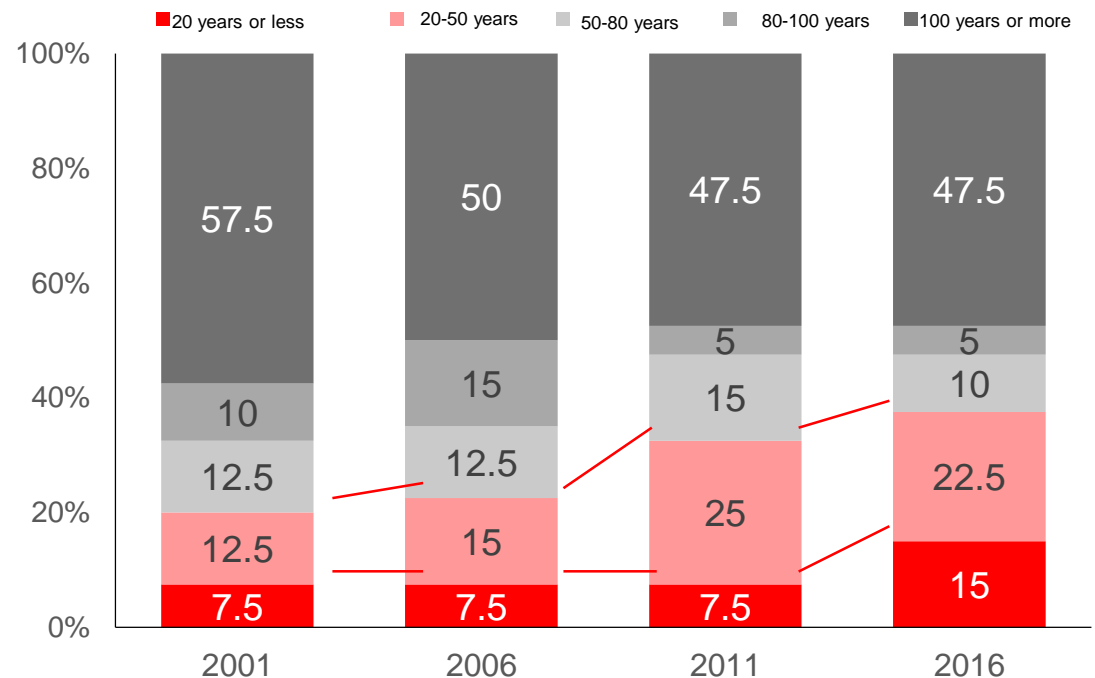
The progress of digitalization has weakened the “economies of scale” that can be achieved by the size of operations and assets. The previous driving force of corporate competitiveness is being replaced by new competitive rules driven by information. Along with this development, companies with a new type of competitive advantage in customer interface and other fields are being evaluated more favorably. Business life cycles are becoming shorter as a result.

Digitalization changes competitive rules

- As products become digitalized, the effects of economies of scale have been weakened because of a decline in marginal costs.
- Customer value has shifted to “results and experience” from “products,” changing the competitive environment for the industry.
 - Industry boundaries have been blurred as the market is redefined from customers’ perspectives.
 - The biggest source of competition is customer interface and the ability to understand customers. The competitive advantage of “assets” has declined.

Shortened business life cycles

Years of existence for the biggest 40 companies in the world in terms of market valuation ¹



Non-traditional companies become more important in the portfolio.
⇒ Need for a corporate evaluation method that does not rely on existing assets or track records.

¹ Based on Capital IQ

2. Changes in the Environment

Changes in Investees | Formation of New Assets in Circulation Economy with Technology Use

Blockchain technology is attracting attention to formulate a secondary markets for new assets. Blockchain technology can lead to drastic changes in transaction costs, reducing the hurdle for the formation of a secondary market for niche assets. Its use is becoming widespread, with Nasdaq establishing a platform for the trading of unlisted companies.

Company Overview

Name	Nasdaq
Headquarters/ establishment	U.S. / 1971
Employees/ earnings	About 3,700 / \$499M
Primary Business	• The world's biggest stock market for startups
Partners	Chain (Provider of blockchain platform)

Services

NASDAQ (stock trading platform)

- A market where shares of unlisted companies can be traded between selected shareholders. Employees of participating companies can quickly trade stocks that have been provided as part of their compensation package.
- Companies that do not intend to list their shares can have their stock traded within a close environment and improve their liquidity.

Nasdaq Private Market

A closed market limited to shareholders in participating companies



Provides
trading
platform



Fees

Platform users

- 7 companies (*As of February 2017)

Tango

Shazam

eneRGi

The Motley Fool

Shuttersong

RENOVA

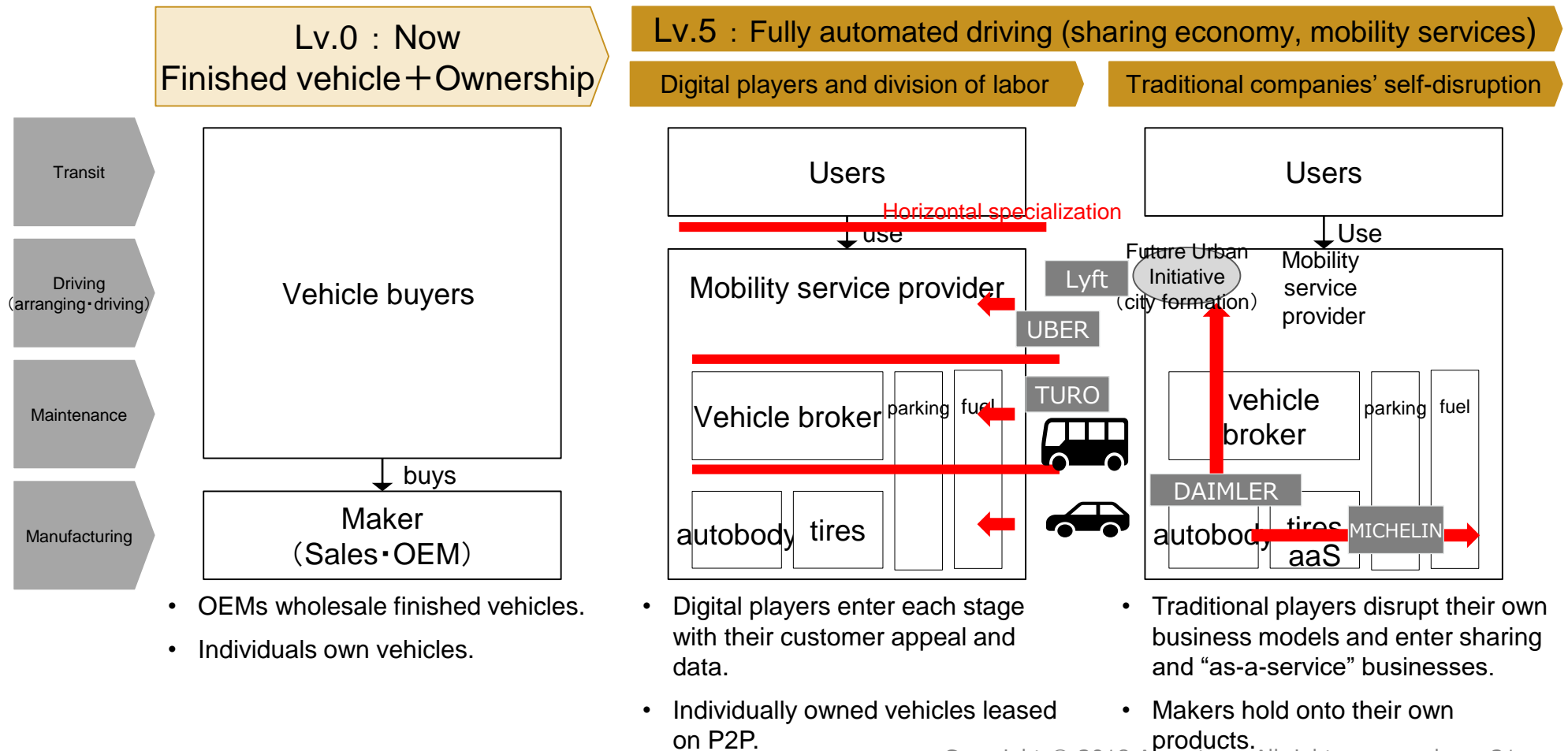
Blockchain technology can create a secondary market with limited participants and increase the liquidity for niche assets.

2. Changes in the Environment

Changes in Investees | Formation of New Assets in Circulation Economy with Technology Use

New business models that will be created as a result of the digitalization are drastically transforming the concept of “assets.” In the “sharing business”, houses, cars and other items that were once considered individual property have become cash-generating “assets.” The owners of these assets are turning into “individual enterprises.”

Sharing business causes shifts in asset owners from “individual persons”

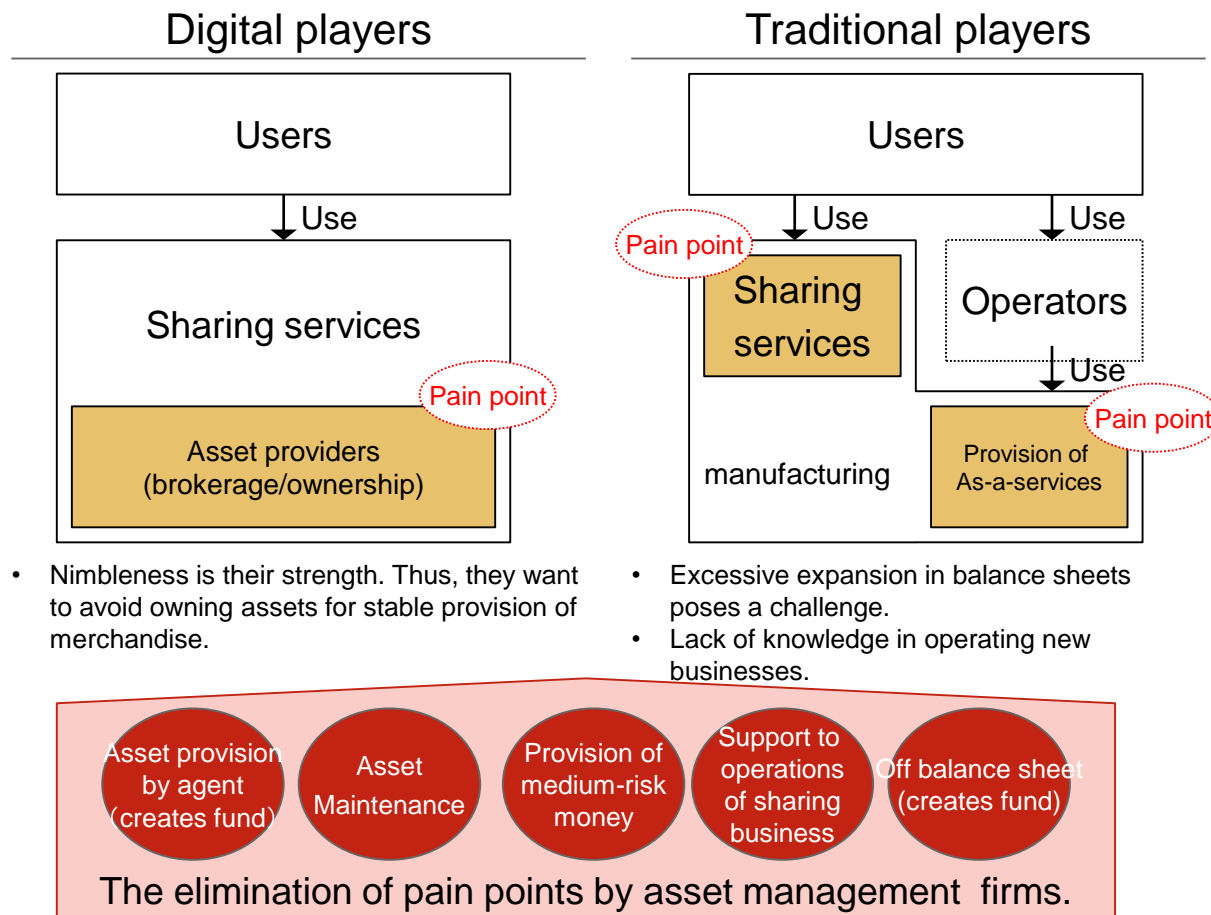


2. Changes in the Environment

Changes in Investees | Formation of New Assets in Circulation Economy with Technology Use

Sharing-service providers need “balance sheets supplement”, “risk money provision” and “management support” as usage, ownership and maintenance of goods are unbundled. The sharing business has much in common with corporate or infrastructure investments. This creates an opportunity for asset management firms to enter the market.

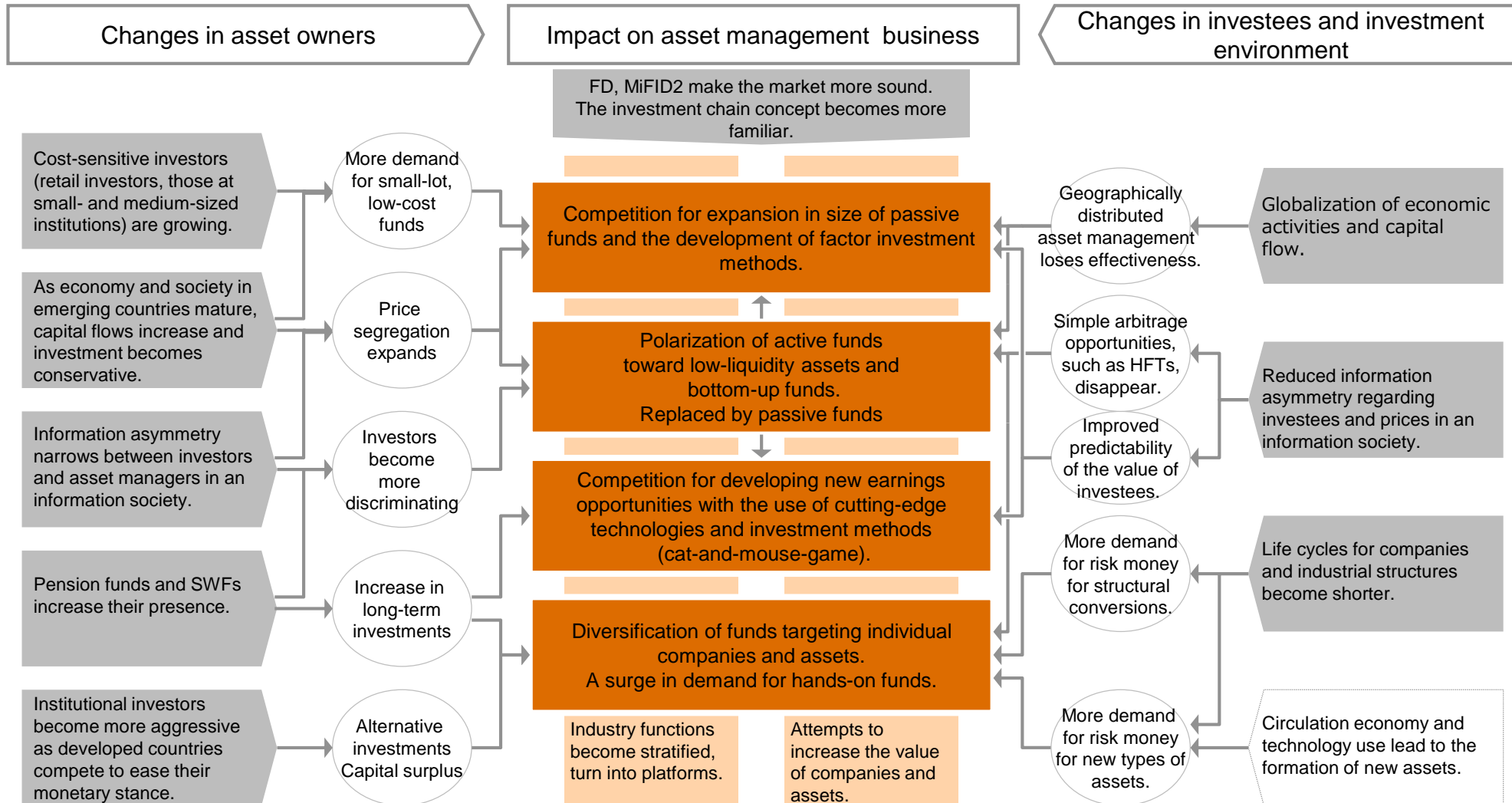
Catalyst model by asset management firms



2. Changes in the Environment

2 Changes in the Environment: Related to AM Businesses

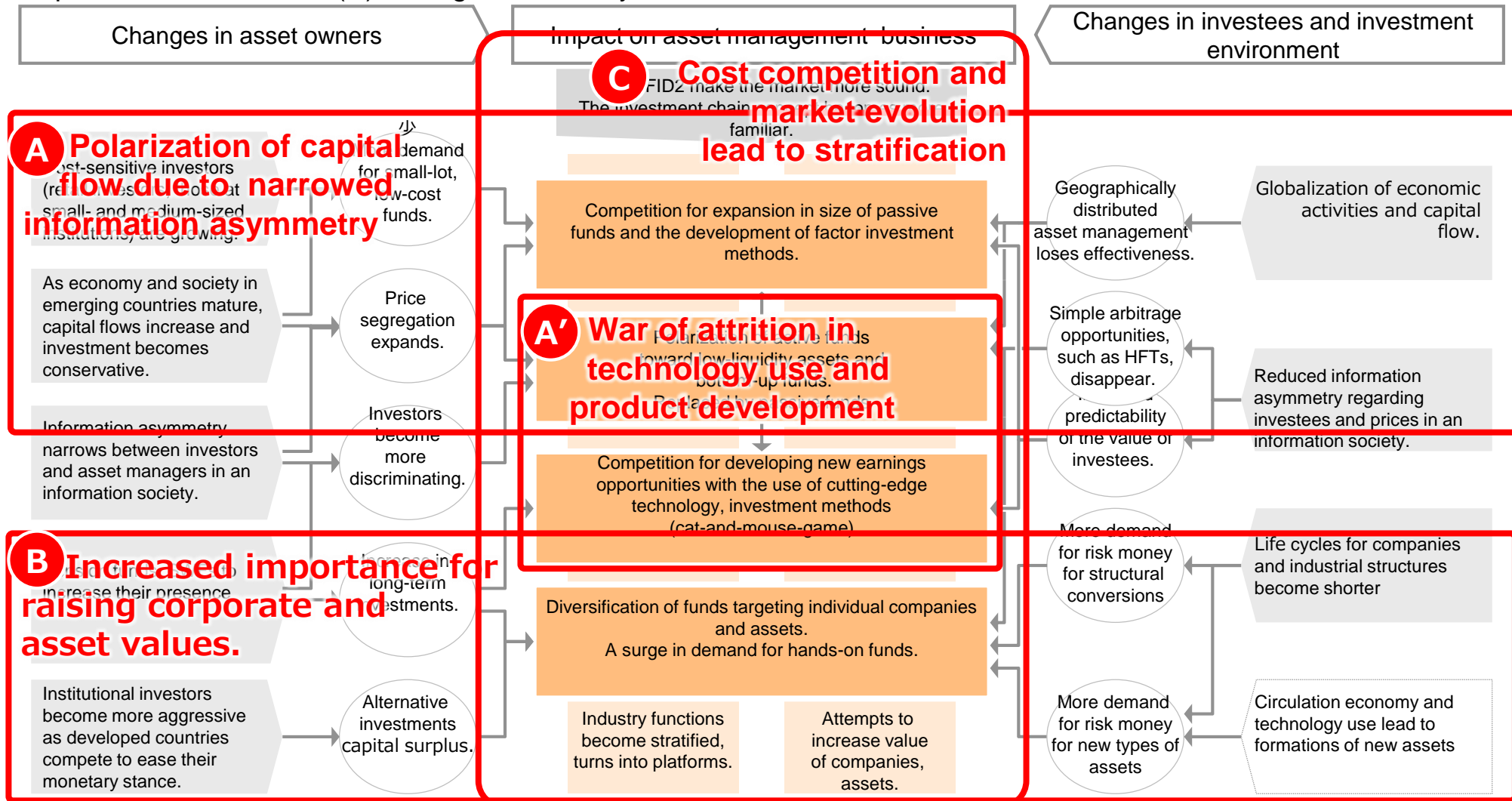
Changes in both asset owners and investees and investment environment, and changes in environment within asset management industry (regulations, etc.) is affecting structural changes in investor behavior and the competitive environment for asset management.



