

# NATIONAL PENSION FUND

Annual Report 2017



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## FISCAL 2017 NPF HIGHLIGHTS

### Reserve Fund (as of the end of 2017)

National Pension Fund

KRW **621.6** Trillion  
(USD 580.2 Billion)



### Stable Return

Rate of Return for 2017

**7.26%**



1988-2017 Annualized Rate of Return

**6.02%**



### Continuous Investment Diversification

Fixed Income

| 2005         | 2017         |
|--------------|--------------|
| <b>86.7%</b> | <b>50.6%</b> |
| ▼            | ▼            |
| 2017         | 2017         |

Equity

| 2005         | 2017         |
|--------------|--------------|
| <b>12.4%</b> | <b>38.6%</b> |
| ▼            | ▼            |
| 2017         | 2017         |

Alternative Investment

| 2005        | 2017         |
|-------------|--------------|
| <b>0.5%</b> | <b>10.8%</b> |
| ▼           | ▼            |
| 2017        | 2017         |

Note 1) For the NPF 2017 Annual Report, the fiscal year started 1 January, 2017 and ended 31 December, 2017 (12 months)

2) US\$1 = ₩1,071.4 as of December 31, 2017



### Global Investment

(As of the end of 2017)

Amount of Global Investment

KRW **176.4** Trillion  
(USD 164.6 Billion)

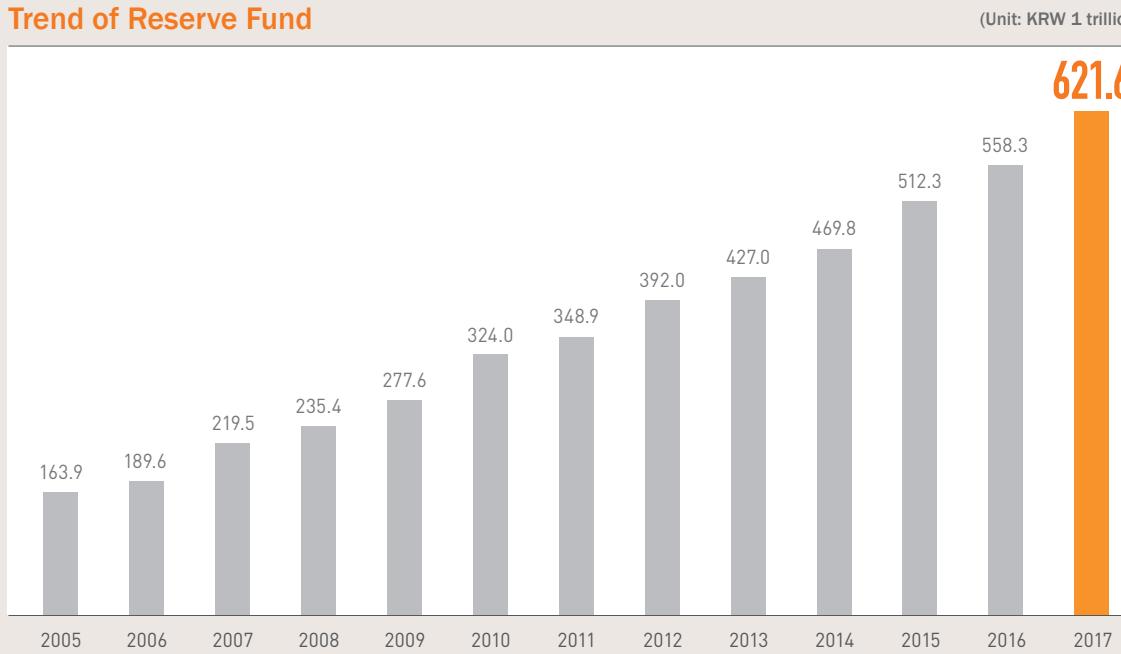


Weight of Global Investment in Total Fund

**28.4%**

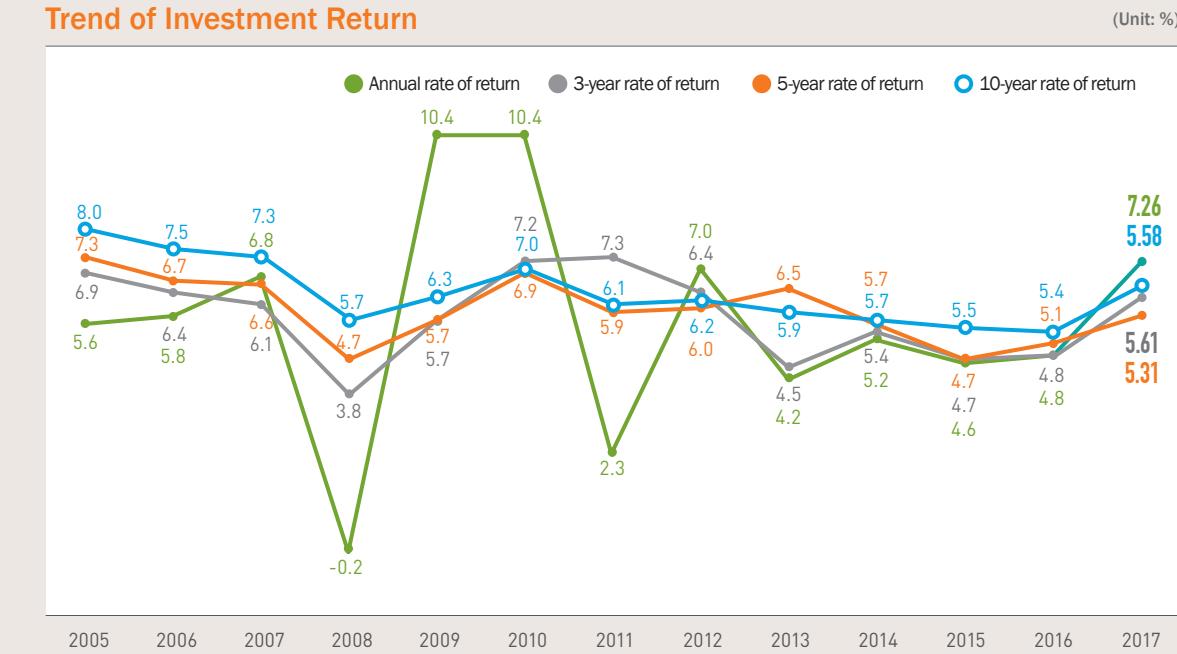
## FISCAL 2017 NPF HIGHLIGHTS

Trend of Reserve Fund



(Unit: KRW 1 trillion)