2. Changes in the Environment

2 Changes in the Environment: Related to AM Businesses

The scenario for changes in the environment of the asset management industry can be understood as “3 (+1).”
 (A): changes in the fund flow from investors; (A’): accompanied progress in technology use; (B): changes in value provided to investees; (C): changes in industry structures.



2. Changes in the Environment

2 Changes in the Environment: Related to AM Businesses

These changes in the environment are taking place simultaneously, promoting structural changes in the asset management industry in pursuit of effective competitive strategies and earnings.

The scenario for environmental changes	Impact on asset management business
A Polarization of the capital flow due to narrowed information asymmetry.	<ul style="list-style-type: none">• Accelerated expansion in size and scope of rule-based investment (passive/smart beta).• Asset owners to choose funds more proactively, creating a linkage between performance and fees.
A' War of attrition in technology use and product development.	<ul style="list-style-type: none">• Technology investments to create new arbitrage opportunities and spur competition for development of new methods, such as quants trading.• Active funds to converge at low-liquidity assets and bottom-up management where information asymmetry still exists.
B Increased importance for raising corporate and asset values.	<ul style="list-style-type: none">• Funds aimed at creating asset value through hands-on support will continue to generate value.
C Cost competition and market evolutions lead to stratification.	<ul style="list-style-type: none">• Industrywide efforts to streamline operations through horizontal division of labor.• Asset management firms to become a circulation-economy platform.

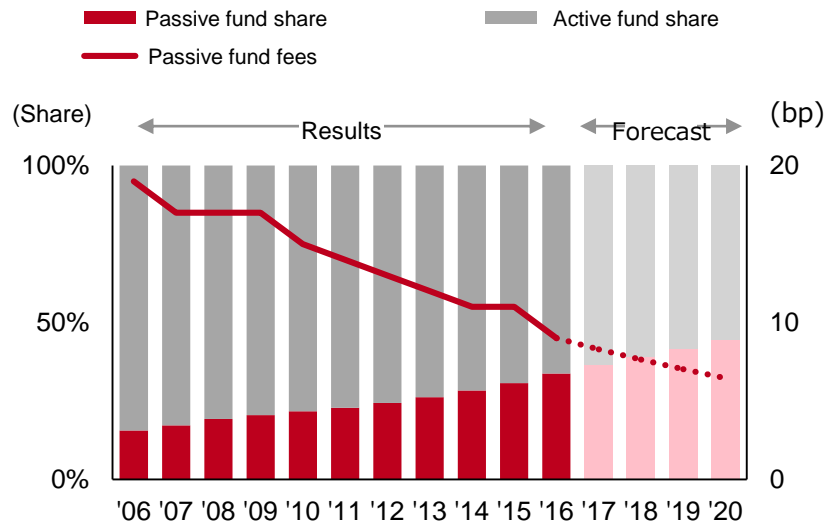
2. Changes in the Environment

A Polarization of Capital Inflows due to Narrowed Information Asymmetry

With investor needs becoming more sophisticated and the mechanism for earning returns transforming, asset management firms are facing polarization. They must either seek cost-efficiency with the use of factor investments that less rely on a specific person, or transition to performance-based business models.

Polarization of capital inflows

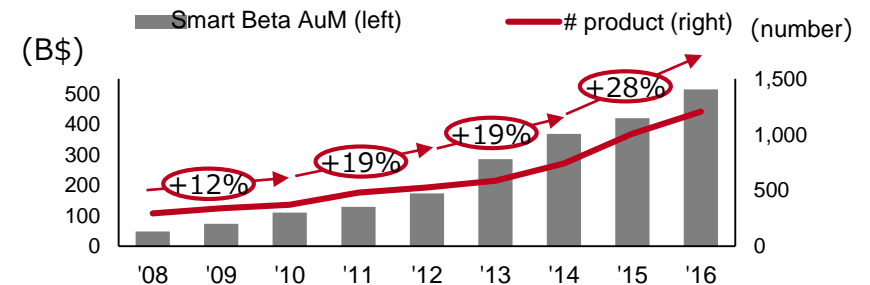
■ Share/fees for passive, active funds (U.S.)



The U.S., which leads the world in investment trusts, has already seen a polarization taking place with a decline in passive fees. The polarization could accelerate as investors' preference for passive funds expands globally.

Factor funds replacing active funds

■ Smart beta AuM and number of products (global)



The AuM and the number of smart beta funds are rapidly increasing;

Active funds transitioning to a performance-based fee system

Fidelity

Fees for active equity funds have been linked with performance globally (2017.10.3)

Allianz

Established new funds in the U.S. to prepare for a transition into a performance-linked system (2017.12 -)

GPIF

Fees for trustee active funds shifted to a performance-linked model from a fixed system (FY2018 -)

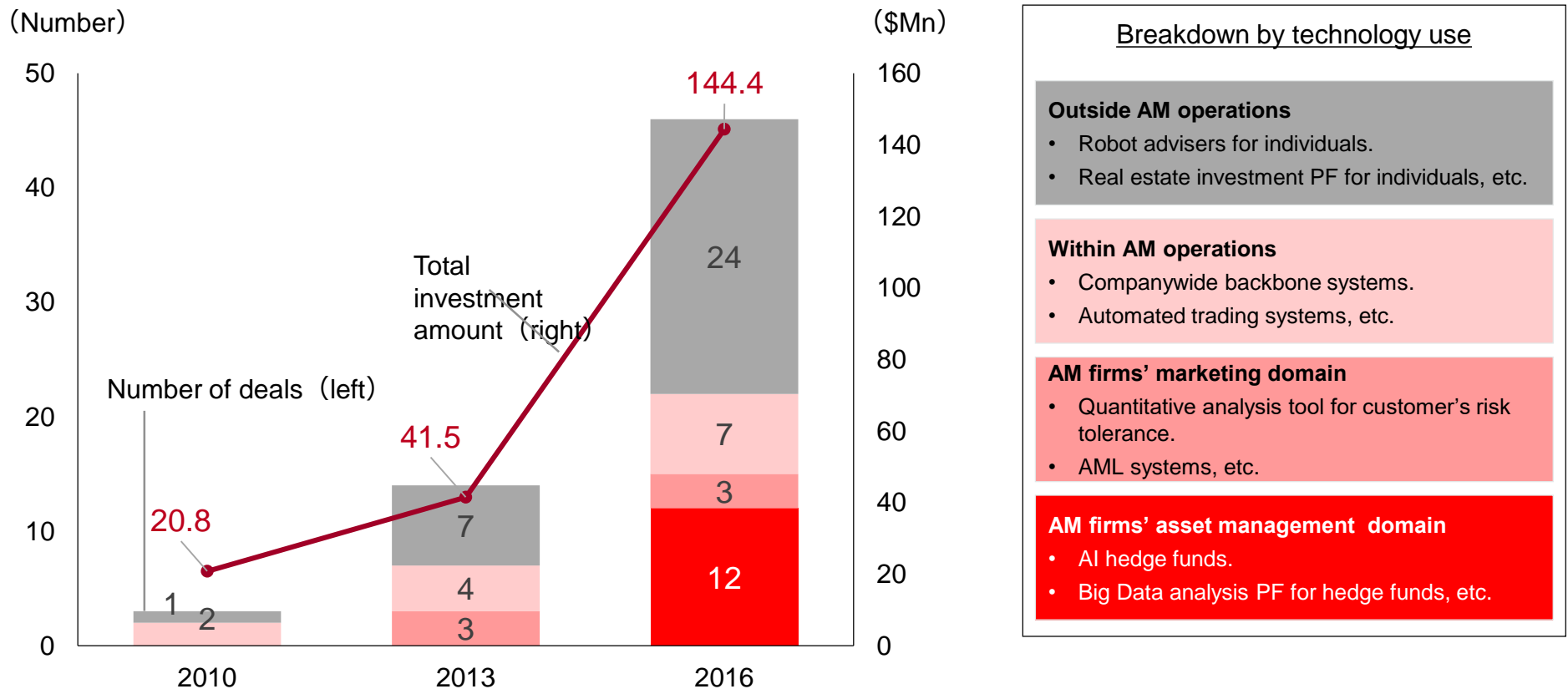
More active funds may adopt a performance-based fee system at the request of asset owners.

2. Changes in the Environment

A' War of Attrition in Technology Use and Product Development

Operations and marketing used to be the main battleground for the use of cutting-edge technology in the AM industry. In recent years, the use of technology has been rapidly expanding to frontline areas such as research. Firms must make efforts to differentiate themselves by developing new methods or creating new earning models.

Number of deals and total investment amount of startup investments related to the AM industry ¹



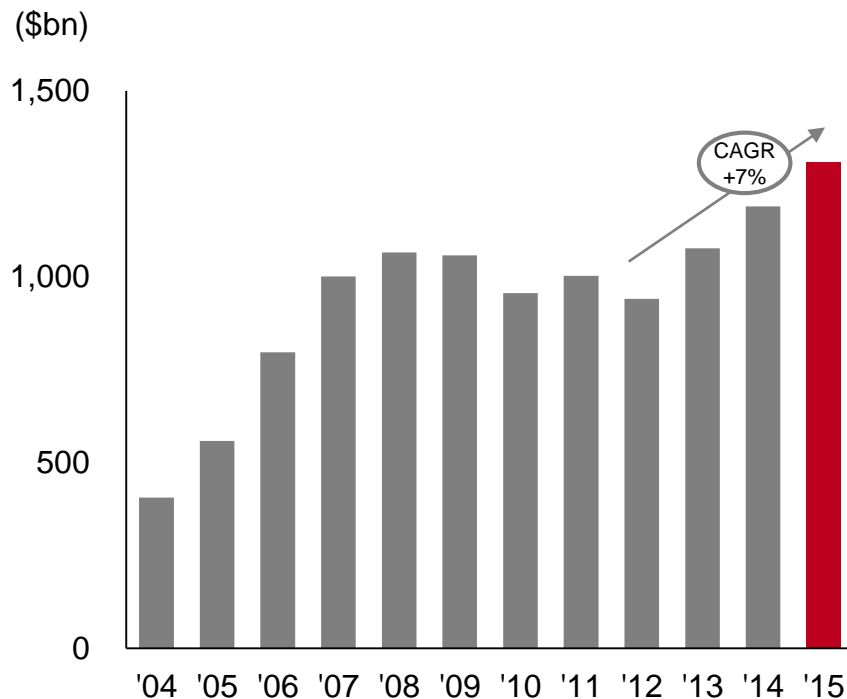
The number of deals is increasing in the areas of asset management and research with respect to startup investments.

2. Changes in the Environment

B Increased Importance for Raising Corporate and Asset Values

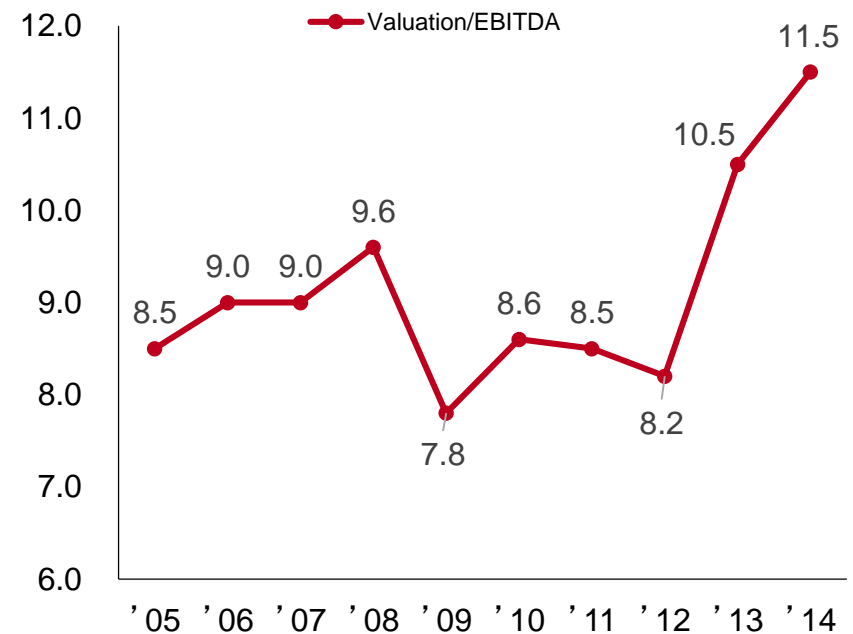
A global money glut has affected investor capital in such a way that entry prices for corporate investments have gone up. For investment funds, this means that entry hurdles are rising, making it difficult for them to earn returns without raising the value of the investees.

Dry powder amount in PE investments (global)



The amount of dry powder has reached a record in recent years, with surplus funds continue to be available for investment.

Corporate investment multiple (U.S.)

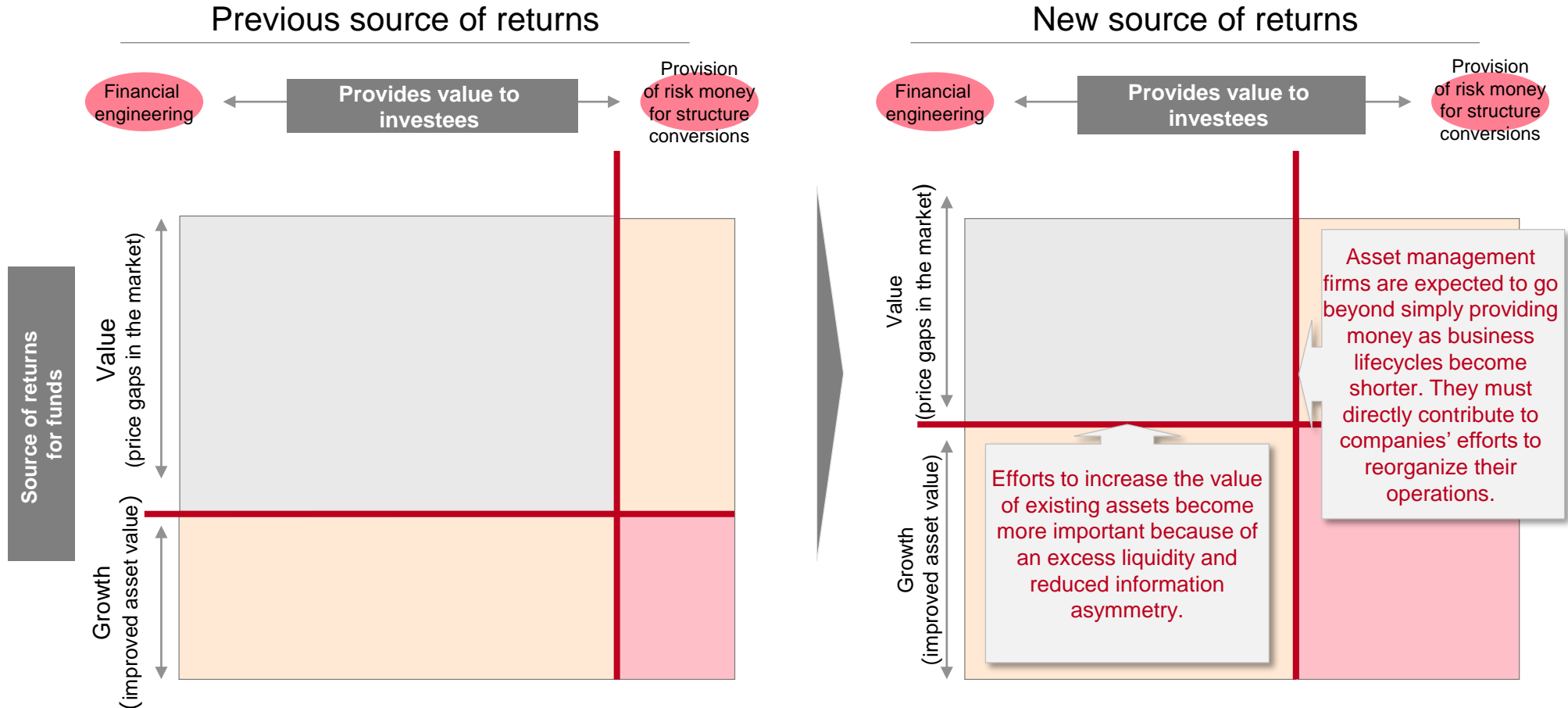


With surplus investment funds, corporate investment valuations have surged and have raised entry hurdles.