Trend of Investment Return



(Unit: %)

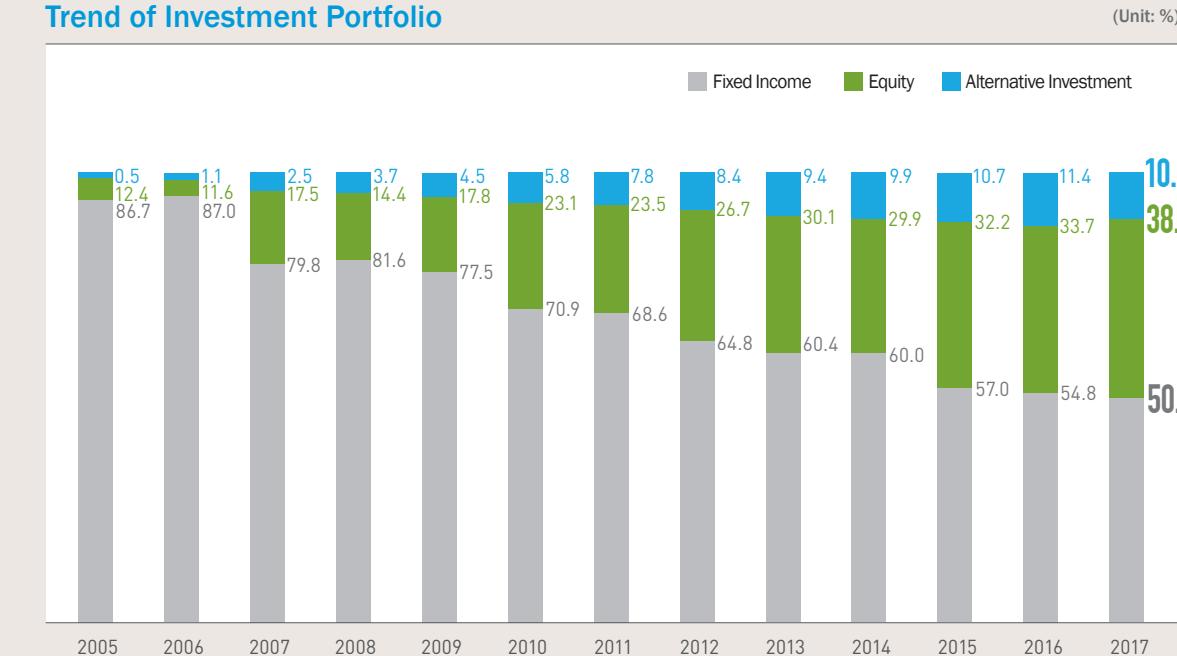
\* 3-year, 5-year and 10-year rates of return are the averages of the annualized returns in money weighted for the corresponding years (3, 5 and 10 years) from current year. For instance, the 3-year rate of return for 2017 is the averaged annual rate of return for 2015-2017. The 5-year rate of return for 2017 is the averaged annual rate of return for 2013-2017. The 10-year rate of return for 2017 is the averaged annual rate of return for 2008-2017.

Trend of Investment Income



(Unit: KRW 1 trillion)

Trend of Investment Portfolio



(Unit: %)

## CEO MESSAGE

### Message from Chairperson & Chief Executive Officer



The National Pension Fund (NPF) was formed in 1988 to ensure the financial security of the Korean people after retirement. It has been almost 30 years since its birth. With strong support from the Korean public, the NPF has become a robust safety net for Korean society with 21.82 million insured persons and 4.69 million beneficiaries. Starting from KRW 500 billion in 1988, the NPF is now valued at KRW 621.6 trillion as of the end of 2017, ranking third among global public pension funds.

2017 was a tough year for us. We faced plenty of challenges from increased volatilities in global financial markets, including the US Fed's rate hike and a continuation in domestic and international geopolitical risk. In light of the challenges aforementioned, we recorded an annual return of 7.26% and the highest of which we have seen with KRW 41.2 trillion, an increase of 2.51% and KRW 16.6 trillion from last year, in 2016.

We strive to ensure the long-term, stable generation of return. To that end, we have restructured our portfolio to increase the weight of equities and alternative investments after the overweighting of fixed income in the portfolio. As of the end of 2017, in preparation for the future global investment landscape and for the alpha generation, the weight of fixed income has been lowered to 50.6% while those of equities and alternative investments were increased to 38.6% and 10.8% respectively.

Furthermore, we are heavily active in global investment. In 2017, we targeted investments in broader markets overseas in order to overcome limitations with a small domestic market and compete with our global peers for a higher return. In line with the investment diversification strategy, we expanded our overseas allocation to 28.4% in 2017, responding to a dynamic market environment. We have also devised a plan to increase our overseas allocation further to 40% by 2022, utilizing the Mid-term Asset Allocation Plan while strengthening our global investment competitiveness with more overseas investing specialists and stable risk management systems.