2. Changes in the Environment

B Increased Importance for Raising Corporate and Asset Values

Asset management firms are expected to go beyond providing mere capital as business lifecycles become shorter. They must contribute to companies' efforts to solve management challenges and help them reorganize their operations.



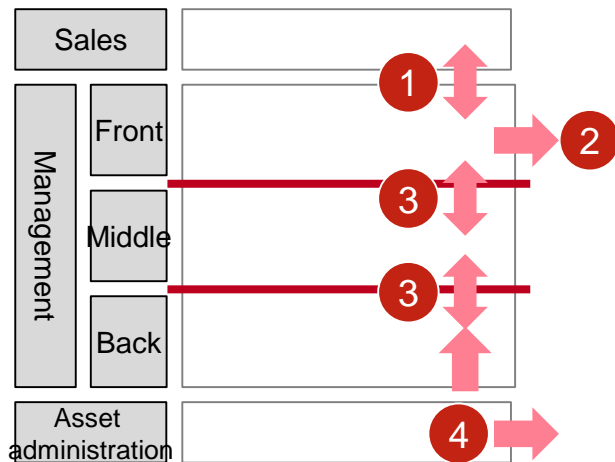
2. Changes in the Environment

C Cost Competition and Market Evolution Lead to Stratification

In the AM industry, increasing cost pressures are prompting efforts to improve efficiency through scale and through the outsourcing of non-competitive operations. Expectations are also growing for the entire industry to serve as an “industrial infrastructure” to circulate risk money and provide management resources and the importance as an “economic circulation platform” is increasing.

Pursuit of scale through integration

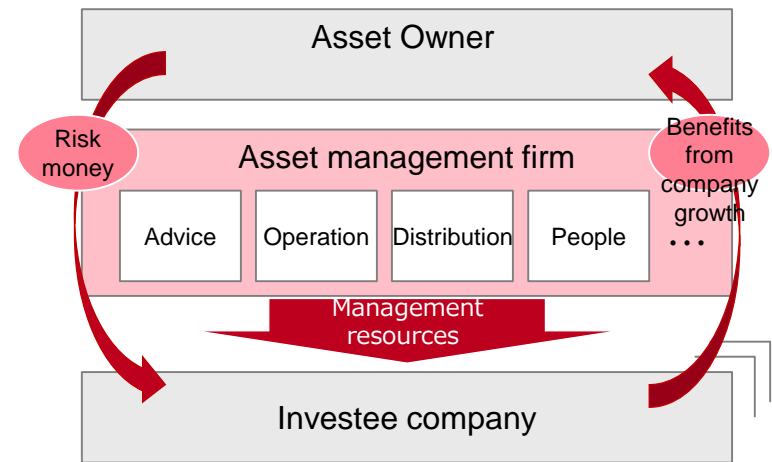
- Separation of production and sales through strengthened FD.
- Increasing cost pressure.
 - Increasing demand for cost transparency due to MiFID II.
 - Increasing number of highly cost sensitive investors.



- 1 A complete separation of production from sales against the backdrop of more stringent fiduciary duties (development of an open architecture).
- 2 Integration of management firms to pursue scale; integrations of management functions within the same group.
- 3 Outsourcing of middle and back operations and integration of IT systems to make administrative tasks more efficient.
- 4 Integration of custody banks, the emergence of back office operations providers.

Industrial infrastructure centered on asset management firms

- Growing expectations for funds to serve as an “industrial infrastructure” as the investment chains concept becomes more familiar.
- Diversified needs of investee companies as corporate and industrial change cycles become shorter.

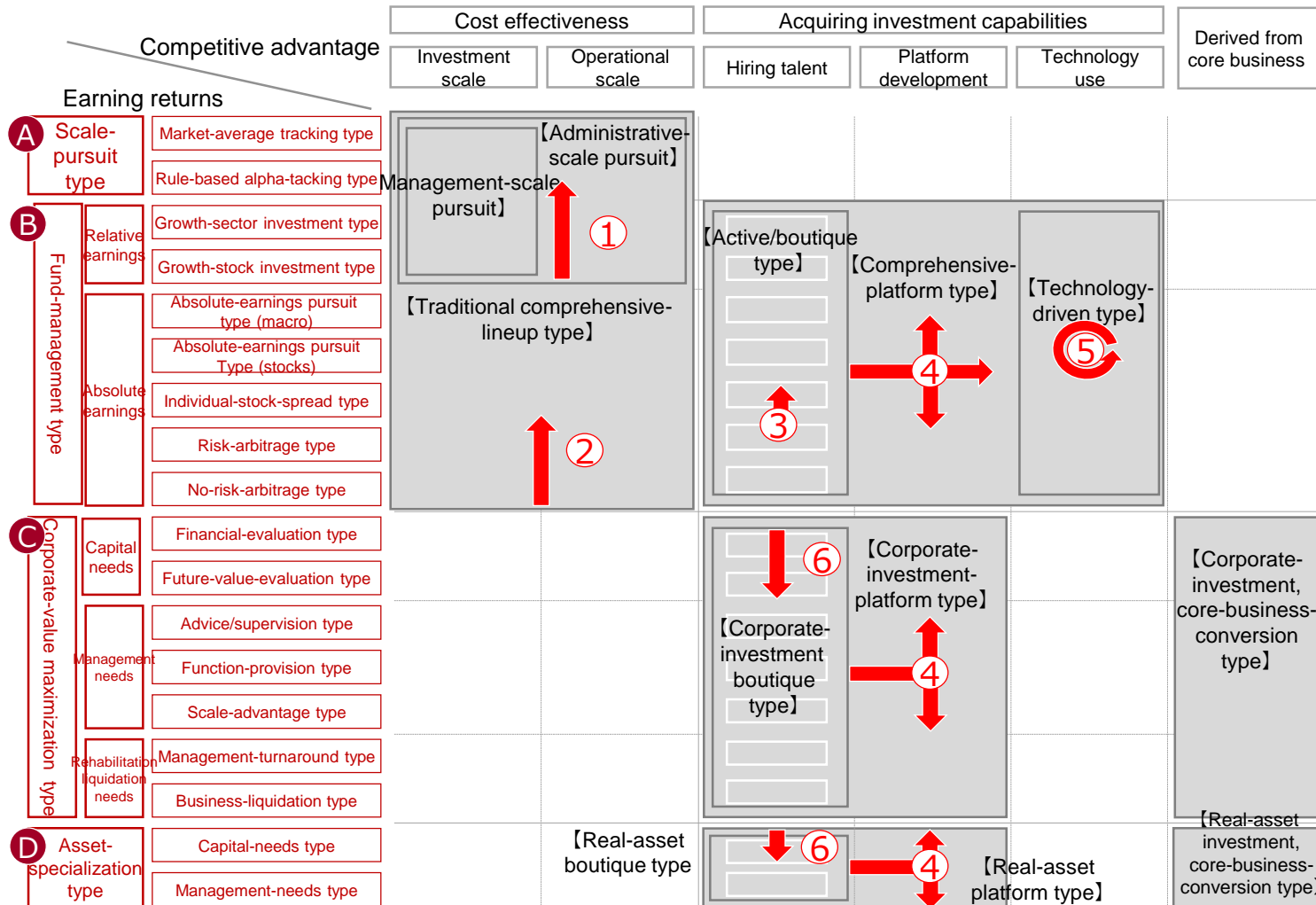


- Circulation of money through funds.
- Provision of advice, people and other management resources to increase the value of the investee companies and assets, rather than merely providing money.

3. Essence of the Evolution of Business Models

Changes in Business Models along with Changes in the Environment

As a result of changes in the environment as seen in the previous section, six major developments are expected to accelerate in the asset management industry: a scale expansion in pursuit of cost efficiency (① and ②), a shift in sources for returns from information asymmetry to value creation (③ and ⑥), a change in competitive strategy to be less rely on a specific person with the use of technology and by turning into a service platform (④ and ⑤).



Changes in business models

- ① An emphasis on low-cost products to pursue investment scale.
- ② Reduced opportunities to earn profits through arbitrage; an emphasis on products with economies of scale.
- ③ An emphasis on bottom-up investments and investments in illiquid assets.
- ④ Maintaining a competitive edge by turning into a platform.
- ⑤ Development of new profit opportunities with the use of technology.
- ⑥ Reduced opportunities to make profits by merely providing funds. An emphasis will be on value creation through hands-on support.

Agenda

I. Research Objectives

II. Changes in the environment surrounding asset management firms

1. Existing business models
2. Changes in the environment
3. The essence of the evolution of business models

III. Business models sustainable in the medium- to long-term

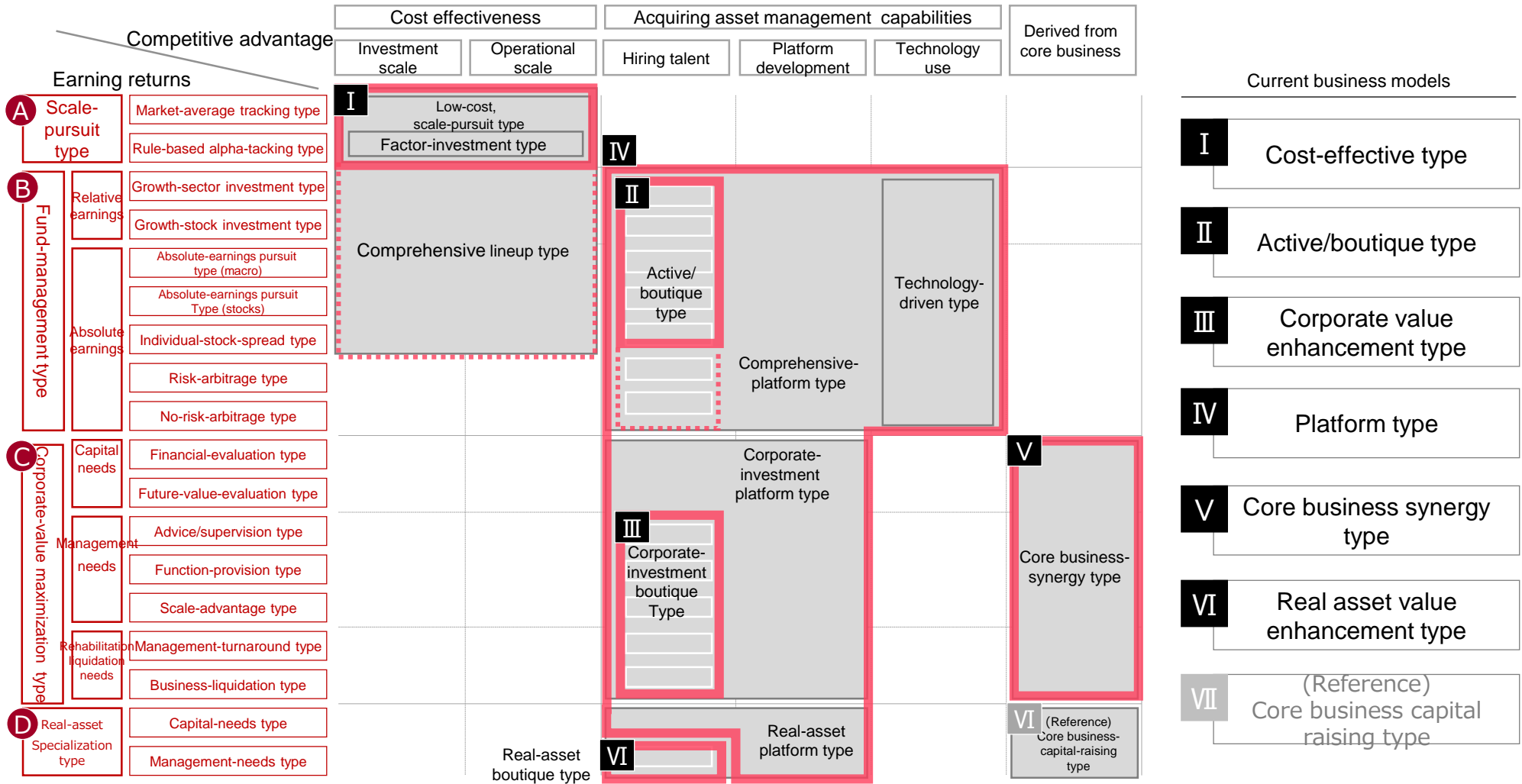
1. Currently sustainable business models
2. Conversion of long-term values to society

IV. GPIF Initiatives

1. Currently Sustainable Business Models

Sustainable Business Models by Type

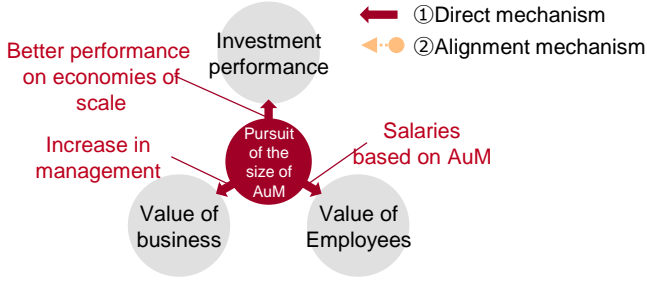
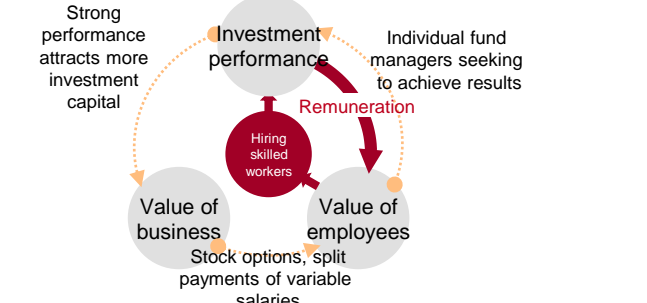
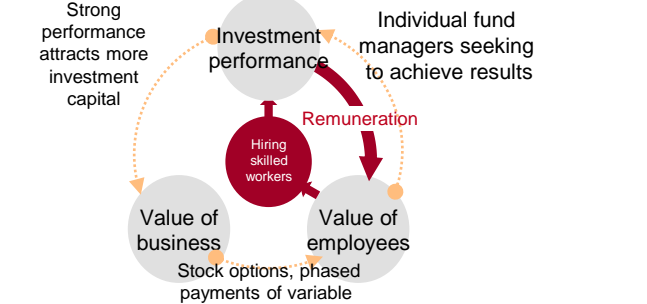
Business models for asset management firms are expected to converge into six types



1. Currently Sustainable Business Models

Sustainable Business Models (1/2)

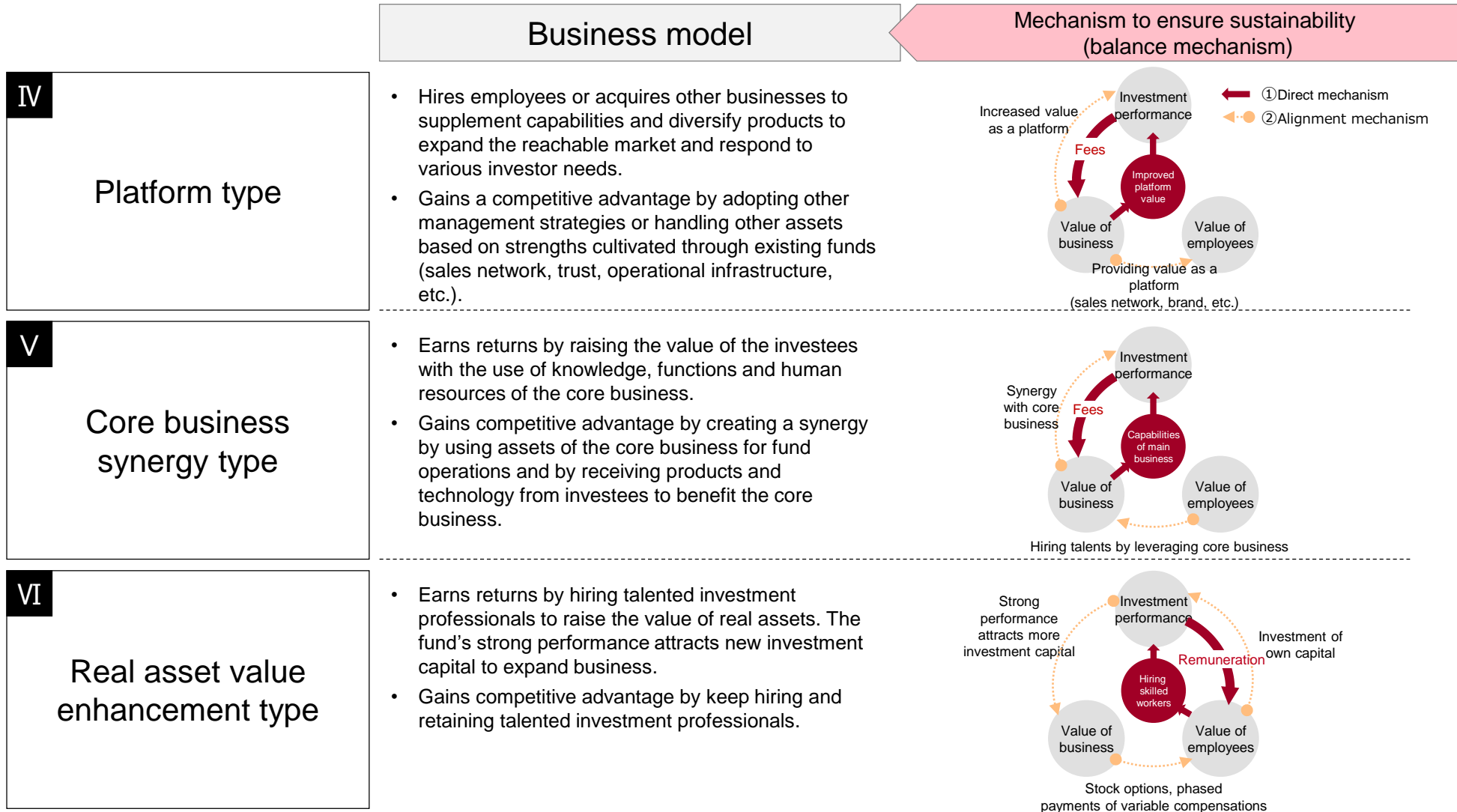
The scale ensures the sustainability of the cost-effective model. Active/boutique and the corporate value maximization models must build a balanced system by offering attractive remuneration to hire and retain talented Investment professionals.