As a result, our cumulative return has climbed to 6.02% and KRW 300 trillion as of the end of 2017. Given this pace of growth, the NPF is expected to reach KRW 1,000 trillion in just four years. Having said that, there are growing challenges to be faced, such as a low fertility rate, an aging population and a slow economy. Korea recorded its lowest-ever fertility rate last year with 1.05 births per woman. Despite such difficulties, it is our responsibility to grow and nurture our pension plan to bolster the Korean social welfare system. We will continue to fulfill that responsibility by managing the pension fund in compliance with the five investing principles of profitability, stability, public benefit, liquidity and independence.

The year 2018 marks the 30th birthday of the National Pension Fund. Looking back over the past 30 years, receiving a warm welcome on opening and subsequent encouragement for us to keep moving forward. We will channel our utmost effort in serving the public as a reliable custodian, providing the best pension service for all participants who partake in the fund. To that end, we will continue to do our best in building a competitive fund management system, while improving transparency in the decision-making process to maintain public trust and become a partner who always supports the Korean people in the "Homo Hundred Era".

I sincerely thank you all for your continued support and encouragement.

Thank you

Sung Ju, Kim  
Chairperson & Chief Executive Officer  
National Pension Service

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We Invest Today for  
People's Better Tomorrow

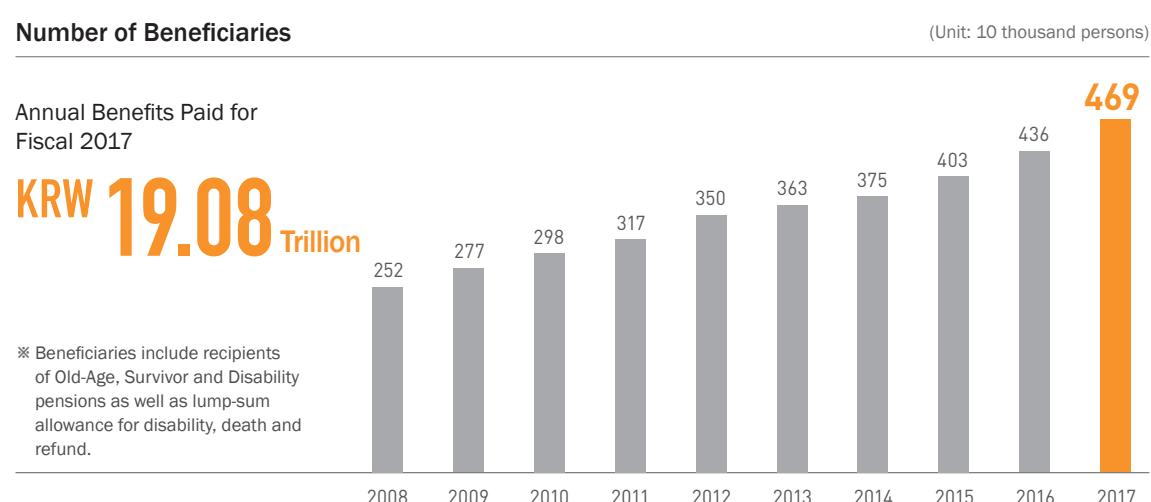
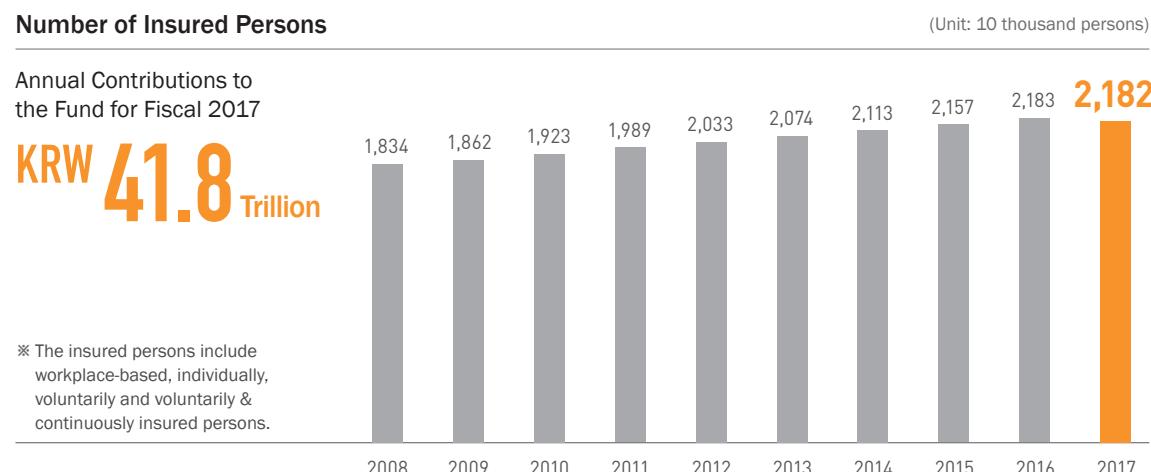
## I-1 NATIONAL PENSION SCHEME

**National Pension Scheme** is a social security system created to promote the life security and welfare of Korean people by providing Old-Age, Survivor and Disability Pensions.

The National Pension Scheme provides Old-Age, Survivor and Disability Pensions. The Old-Age Pension provides coverage to individuals who have lost the ability to earn a working income after retirement. The Survivor Pension protects the financial security of surviving families of deceased contributors or beneficiaries. The Disability Pension assists individuals who have lost the ability to work due to disease or accidents.

On January 1st, 1988 when it was first implemented, the National Pension Scheme covered employers and employees aged between 18 and 59 at a workplace with 10

employees or more. Since then, its coverage had expanded steadily. On April 1st, 1999, the NPS finally achieved nationwide coverage where almost every Korean was enrolled in the scheme. As of the end of December 2017, the NPS reported more than 4.69 million beneficiaries and 21.82 million insured persons. As such, the National Pension Fund is now serving as one of the key pillars in the Korean social insurance system along with National Health Insurance, Employment Insurance and Industrial Accident Compensation Insurance.



## I-2 NATIONAL PENSION SERVICE

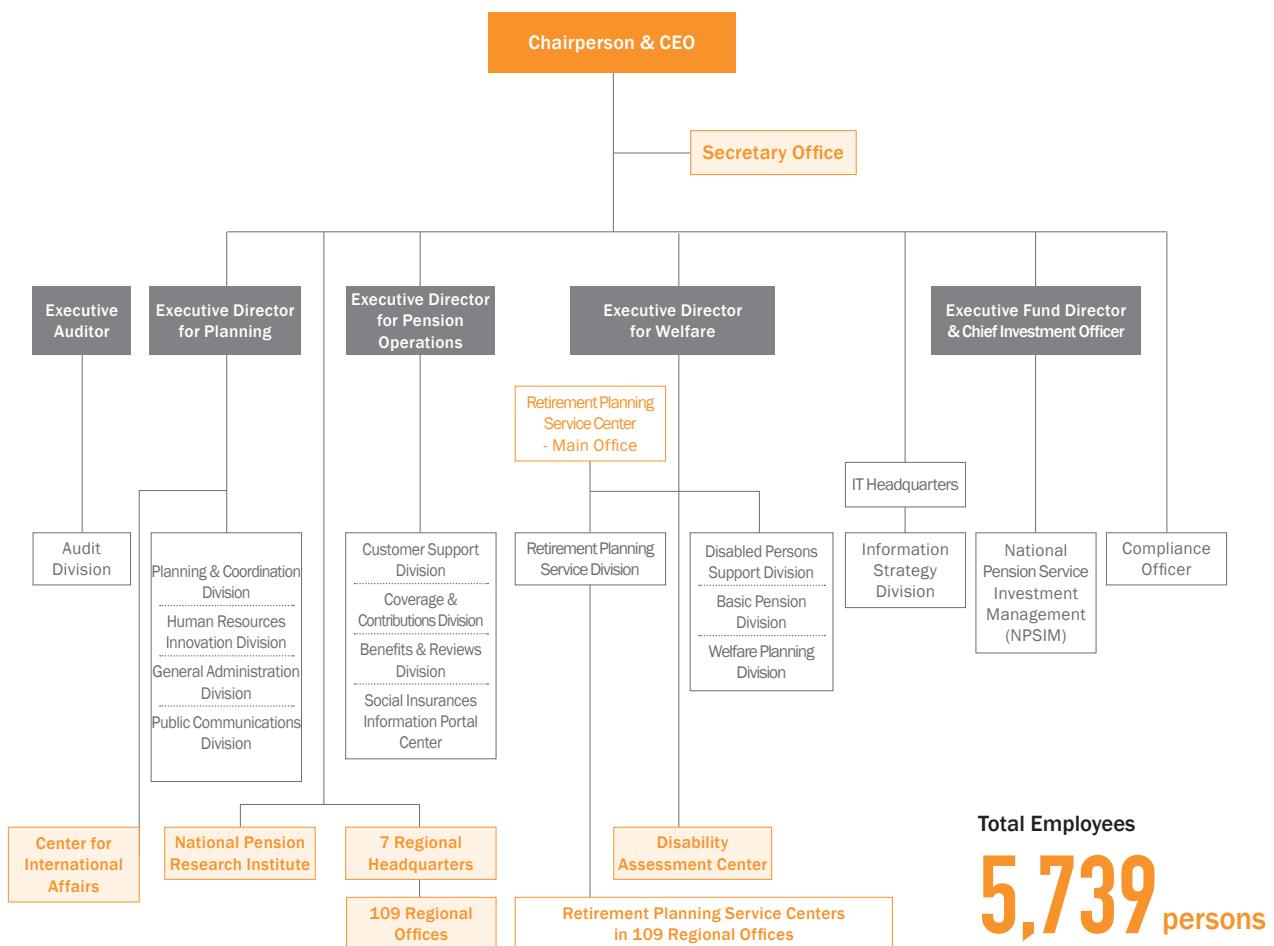
**National Pension Service (NPS)** was founded in 1987 to contribute to stabilizing public livelihood and promoting the welfare of Korean people by paying benefits and providing welfare services.

Under the vision of "Becoming a Best Partner for Happiness in the Age of 100-Year Longevity", the NPS provides pension services which includes coverage and benefit payments. The NPS also provides a wide range of welfare services: 1) CSA (Consulting on Successful Aging), 2) screening for eligibility of disability pensions, 3) support for the disabled and 4) their activities, the evaluation of the ability to work for persons eligible for the national basic living allowance provided by the Korean government.