	Business model	Mechanism to ensure sustainability (balance mechanism)
I Cost-effective type	<ul style="list-style-type: none"> Improves cost-effectiveness by expanding the asset size to increase returns. Gains cost-competitiveness by taking advantage of investment and operational scale. 	
II Active/boutique type	<ul style="list-style-type: none"> Acquires “market alpha” by talented investment professionals who can identify growth stocks. The fund’s strong performance attracts new investment capital to expand business. Gains a competitive advantage by keep hiring and retaining talented investment professionals. 	
III Corporate-value-maximization type	<ul style="list-style-type: none"> Increases corporate value or liquidates companies at a high value by talented investment professionals to earn returns. The fund’s strong performance attracts new investment capital to expand business. Gains competitive advantage by keep hiring and retaining talented investment professionals. 	

1. Currently Sustainable Business Models

Sustainable Business Models (2/2)

The platform model and the core business synergy model can enhance their investment capabilities and achieve sustainable growth by maximizing their values as business entities.

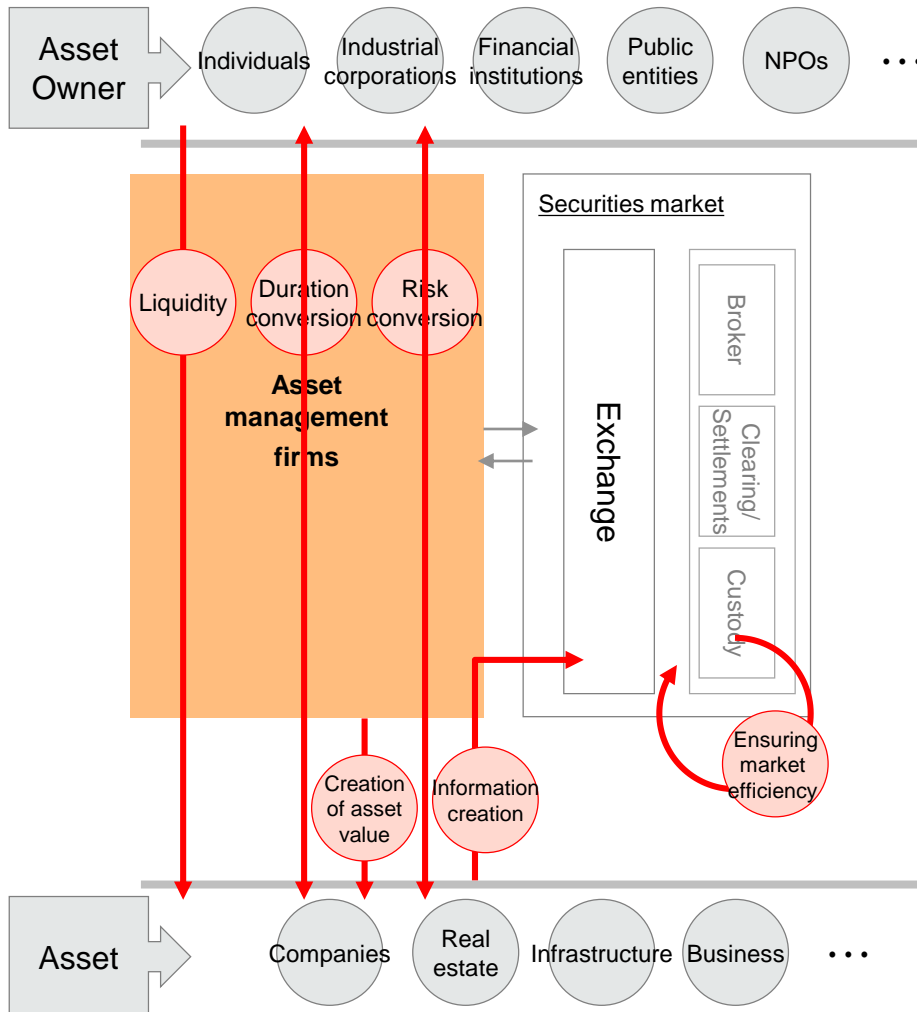


2. Conversion of Long-term Value to Society

Changes in the Fundamental Value of the Capital Market

Asset management firms provide six values to the capital market and earn revenue.

Asset management firms' functions in the capital market



Duration conversion

The function to eliminate the disparities between the supply of short- to medium-term capital and the demand for capital of varying durations.

Information creation

The function to evaluate and monitor the investee in order to assess the value and risks inherent in the asset, so that those fundamentals will be reflected in the price.

Ensuring market efficiency

The function to convey asset evaluation information through investment activities, so that the correct price can always be maintained.

Risk conversion

The function to combine assets with various risks to achieve diversification, so that the investor money that should have a relatively low risk exposure can be invested in high-risk assets.

Liquidity provision

The function to collect money from diverse investors and supply it to the market to increase asset liquidity.

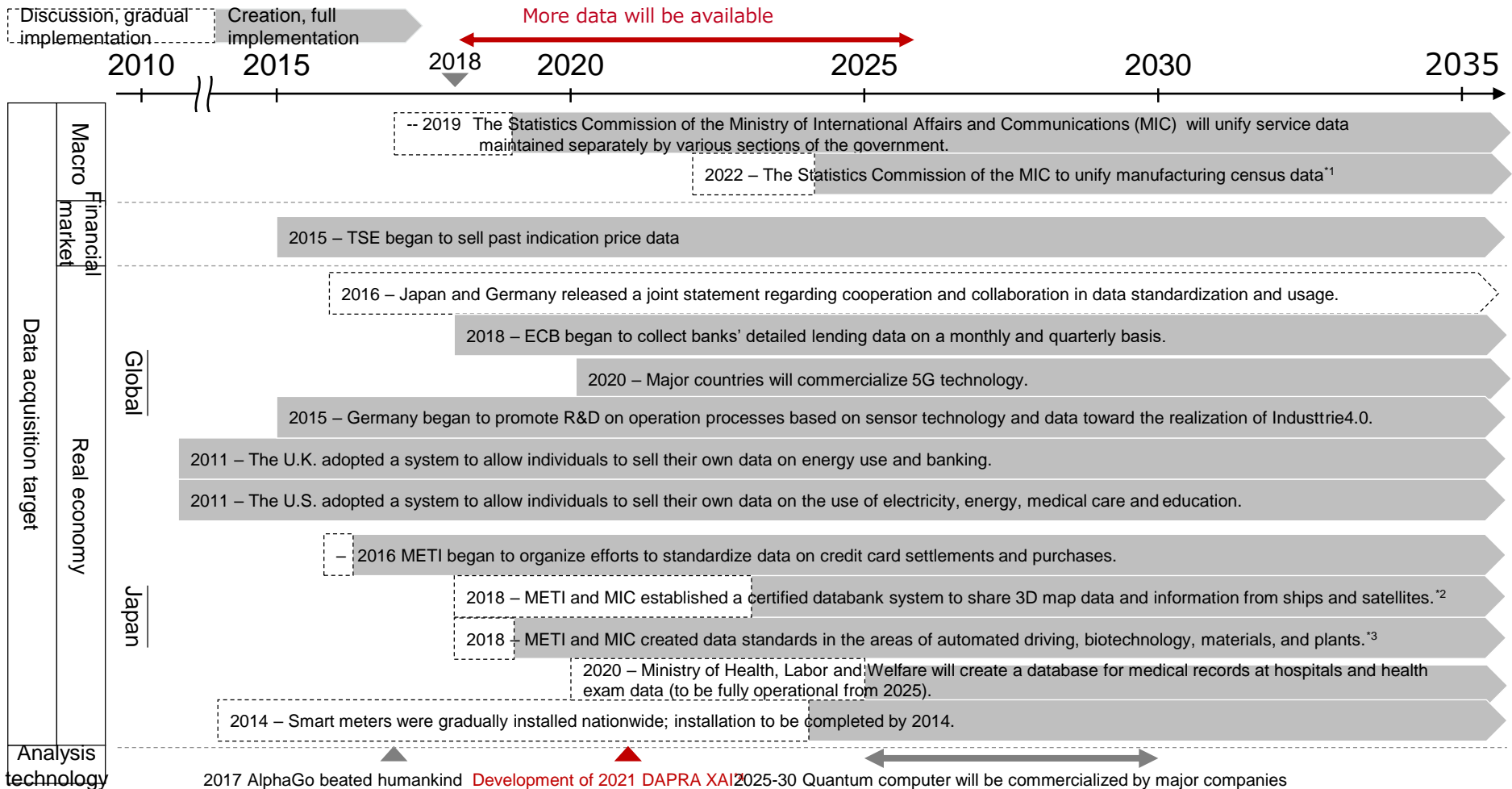
Creation of asset value

The function to promote proper distribution of resources in the overall capital market through information creation and liquidity provision to increase the value of companies and assets.

2. Conversion of Long-term Value to Society

Timeline of Technological Evolution

While there remain some uncertainties with respect to the pace of changes in the environment, the evolution of information technology, the main driver for these changes, has been accelerating. By the first half of the 2020s, the replacement of investments by technology will accelerate as more data will be available and AI will be accountable.

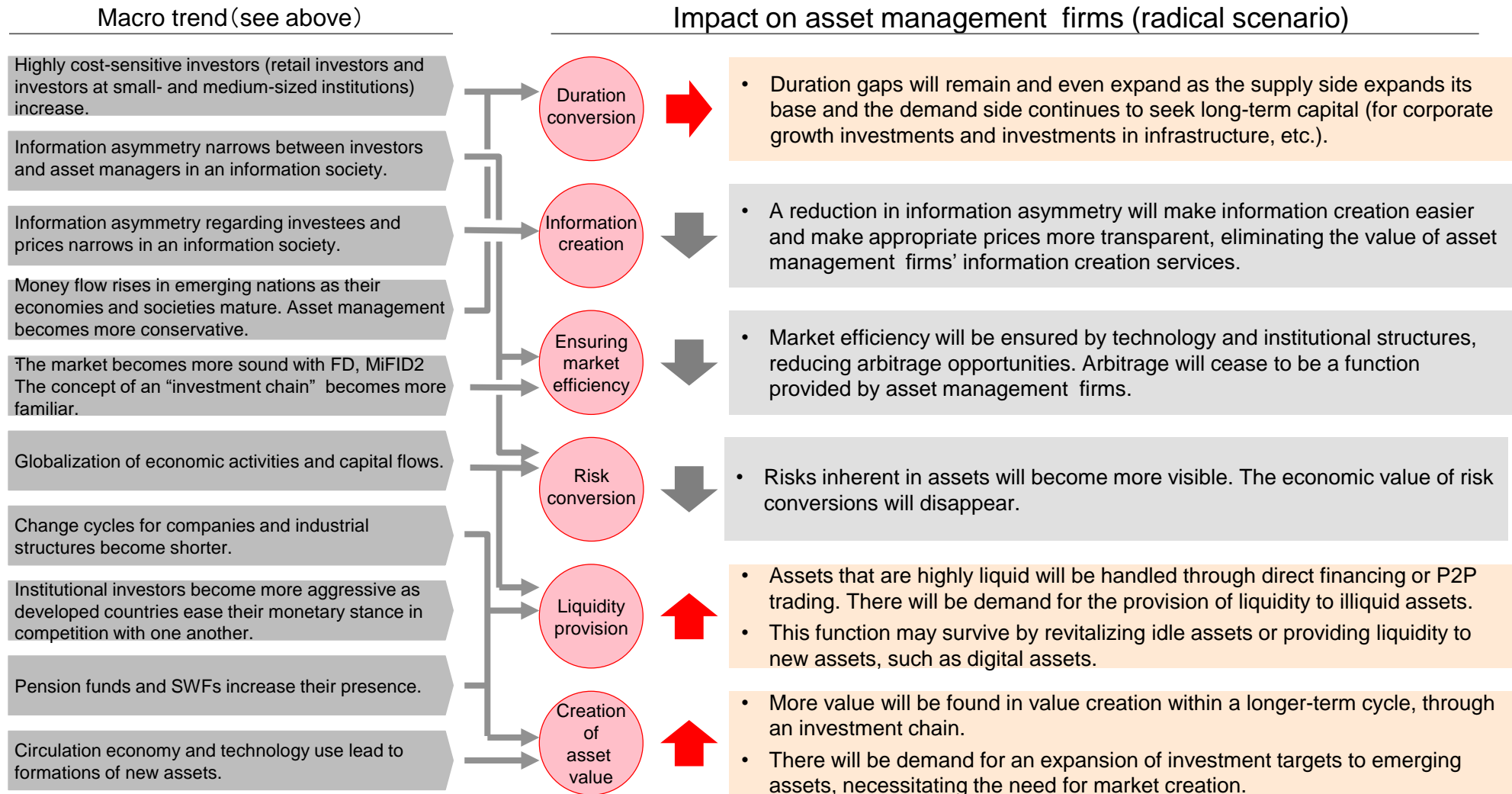


^{*1}: The unification of service data is assumed to take two years ^{*2}: The full implementation of medical database led by MHLW is assumed to take five years ^{*3}: METI's discussion on credit-card data standardization is assumed to take half a year ^{*4}: Accountable AI (can explain the reason for its decisions)

2. Conversion of Long-term Value to Society

Long-term Changes in the Value Provided by Asset Management Firms

Information disparities and market inefficiencies have declined with the development technology. As a result, AM firms will lose their functions of information production, ensuring market efficiency and risk conversion. However, their role of creating asset value, through the provision of liquidity and value creation, will become even more significant.



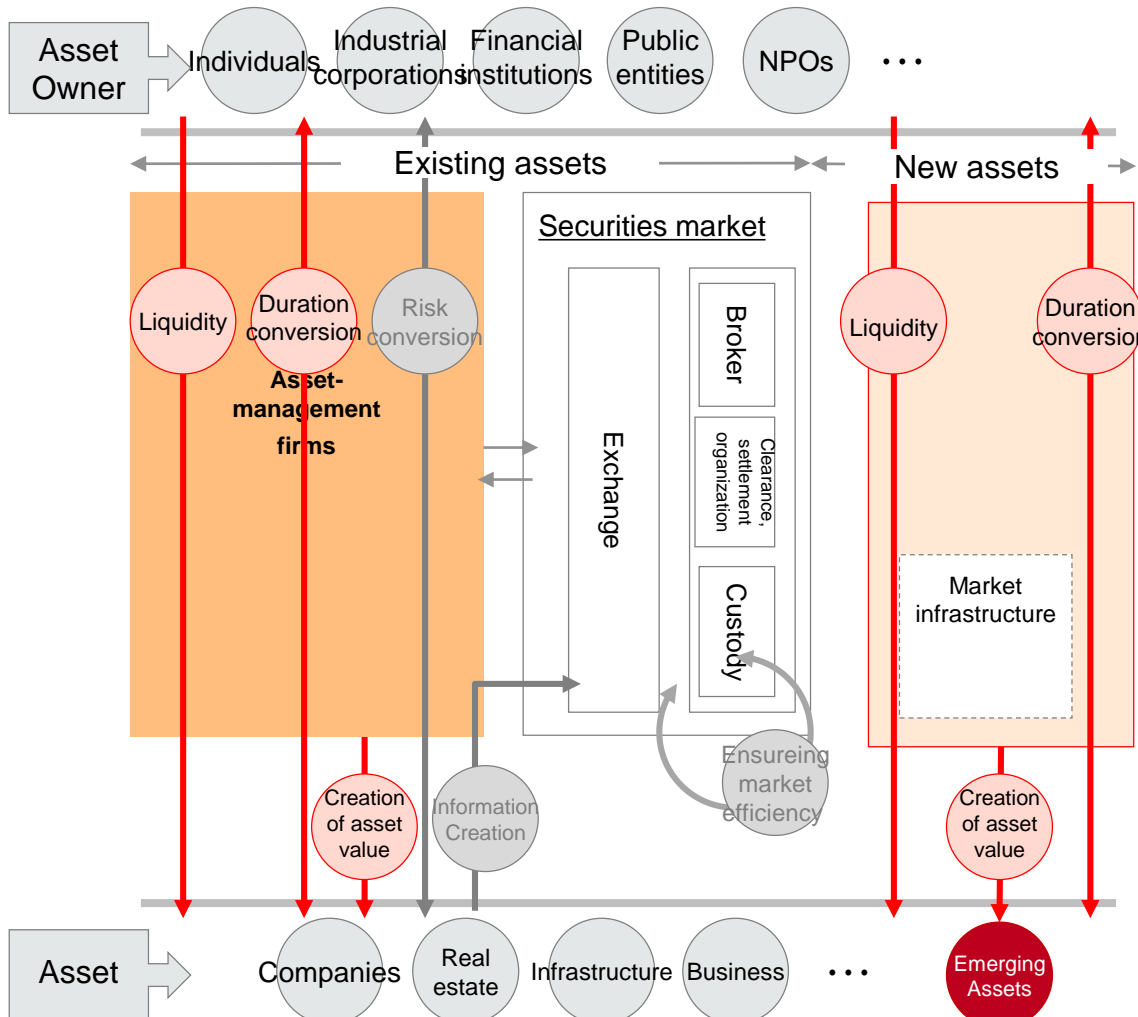
2. Conversion of Long-term Value to Society

How Asset Management Firms Should Operate in the Long Term

Providing companies and assets with opportunities to grow through the circulation of risk money and value creation could constitute a fundamental value that asset management firms offer to society. There may be room to vitalize new assets and create a new market.