As of January 1st, 2018, the NPS is composed of a

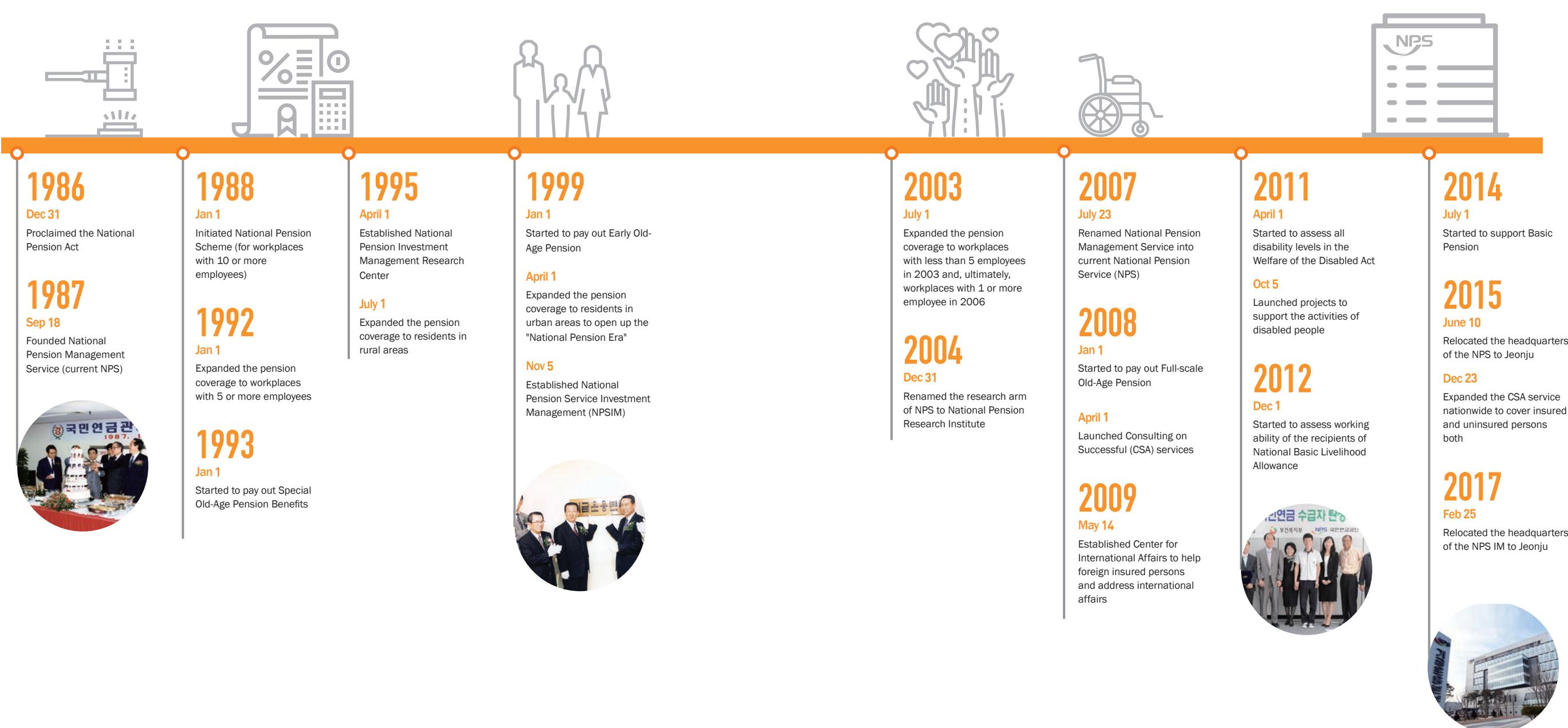
central Headquarter and 109 regional offices, 43 local sub-offices, the Disability Assessment Center, the Center for International Affairs and the National Pension Research Institute. The Headquarter consists of 13 divisions and one center, the National Pension Service Investment Management, a Compliance Office and the IT Headquarters.

NPS Investment Management (IM) is a professional asset management organization in charge of administering and managing the National Pension Fund as a source for benefit payments.



## HISTORY OF NATIONAL PENSION SCHEME

2018 marks the 31st anniversary of the foundation of NPS in 1987 and the 30th anniversary of the establishment of National Pension Scheme in 1988.





# NATIONAL PENSION FUND

- National Pension Fund
- National Pension Service Investment Management

**Sequana Tower**  
Invested in 2013 Located in Paris, France

## II-1 NATIONAL PENSION FUND

**National Pension Fund (NPF)** is a “Policy Reserve” set aside to ensure the stable payment of benefits.

The National Pension Fund (NPF) was established to secure the financial resources necessary for the seamless operation of the National Pension Scheme.

The fund is raised from contributions and other sources of income generated from the investment activities of the NPS IM. After deducting pension benefits and general and administrative (G&A) costs, the remainder is reserved and managed.

As of the end of 2017, the value of the total funds raised stood at KRW 785.3 trillion with cumulative pension contributions of KRW 485.3 trillion and an investment income of KRW 299.9 trillion. Up until now, around KRW

156.2 trillion has been spent on benefits leaving KRW 621.7 trillion under management.

The NPF is categorized into a number of sectors, including a Financial sector, a Welfare sector with an Other sector for management in compliance with the fund management guideline set by the Fund Management Committee. As of the end of 2017, KRW 621 trillion or 99.9% of the total reserved fund was allocated to the Financial sector for investing in equities, fixed incomes and alternative assets. The rest of KRW 600 billion or 0.1% was allocated to the Welfare and Others sectors.

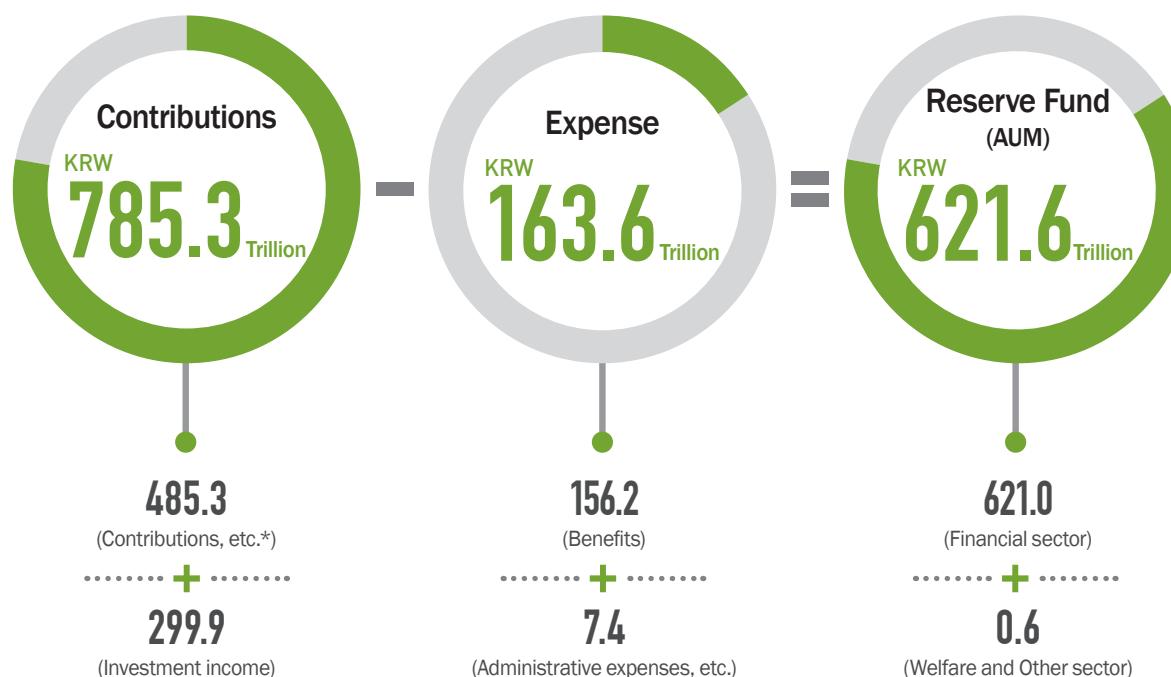
In 1988 when the National Pension Scheme came

into effect, there were 4.43 million insured persons and a reserve fund of KRW 527.9 billion. After 30 years, the NPF has seen dramatic growth in terms of the number of contributors, beneficiaries and the overall size of the fund. As of the end of 2017, there were 21.82 million insured persons and 4.69 million beneficiaries. The total reserved fund (AUM) was worth KRW 621.6 trillion, placing the NPF as third following GPIF in Japan and GPFG in Norway in all global public pension funds.

The cumulative investment income since the inception of 1988 has amounted to KRW 299.9 trillion or 48.2% of the total AUM.

The purpose of managing the NPF is to maximize return on investment while maintaining the long-term fiscal stability of the fund. To this end, the NPF is managed in accordance to its five overarching principles – The Principles of Profitability, Stability, Public Benefit, Liquidity and Independence.

### Fund Status



Note 1) Contributions (KRW 484.2 tn) + security deposit and other income (KRW 1.1 tn)  
2) All figures are rounded up.

### Investment Principles



#### Profitability

The principle of profitability is to maximize returns and thereby minimize financial pressure on insured persons, especially the next generation.



#### Stability

The principle of stability is to manage the fund within reasonable risk tolerance levels while taking the volatility of gains and losses in invested assets into consideration.



#### Public Benefit

The principle of public benefit is to accomplish its role in consideration of the influence on the nation's economy and financial markets due to its size and coverage for the whole nation.



#### Liquidity

The principle of liquidity is to secure liquidity for the consistent payment of benefits, particularly to preemptively prevent domestic financial markets from being impacted by the disposition of invested assets.



#### Independence

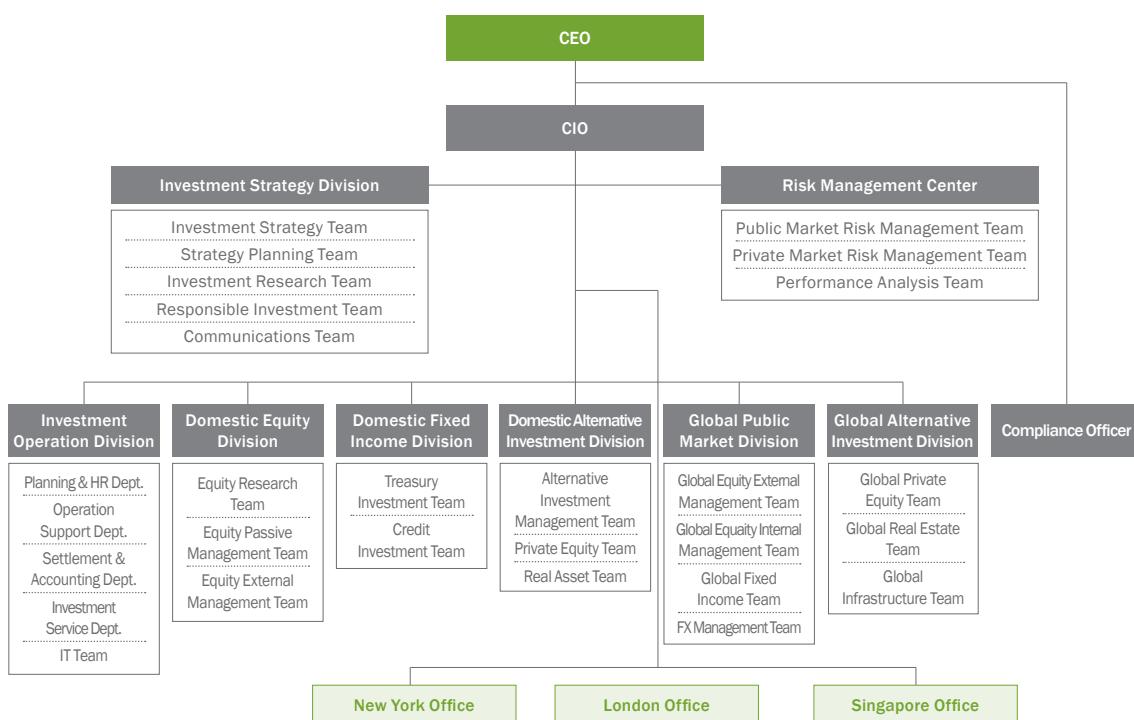
The principle of independence is to comply with the aforementioned principles, which should not be compromised for other purposes.