Asset management firms' functions in the capital market

How AM firms should operate in the long term

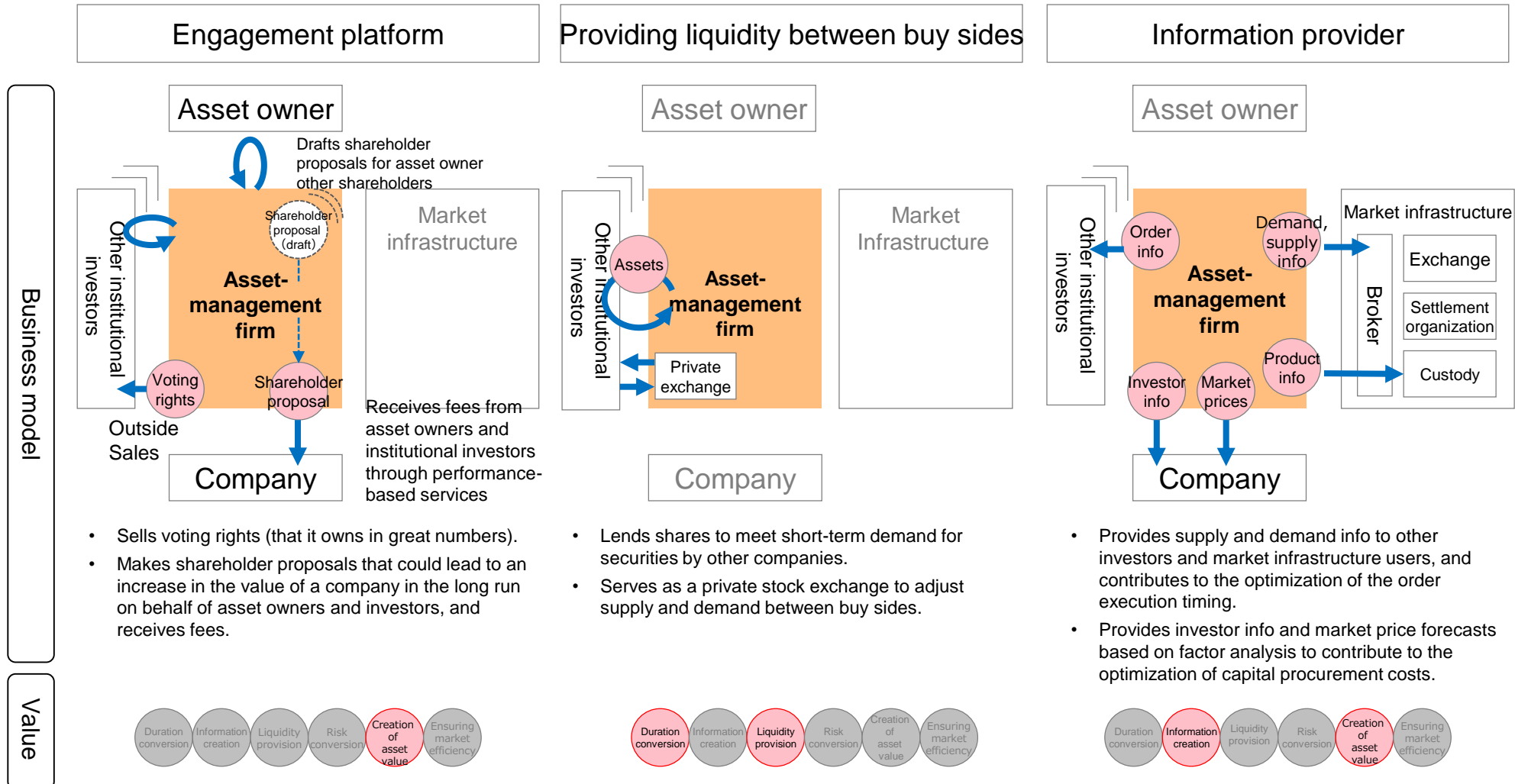


- They should pool a large amount of money from investors with diverse investment horizons and risk preferences and use this money as a resource to improve the value of the original assets. They should thereby become a “medium of value creation and conversion” that creates asset value and provides returns to asset owners.
- They should become an “agent to discover and create assets” by actively finding assets that can generate value to society, such as idle assets, intangible assets and digital assets, to attract risk money.

2. Conversion of Long-term Value to Society

Mid to Long-term Business Model of Passive managers

The “cost-effective type” asset management firms that carry out passive investment, in addition to holding onto the current earnings model based on client fees, could also leverage the size of their assets to play an intermediary role of increasing the value of companies, thereby providing values to society in the long term.



*Possible regulatory constraints have been intentionally ignored

Agenda

- I. Research Objectives
- II. Changes in the environment surrounding asset management firms
 - 1. Existing business models
 - 2. Changes in the environment
 - 3. The essence of the evolution of business models
- III. Business model sustainable in the medium- to long-term
 - 1. Currently Sustainable Business Models
 - 2. Conversion of long-term values to society

IV. GPIF Initiatives

Evaluation Perspectives in Selecting External Asset Managers (1/2)

In selecting external asset managers, evaluations should be made with respect to the sustainability as a business model amid changes in the external environment and the competitive environment in order to identify those with whom long-term relationships can be established.

Evaluation perspectives

	Consistency with current business models	Long-term sustainability
I Cost-effective type	① Cost-effective, sensible product lineup <ul style="list-style-type: none"> Focus is on scale-pursuit funds. If high-cost funds are included, the structure is maintained in such a way that there is a scale advantage through, for example, family funds. Funds that fail to achieve a certain size are redeemed, when appropriate, to maintain cost-effectiveness. Costs of low-performing funds are not shouldered by high-performing funds. 	① Scale can be pursued continuously <ul style="list-style-type: none"> Maintains financial structures that can continuously make investments and raise funds. Maintains strategies and structures that allow for the pursuit of scale, such as operations in multiple geographical locations and the inclusion of active management through factor investment funds.
II Active/boutique type	① Has the capability to assess the value and potential growth of individual industries and companies in such a way that it cannot be replaced by factor investment funds. ② With respect to the fund's fee structure and the fund manager's incentive model, what kind of an alignment mechanism is used? (Whether it is not dependent on fees based on economies of scale.)	① What kind of a mechanism is in place to ensure the proper size of the fund and the independence in investment decision-making to prevent an expansion for short-term gains?
III Corporate-value enhancement type	① Able to provide added value that goes beyond mere capital to increase the value of investee companies. ② What types of incentives are given to fund managers to maximize their performance? (For example, fund managers invest their own money.)	① How are capabilities ensured to continuously increase corporate value? ② What kind of advantage does it have in sourcing so that it can continuously acquire high-quality investment targets?

Evaluation Perspectives in Selecting External Asset Managers (2/2)

(Continued from the previous page)

Evaluation perspectives		
	Consistency with current business models	Long-term sustainability
IV Platform type	<ul style="list-style-type: none"> ① The management portfolio has been created under a clear and sensible strategy. ② Synergies and risk diversification function properly between different business and investment organizations. 	<ul style="list-style-type: none"> ① How are the capabilities ensured to optimize the business portfolio in accordance with the business environment? (The securing of employees, functions dedicated to M&As, etc.) ② How are the externally acquired business and human resources being managed? (The creation of synergies in cost control and capabilities, distribution channels, brand value, etc.)
V Core business synergy type	<ul style="list-style-type: none"> ① The specific value of the core business is utilized in improving the investee's asset value (the creation, maintenance, management of real estate, etc.). ② Adequate measures are taken to protect investment decisions from being unduly influenced by the biases of the core business. 	<ul style="list-style-type: none"> ① The asset management operations produce adequate value for the core business so that the sustainability is ensured.
VI Real-asset value-enhancement type	<ul style="list-style-type: none"> ① Able to provide added value that goes beyond mere capital to increase the value of investee companies. ② What types of incentives are given to fund managers to maximize their performance? (For example, fund managers invest their own money in the fund.) 	<ul style="list-style-type: none"> ① How are the capabilities ensured to continuously increase corporate value? ② What type of advantage does it have in sourcing so that it can continuously acquire high-quality investment targets?

Initiatives to Build Long-term Partnerships

Six major tasks that may be necessary to strengthen long-term relationships with asset management firms and other related players.

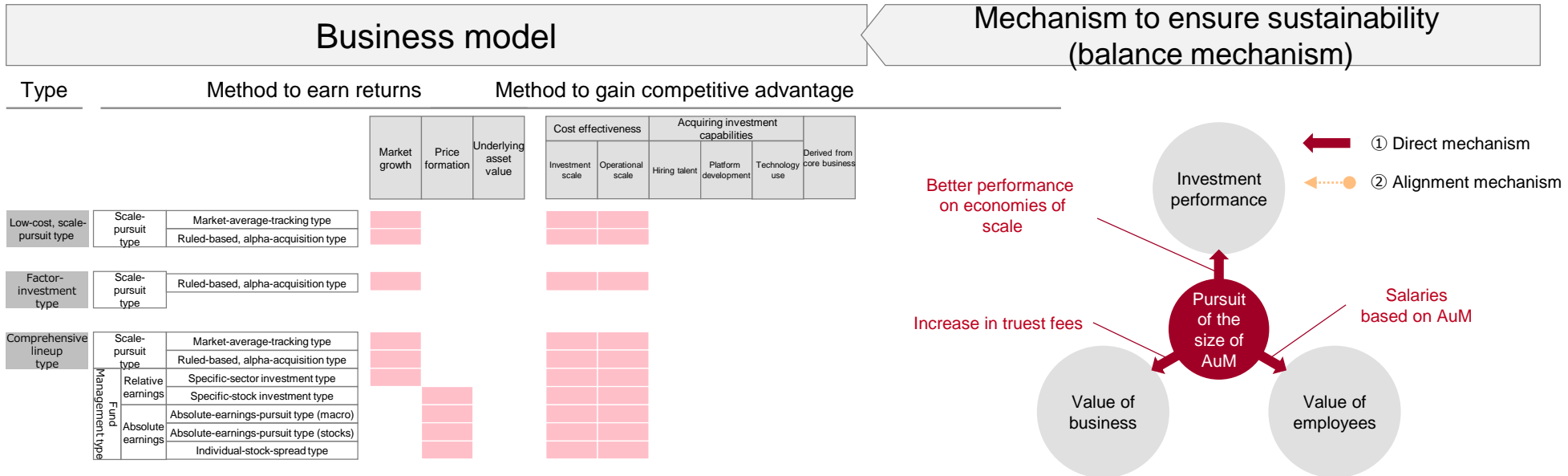
Objective	Task List	Initiatives by GPIF
Promoting circulation of risk money to high-quality companies and assets	Promoting ESG investment	<ul style="list-style-type: none"> • Creation of indexes from a ESG viewpoint. • Allocation of long-term capital.
	Active engagement by passive managers	<ul style="list-style-type: none"> • Providing additional fees to encourage the active engagement of passive managers. • Creating criteria to evaluate asset management firms based on their level of engagement.
	Circulating risk money into niche and new types of assets	<ul style="list-style-type: none"> • Continuous assessment of diverse assets and capital allocations. • Creation of secondary markets and system in consultation with the industry and regulators.
Nurturing high-quality asset management firms	Nurturing asset management firms focusing on long-term growth	<ul style="list-style-type: none"> • Introducing the concept of duration-specific allocations to promote long-term investments. • Long-term commitment with competent active managers.
	Improvement of asset owners' ability to evaluate asset management firms	<ul style="list-style-type: none"> • Sharing the platform of manager entry and the criteria of evaluation with other asset owners to make good use of each other's assessment capability.
	Penetration of business models suitable for changes in the environment	<ul style="list-style-type: none"> • Simplifying procedures and assign a gatekeeper to reduce entry barriers for sophisticated global asset management firms. • Promotion of sound business models through engagement with asset management firms.

Appendix

3. Currently Sustainable Business Models

Cost-effective Type – Business Model and Balance Mechanism

The size of assets must be expanded continuously. The challenge is to generate the ability to make additional investments and execute them.



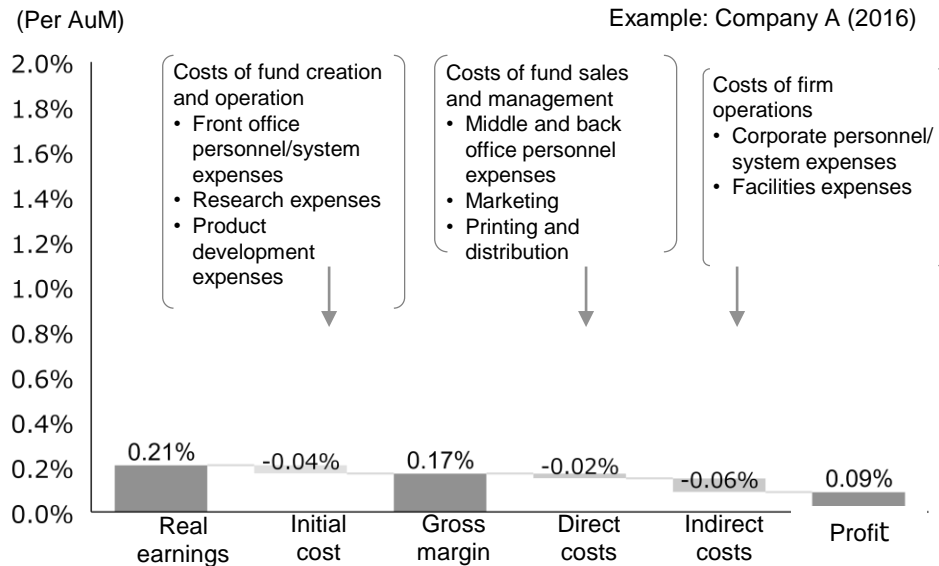
- Expands the size of assets under management to improve cost effectiveness to increase returns.
 - Provides low-fee passive funds to expand asset size.
 - Gains new profit opportunities by linking active funds to indexes and expands assets through an active fund with efficient management.
- Gains cost-competitiveness by leveraging investment and operational scale.
 - Further cost effectiveness is possible through stock lending, operational and system services.
- Increasing the size of assets will benefit investment performance, the value of the business and the value of employees.

3. Currently Sustainable Business Models

Cost-effective Type – Earnings Structure and Incentive Model

Retain employees on a long-term basis. Leverage cost-competitiveness to expand assets under management to earn profits.

Earnings structure



Real earnings per AuM are relatively low. Generates profit by reducing the initial cost, direct costs and indirect costs.

- Real earnings per AuM are about 20 basis points.
- Improves management efficiency by expanding the size of funds.
- The cost base declines through the standardization of operations and IT systems.