## II-2 NATIONAL PENSION SERVICE INVESTMENT MANAGEMENT

The NPS Investment Management (IM) is a professional investment and asset management organization in which well-experienced and talented portfolio managers invest in equities, fixed income and alternative assets.

The NPS IM was founded in November 1999 to professionally respond to a rapidly changing investment environment and achieve effective asset management. As of December 31st, 2017, the NPS IM was composed of seven divisions, one center, four departments, 24 teams and three overseas offices under the leadership of the Executive Fund Director and Chief Investment Officer of the NPS. The departments and teams are sub-groups of the divisions. As of the end of 2017, the total number of employees involved in the management of the NPF has accumulated to 346, which includes the Executive Fund Director, 13 local hires in three overseas offices and 18 compliance staff including a Compliance Officer.

The NPS IM has made consistent efforts to increase and develop human resources in order to stay competitive in the global asset management industry. The NPS IM has also set up the new "Organization and HR Management Plan" and hired more personnel specializing in overseas investments in accordance with the general global investment plan focusing on investment diversification.



The number of total employees at the NPS IM has increased by 153 or 72%, with 212 personnel in 2014 rising to 365 in 2017. Per-capita investment declined from KRW 2.2 trillion in 2014 to KRW 1.7 trillion in 2017. Out of the 153 employees, the number of portfolio managers in domestic investment rose by 21 or 37% from 56 in 2014 to 77 in 2017. The number of portfolio managers involved in overseas investments soared steeply by 65 or 127% from 51 in 2014 to 116 in 2017, with an emphasis on global investment.

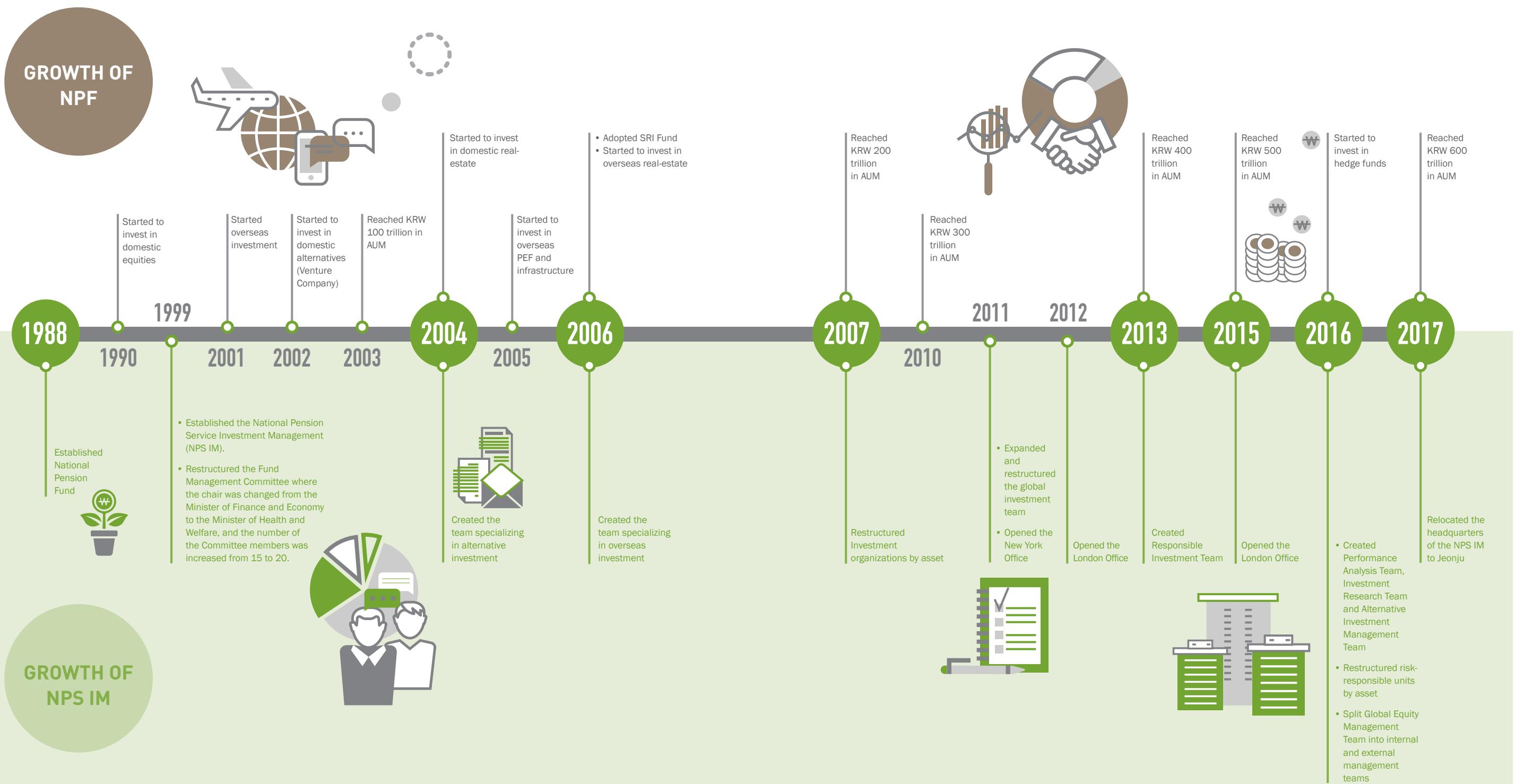
The workforce in overseas offices has also been extended. In 2014, there were only 9 employees in both the New York and London offices, but the number has since increased to 40 personnel, including 13 fund managers in three offices, which includes the newly opened Singapore Office. The overseas offices have also hired local fund managers who have a plethora of investing experience and networks in local markets. The overseas offices help acquire new investment opportunities in local markets and lay the foundation for faster and more efficient investment globally. While the NPS IM strengthens the planning and assessment of portfolios for global investment, the overseas offices will expand its previous roles of networking and market monitoring to encompass independent deal sourcing.