Incentive model

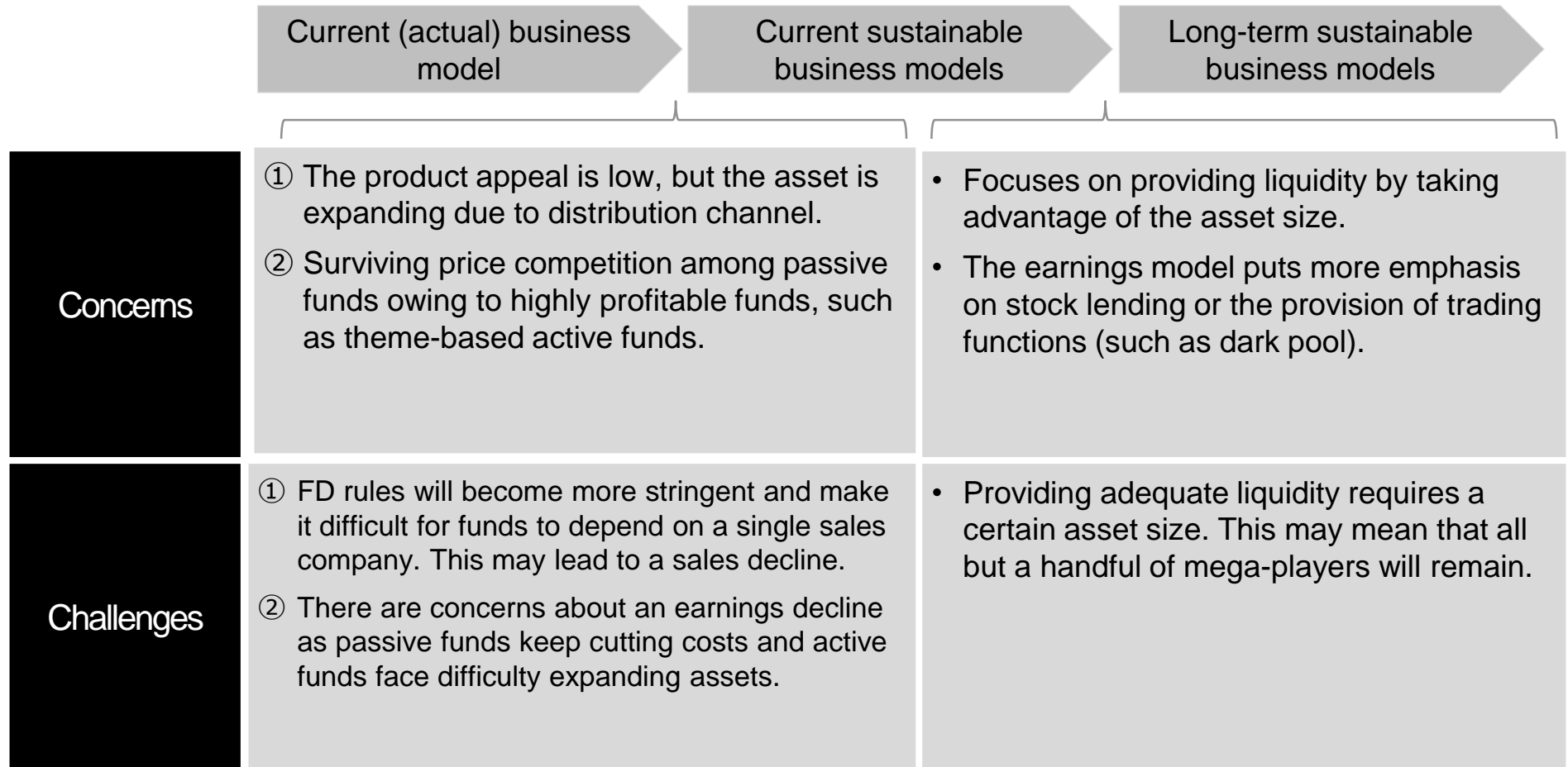
	Researcher	Product design	Sales	Fund manager	Trader
KPI	AuM Size	AuM Size	AuM Size	AuM Size	AuM Size
	Net flow	Net flow	Net flow	Net flow	Net flow
	Revenue	Revenue	Revenue	Revenue	Revenue
Fixed/ variable ratio	Investment performance	Investment performance	Investment performance	Investment performance	Investment performance
	Variable	Fixed	Variable	Fixed	Variable
Payment method	Cash	Cash	Cash	Cash	Cash
	Cash	Cash	Cash	Cash	Cash
	Stock Option	Stock Option	Stock Option	Stock Option	Stock Option
	Regular	Regular	Regular	Regular	Regular
	Irregular	Irregular	Irregular	Irregular	Irregular

This is an incentive model under which KPIs and salaries are similar across different types of jobs. The variable salaries are also linked with the firm's earnings. This is designed for long-term, stable employment.

- Expansion is the KPI across different types of jobs.
- The ratio of variable salaries is relatively low. Annual bonus payments are more closely linked with the firm's earnings than the performance of individual employees.

3. Currently Sustainable Business Models

Cost-effectiveness Type – Medium- to Long-term Strategies and Challenges



Active/Boutique Type – Business Model and Balance Mechanism

Business model

Type	Method to earn return	Method to gain competitive advantage
Active boutique type	Relative earnings	Specific-stock investment type
	Fund	Absolute earnings
		Absolute earnings
		Individual-stock-spread type
	Management type	

Mechanism to ensure sustainability (balance mechanism)

① Direct mechanism
② Alignment mechanism

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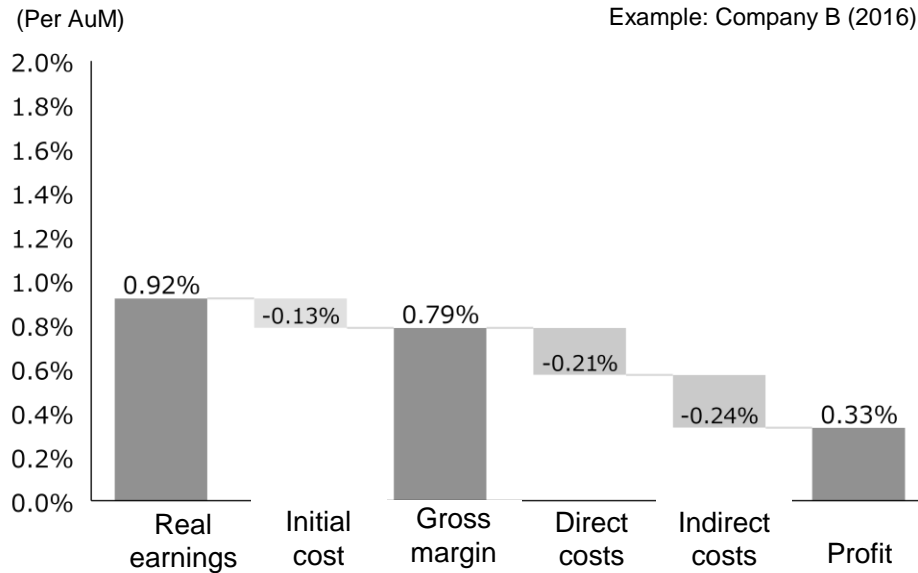
3. Currently Sustainable Business Models

Active/Boutique Type – Earnings Structure and Incentive Model

Incentives are provided in accordance with the fund's performance as it seeks to achieve returns that are higher than the market average. They attract fresh capital by building a track record to expand the business.

Earnings structure

Example: Company B (2016)



Builds a track record to attract new assets, increase real earnings and generate profits.

- Real earnings per AuM are about 1%.
- Performance-linked funds receive fees equivalent to the amount generated in excess of the committed target return.

Incentive model

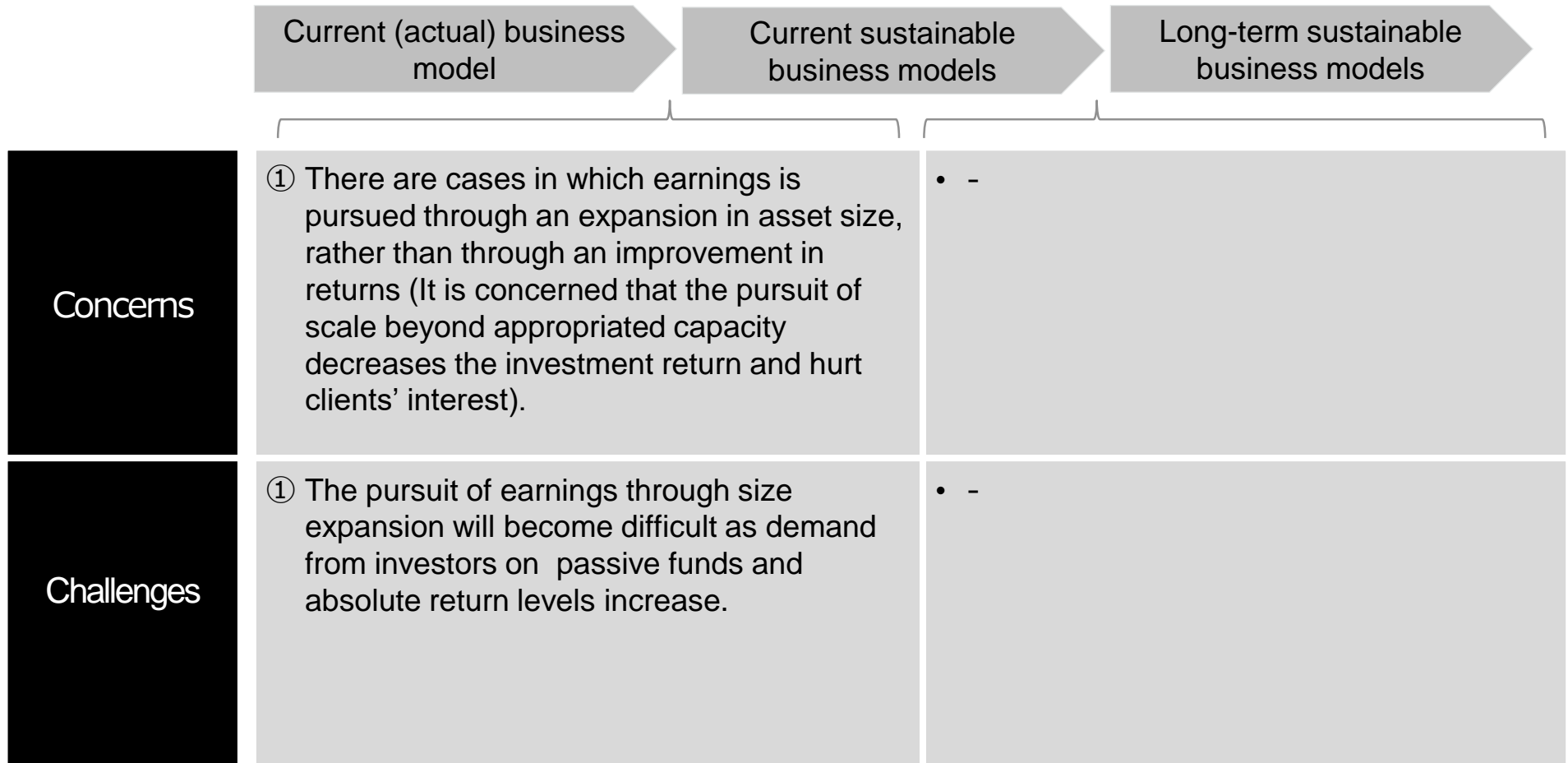
	Researcher	Product design	Sales	Fund manager	Trader
KPI	AuM Size	AuM Size	AuM Size	AuM Size	AuM Size
	Net flow	Net flow	Net flow	Net flow	Net flow
	Revenue	Revenue	Revenue	Revenue	Revenue
Fixed/ variable ratio	Investment Performance	Investment Performance	Investment Performance	Investment Performance	Investment Performance
	Variable	Variable	Variable	Variable	Variable
	Fixed	Fixed	Fixed	Fixed	Fixed
Payment method	Cash	Cash	Cash	Cash	Cash
	Cash	Cash	Cash	Cash	Cash
	Stock Option	Stock Option	Stock Option	Stock Option	Stock Option
	Regular	Regular	Regular	Regular	Regular
	Irregular	Irregular	Irregular	Irregular	Irregular

The ratio of variable salaries is set high for fund managers and sales personnel to provide incentives for better investment performance and fund inflow.

- Fund managers invest their own money in the fund to increase the commitment for the performance.
- Stock options are provided to retain a certain number of employees.

3. Currently Sustainable Models

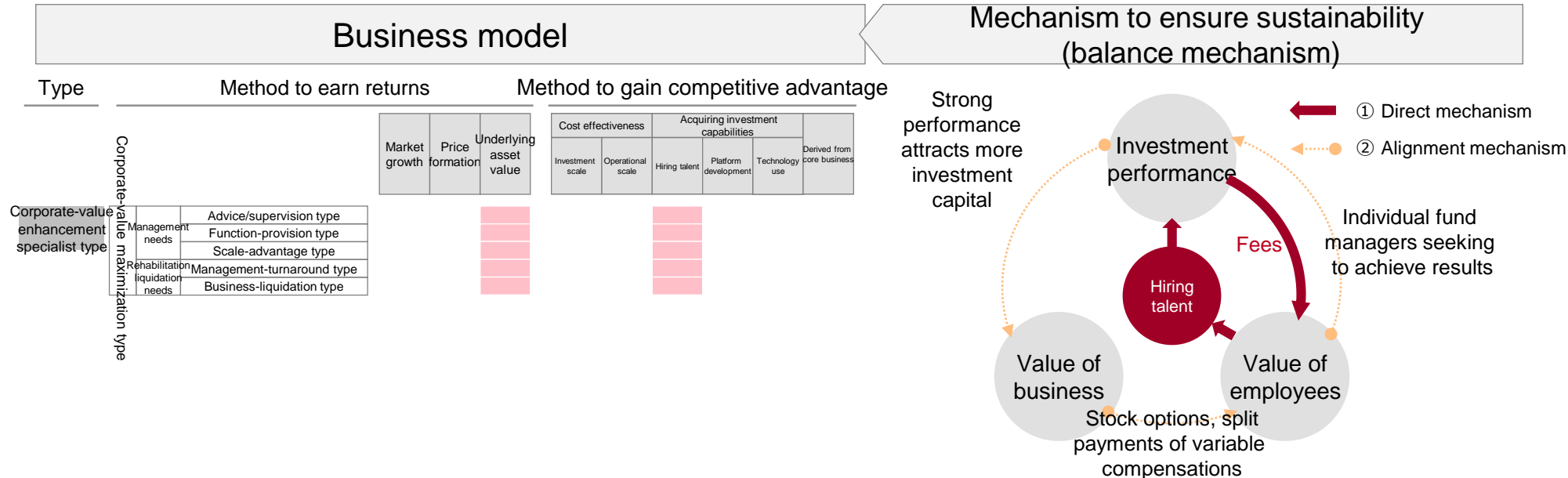
Active/Boutique Type – Medium- to Long-Term Strategies and Challenges



3. Currently Sustainable Business Models

Corporate-value Enhancement Type – Business Model and Balance Mechanism

Corporate growth is vitally important for earning returns. The challenge is to focus on specific areas to accumulate knowledge and have specialized teams cooperate with one another.



- Talented investment professionals improve corporate value and liquidate companies at high prices to earn returns. The fund's strong performance attracts new capital to expand the asset size.
- Gains competitive advantage by hiring and retaining talented investment professionals.

- Investment performance improves by keep hiring and retaining talented investment professionals and it realizes the value of employees.
- A portion of salaries will be linked with the value of the business as the alignment with the value of the employees.

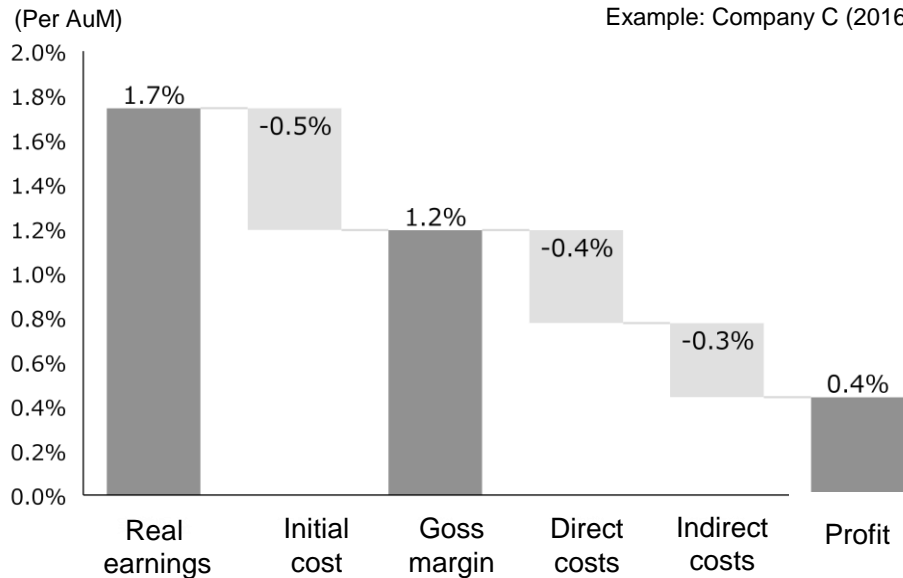
3. Currently Sustainable Business Models

Corporate-value Enhancement Type – Earnings Structure and Incentive Model

Incentives are provided in accordance with the fund's performance to increase the corporate value and achieve returns. Attract new capital by building a track record to expand the business.

Earnings structure

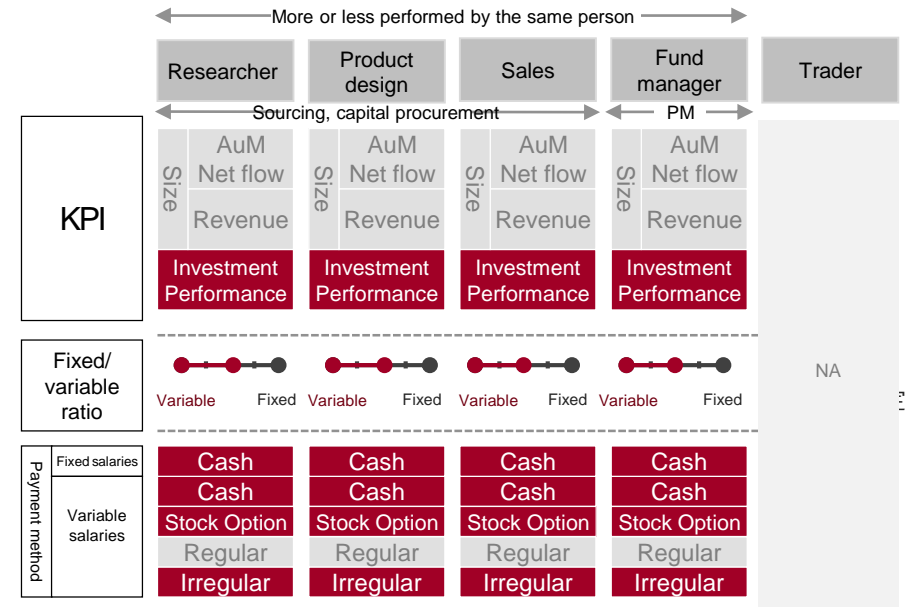
Example: Company C (2016)



Builds a track record to attract new assets, increase real earnings and generate profits.

- Real earnings per AuM are about 1%.
- Expenses are covered by fixed management fees.

Incentive model

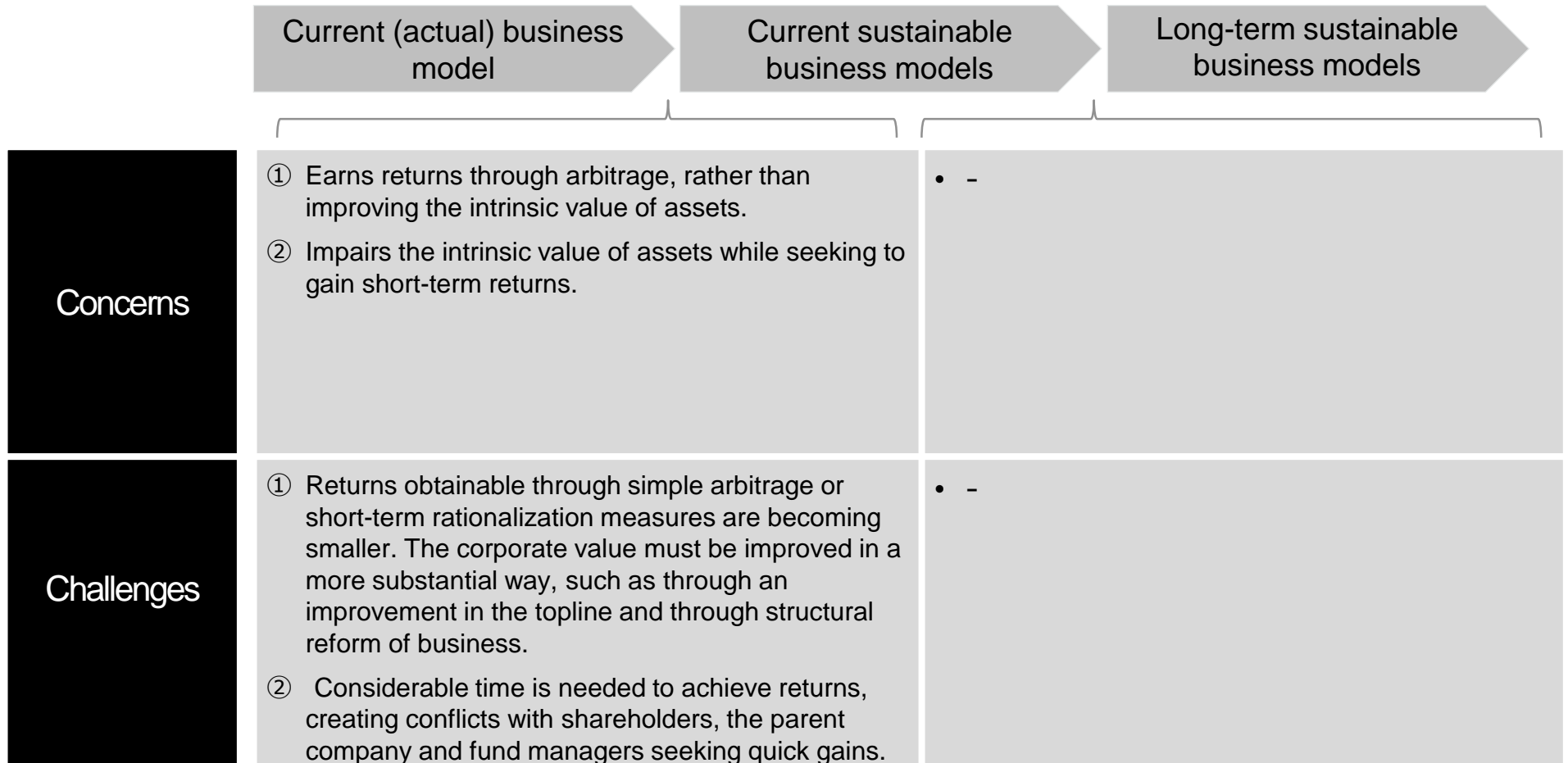


Incentives are provided to improve the investment performance by supporting investee companies until the exit.

- Variable salaries are provided in accordance with the excess returns. This is to encourage managers to commit themselves from sourcing to exit.
- Fund managers invest their own money in the fund to increase the commitment for the performance.
- Stock options are provided to retain a certain number of employees.

3. Currently Sustainable Business Models

Corporate-value Enhancement Type – Medium- to Long-term Strategies and Challenges



Platform Type – Business Model and Balance Mechanism

Business model

Type	Method to earn returns		Method to gain competitive advantage								
			Market growth	Price formation	Underlying asset value	Cost effectiveness		Acquiring investment capabilities			Derived from core business
						Investment scale	Operational scale	Hiring talent	Platform development	Technology use	
Comprehensive platform type	Fund management type	Specific-sector investment type									
		...									
	Corporate-value maximization type	Financial-evaluation type									
		...									
	Asset specialization type	Capital-needs type									
		Management-needs type									
Corporate investment platform type	Corporate-value maximization type	Financial-evaluation type									
		...									
Technology-use type	Fund management type	Specific-sector investment type									
		...									

Mechanism to ensure sustainability (balance mechanism)

① Direct mechanism

② Alignment mechanism

- ① The acquired capabilities lead to a strong performance for the fund, maximizing the asset management firm's returns.
- ② These returns will be used to enhance the value of the platform.

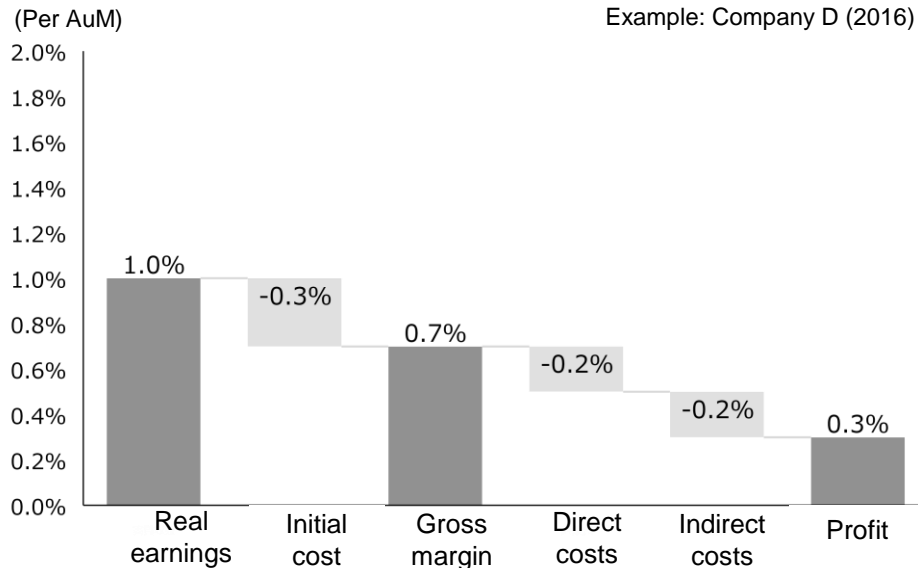
3. Currently Sustainable Business Models

Platform Type – Earnings Structure and Incentive Model

The primary thrust is the pursuit of higher returns, but cost synergies and teamwork are also considered.

Earnings structure

Example: Company D (2016)



Diversifies asset classes, products and investment methods to expand the reachable market and increase real earnings to generate profits.

- Real earnings per AuM is about 1%.
- Expands the functions shared with the corporate section, market section, etc. to produce cost synergies.

Incentive model

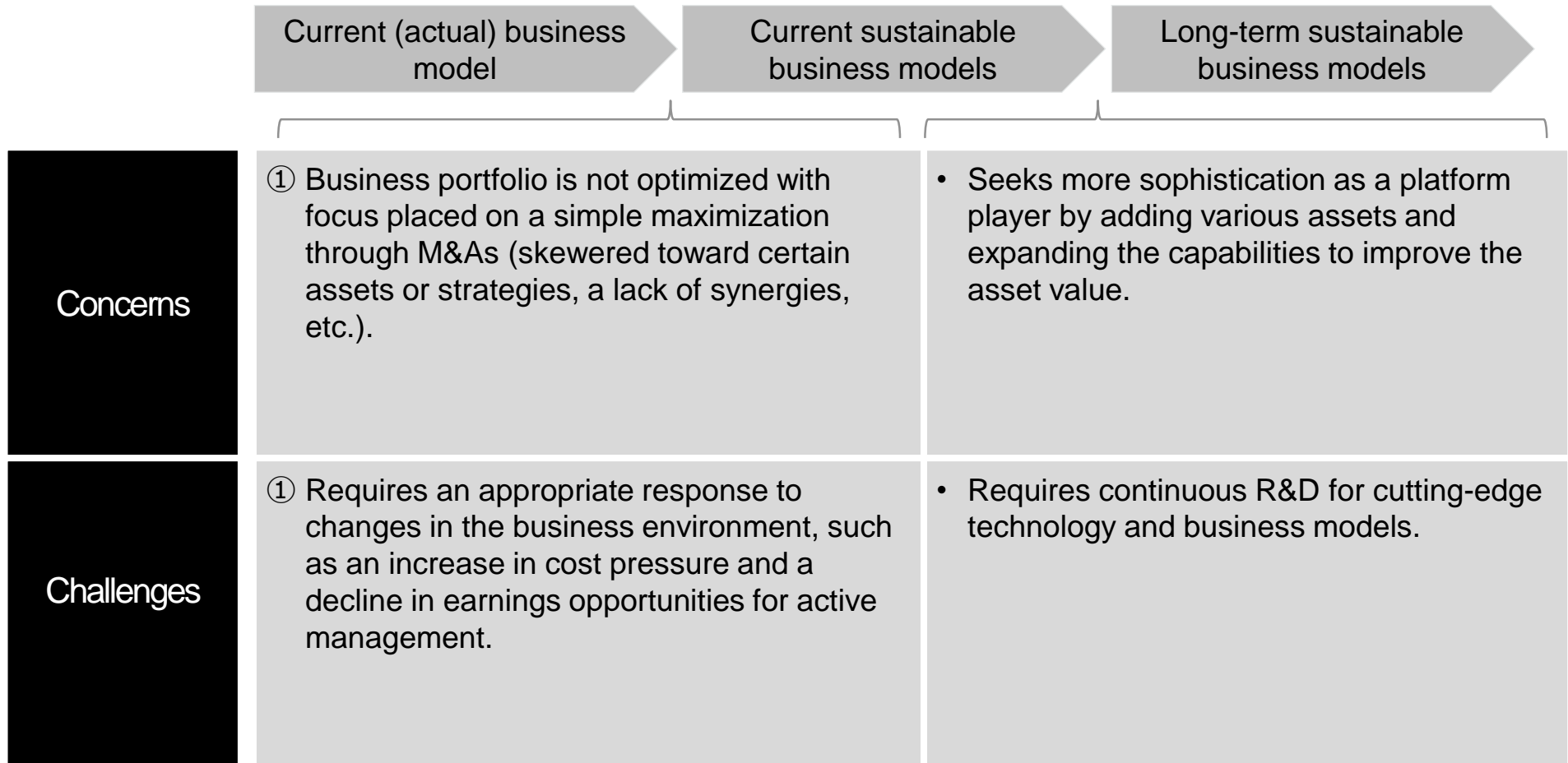
	Researcher	Product design	Sales	Fund manager	Trader
KPI	AuM Size Net flow Revenue	AuM Size Net flow Revenue	AuM Size Net flow Revenue	AuM Size Net flow Revenue	AuM Size Net flow Revenue
	Investment Performance	Investment Performance	Investment Performance	Investment Performance	Investment Performance
Fixed/ variable ratio	Variable Fixed	Variable Fixed	Variable Fixed	Variable Fixed	Variable Fixed
Payment method	Cash	Cash	Cash	Cash	Cash
	Cash	Cash	Cash	Cash	Cash
	Stock Option	Stock Option	Stock Option	Stock Option	Stock Option
	Regular Irregular	Regular Irregular	Regular Irregular	Regular Irregular	Regular Irregular

Each fund is given two types of incentives: incentives designed for each fund to maximize performance, and incentives to improve the platform value.

- To promote value creation as a platform through collaborations among employees and among different departments, some incentives are linked with the firm's overall performance and the performance of funds managed by other employees.

3. Currently Sustainable Business Models

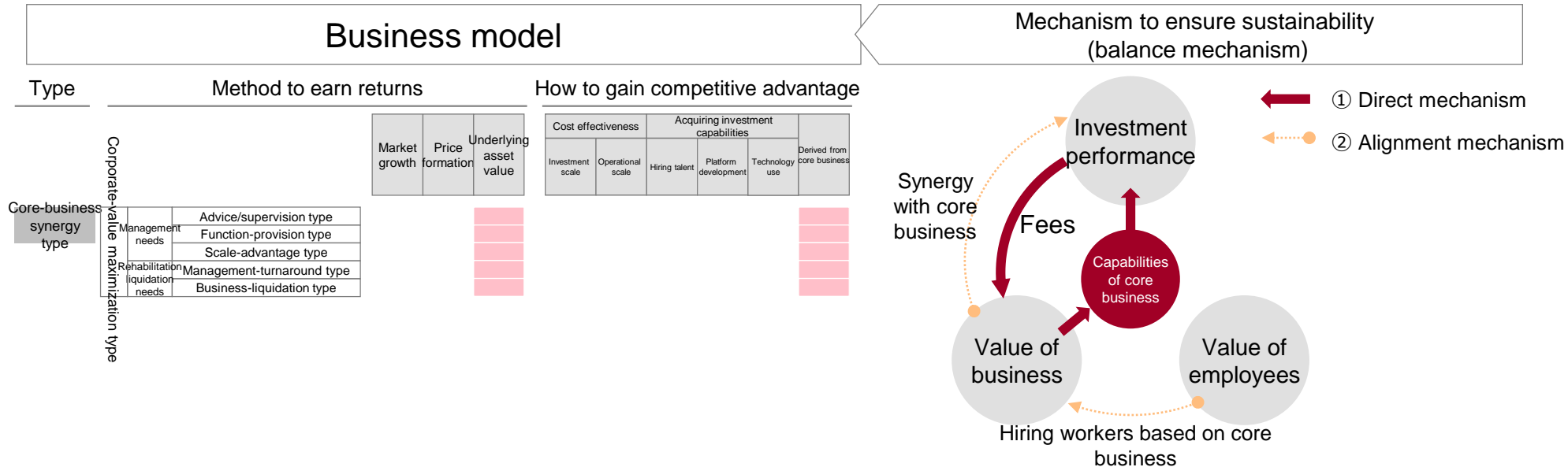
Platform Type – Medium- to Long-term Strategies and Challenges



3. Currently Sustainable Business Models

Core business Synergy Type – Business Model and Balance Mechanism

The competitive advantage is in the creation of an industrial platform and ecosystem based on its strength derived from core business.



- Utilizes the knowledge, functions and human resources of the core business to improve the value of the investees and earns returns.
- Gains a competitive advantage by using the assets of the core business for the fund, and using the products and technologies of the investees to benefit the core business to create synergies.

- ① Uses the capabilities of the core business to improve the value of the investees and acquire strong asset management performance.
- ② The creation of synergies with the core business functions as part of an alignment strategy.

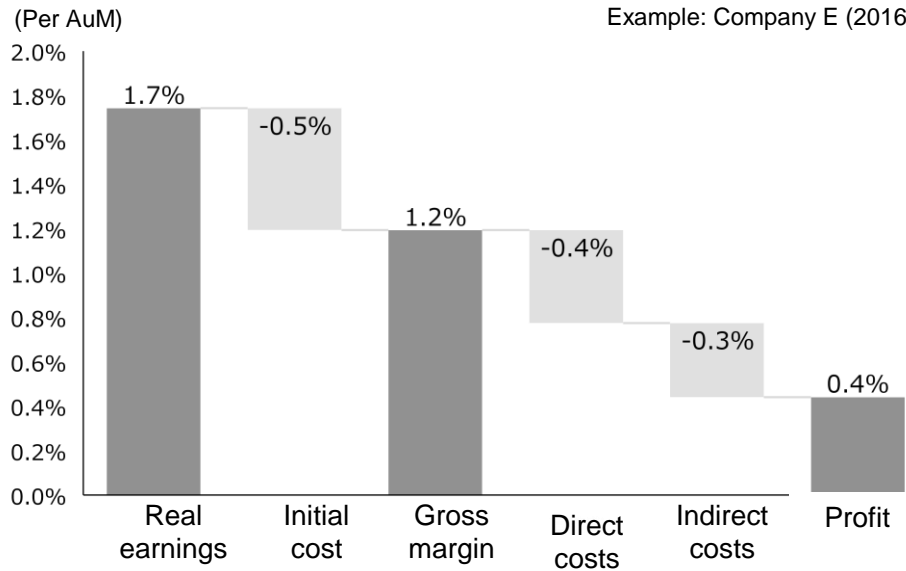
3. Currently Sustainable Business Models

Core business Synergy Acquisition Type – Earning Structure and Incentive Model

Increases the value of the investees using the capabilities of the core business.

Earnings structure

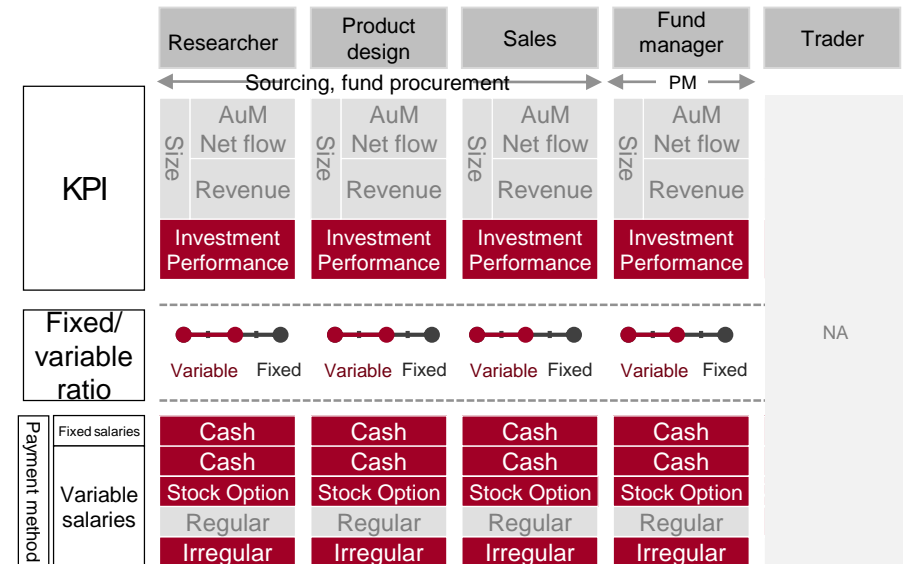
Example: Company E (2016)



Uses the capabilities of the core business to build a track record and attract new assets for management. Increases real earnings to generate profits.

- Real earnings per AuM is about 2%.
- Fixed management fees to cover necessary expenses.
- Some costs are held down with the use of capabilities of the core business.

Incentive model

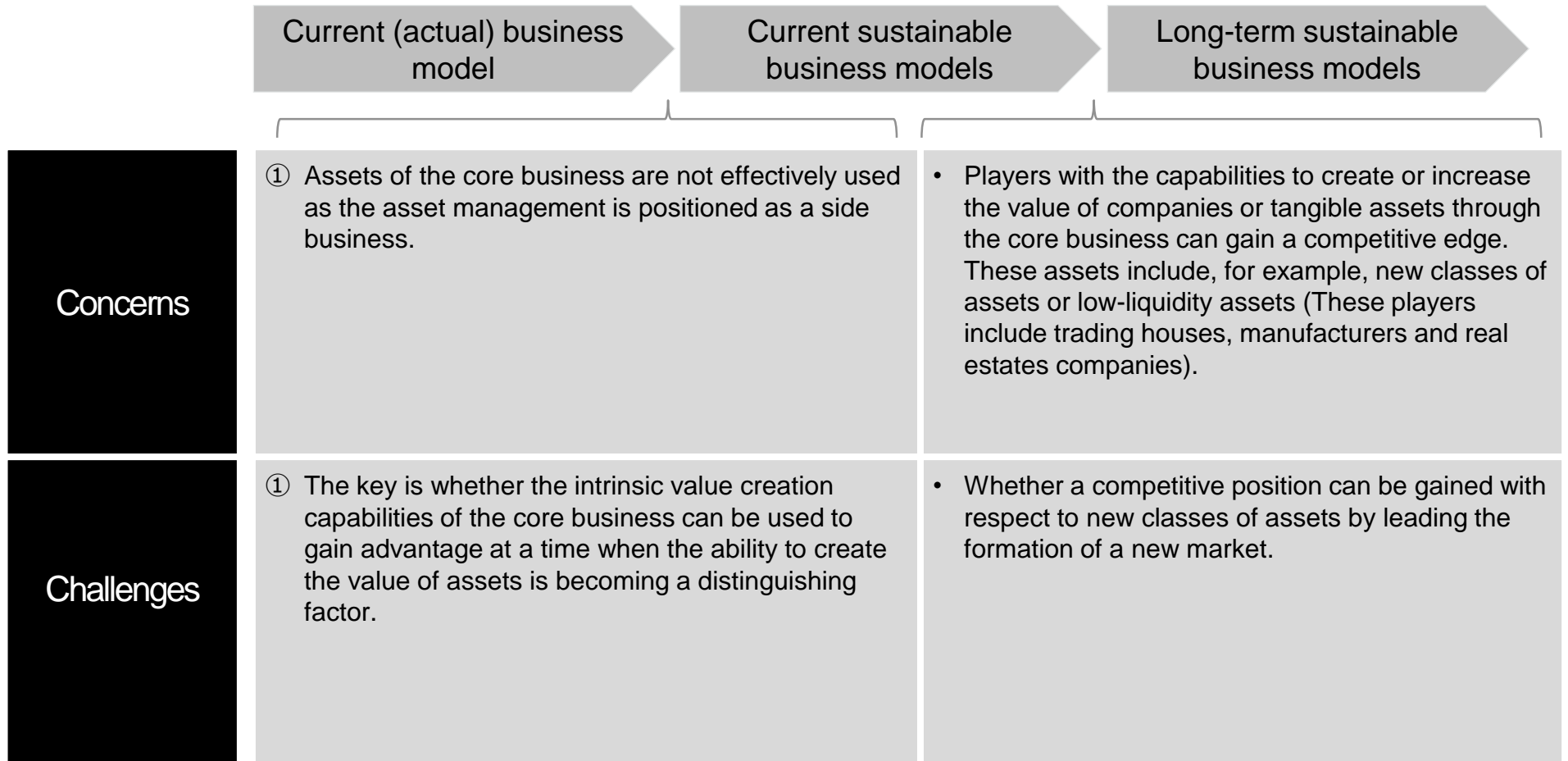


Incentives are provided to increase the fund performance with respect to investments that can create synergies with the core business.

- A portion of the salaries are linked with the performance of the core business.
- Fund managers invest their own money in the fund to increase the commitment for the performance.
- Stock options are provided to retain a certain number of employees.

3. Currently Sustainable Business Models

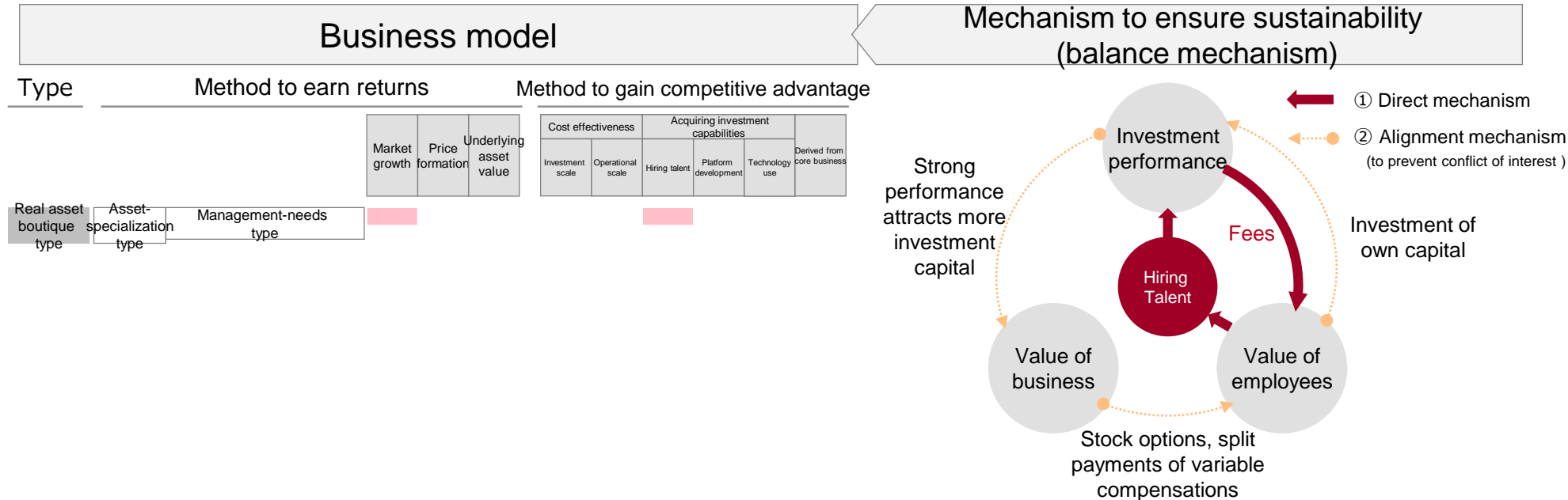
Core business Synergy Type – Medium- to Long-term Strategies and Challenges



3. Currently Sustainable Business Models

Real-asset Value Enhancement Type – Business Model and Balance Mechanism

Importance is placed on providing value in addition to capital, and on securing earnings through new asset classes. The challenge is to improve the value it provides, proactively making investments to seek new earnings opportunities, and to achieve teamwork.



- Talented investment professionals raise the value of real assets to earn returns. The fund's strong performance attracts new investment capital to expand operations.
- Gains a competitive advantage by hiring and retaining talented investment professionals.

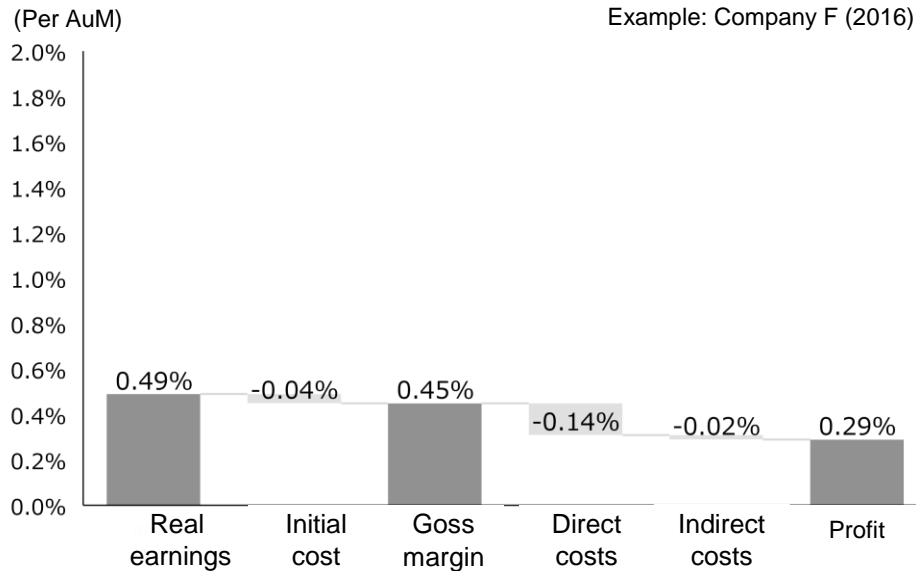
- Investment performance improves by keep hiring and retaining talented investment professionals and it realizes the value of employees.
- A portion of salaries will be linked with the value of the business as the alignment with the value of the employees.

3. Currently Sustainable Business Models

Real-asset Value Enhancement Type – Earnings Structure and Incentive Model

Incentives are linked to fund performance and earns returns through the asset's improved cash flow and capital gains. Builds a track record to attract new capital and expand the business.

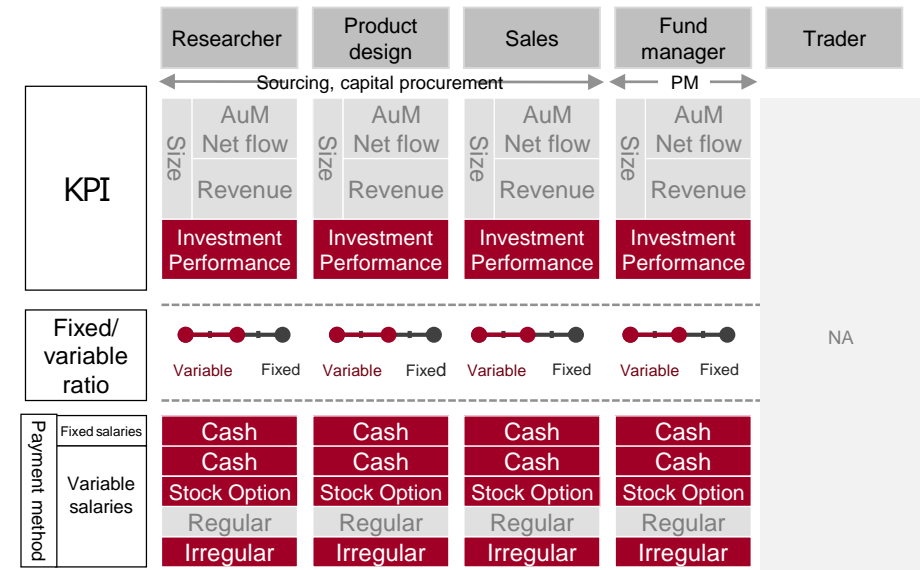
Earnings structure



Builds a track record to attract new management assets, increase real earnings, and generate profits.

- Real earnings per AuM are about 0.5%.
- Expenses are covered by fixed management fees.
- The ratio of personnel costs is high relative to overall expenses.

Incentive model

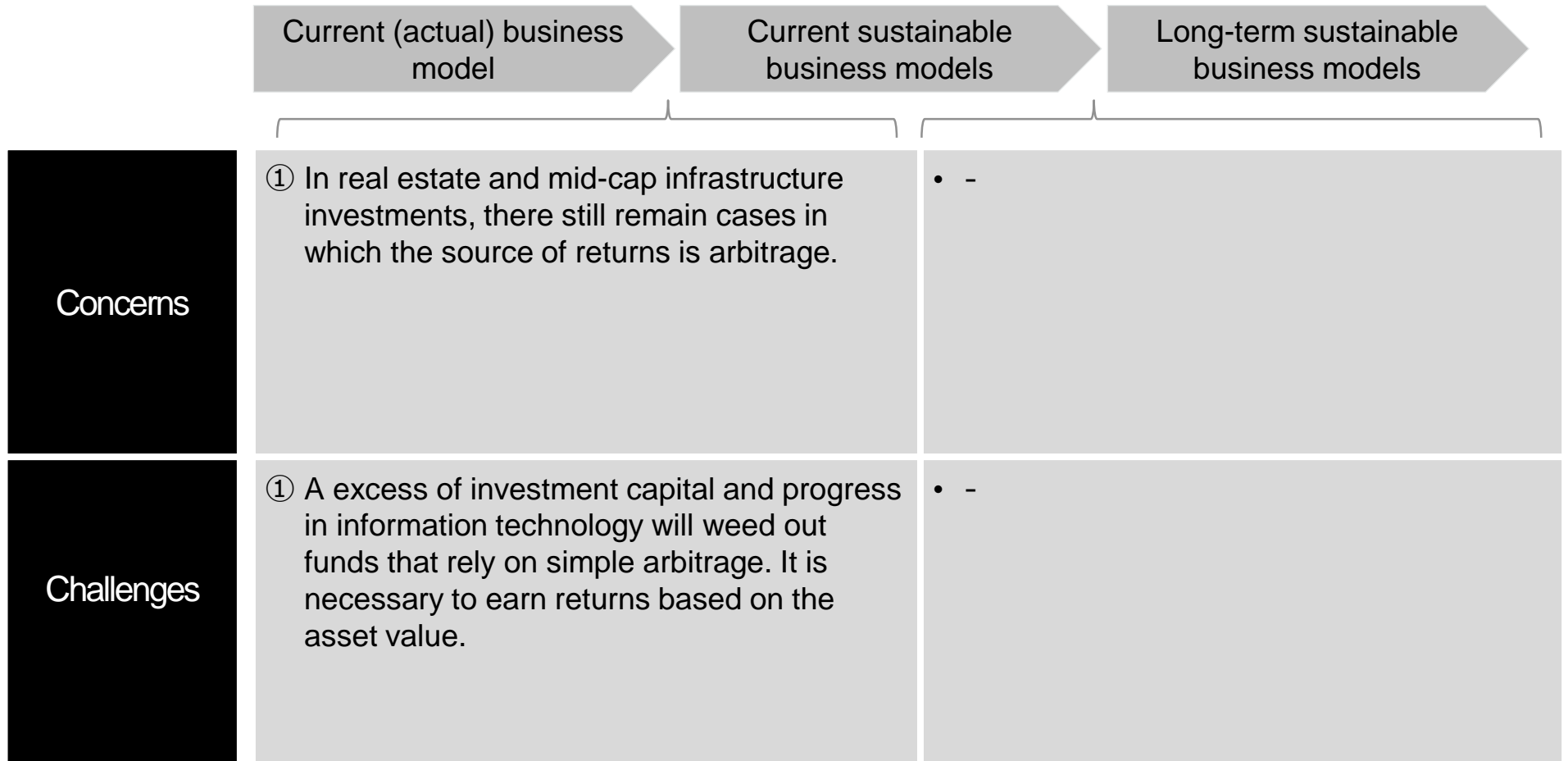


Incentives are provided to improve the investment performance by increasing the value of real assets until the exit.

- Variable salaries are provided in accordance with the excess returns. This is to encourage fund managers to commit themselves from sourcing to exit.
- Fund managers invest their own money in the fund to increase the commitment for the performance.
- Stock options are provided to retain a certain number of employees.

3. Currently Sustainable Business Models

Real-asset-value Enhancement Type – Medium- to Long-term Strategies and Challenges



Further deepening for future research and study

Although this research indicates the magnificent structure change from an asset management firm's point of view, further deepening of this research, such as insights given by each player like asset owner and regulatory authority, quantitative analysis of information are yet to be conducted.

View

Further deepening for future research and study

Change of needs
towards asset
management firms
from asset owner's
view

- The expectation for AM firm of asset owner is not only the cost optimization, which includes transparency of fees and transformation to performance-based system, but also the diversified services such as providing information or operational work, etc. .
- Although insights of external environment change, direction of business strategy and industry structure change have been concluded through interview for AM firms, more insights of trend change from different dimension could be gained through analysis of asset owner side such as oversea pension funds, financial institutions and non-financial companies.

Insight of regulatory
authority trend

- The regulatory environment of AM industry is changing magnificently both inside and outside the country, promotion of fiduciary duty and stewardship code, enforcement of MiFID II in EU is developing.
- This research is focused on the realized trend in terms of investor protection. The future research can weave the development trend of authorities into future scenario based on a mid-long term perspective like industrial development through hearing from regularity authorities.

Insight from
"Disruptor" point of
view

- The players who don't limit themselves as traditional asset management firms have raised slowly recently, such as hedge funds that making full advantage of AI and data analysis technology and players who enters different from industry that leverage the power of seizing data.
- The interview targets of this research are asset management firms. More detailed disruptive scenario could be realized by hearing startup disruptors with the view of from where they discover business chance or how they understand future industry structure.

Quantitative analysis
of revenue/cost
structure

- The revenue/cost structure of asset management firms will be changed due to the pressure of lowering fees, equalization of investor's cost, by MiFID II and cost structure change caused by technology development.
- This research concluded the insights of characteristics of cost structure and qualitative impact based on the public information of each company. The insights of quantitative valuation of impact to the revenue/cost structure based on the financial information including private information could be concluded.