## ACTIVITIES

| Department                             | Activities                             | No. of Employees |
|--|--|------------------|
| Investment Strategy Division           | Investment Strategy Team               | 37               |
|  | Strategy Planning Team                 |                  |
|  | Investment Research Team               |                  |
|  | Responsible Investment Team            |                  |
|  | Communications Team                    |                  |
| Domestic Equity Division               | Equity Research Team                   | 31               |
|  | Equity Passive Management Team         |                  |
|  | Equity External Management Team        |                  |
| Domestic Fixed Income Division         | Treasury Investment Team               | 17               |
|  | Credit Investment Team                 |                  |
|  |  |                  |
| Domestic Alternative Division          | Alternative Investment Management Team | 29               |
|  | Private Equity Team                    |                  |
|  | Real Estate Team                       |                  |
| Global Public Market Division          | Global Equity External Management Team | 39               |
|  | Global Equity Internal Management Team |                  |
|  | Global Fixed Income Team               |                  |
|  | FX Management Team                     |                  |
| Global Alternative Investment Division | Global Private Equity Team             | 37               |
|  | Global Real Estate Team                |                  |
|  | Global Infrastructure Team             |                  |
| Risk Management Center                 | Public Market Risk Management Team     | 30               |
|  | Private Market Risk Management Team    |                  |
|  | Performance Analysis Team              |                  |
| Investment Operation Division          | Planning & HR Dept.                    | 87               |
|  | Operation Support Dept.                |                  |
|  | Settlement & Accounting Dept.          |                  |
|  | Investment Services Dept.              |                  |
|  | IT Team                                |                  |
| Overseas Offices                       | New York Office                        | 40               |
|  | London Office                          |                  |
|  | Singapore Office                       |                  |

\*Local hires in overseas offices included.

## HISTORY OF NATIONAL PENSION FUND



# III

## FUND MANAGEMENT

- Governance Structure
- Investment Decision Process
- Risk & Performance Management



Jem shopping mall

Invested in 2013 Located in Singapore

### **III-1 FUND MANAGEMENT GOVERNANCE**

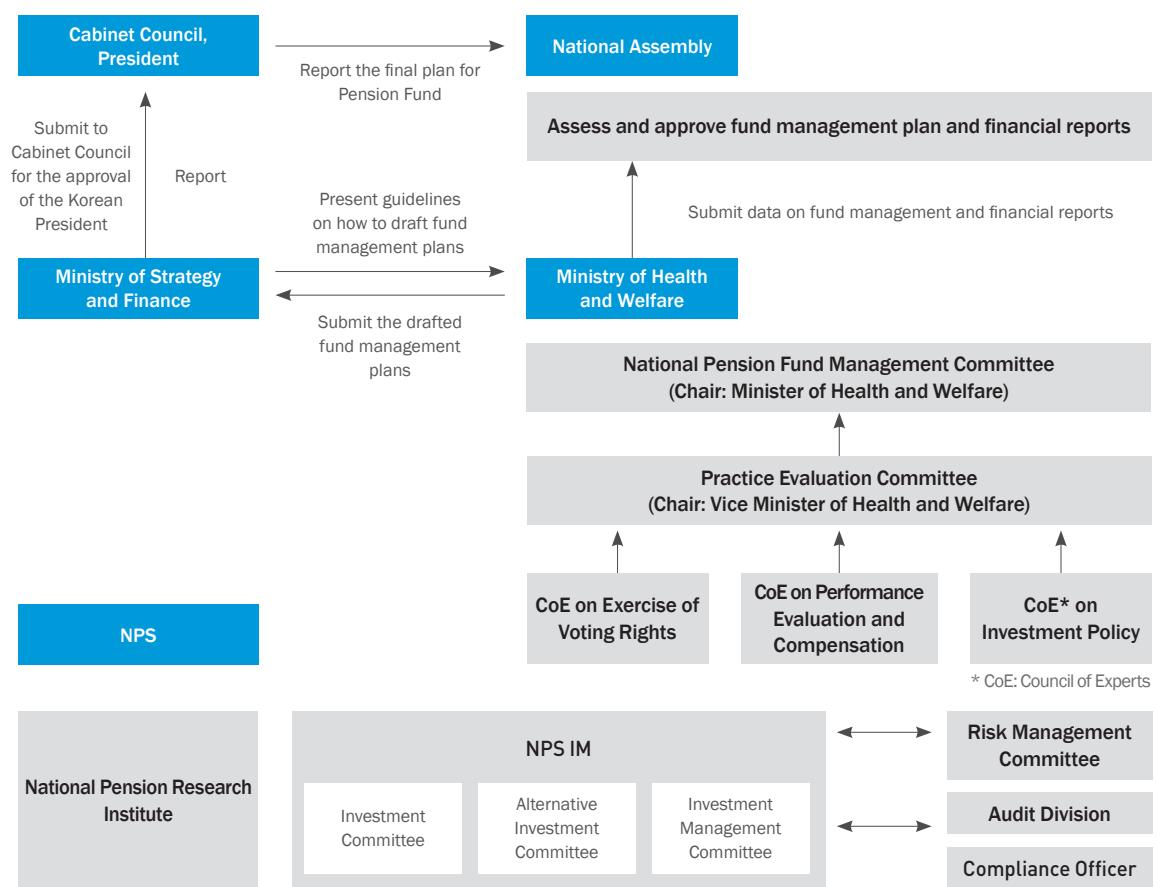
National Pension Fund (NPF) is managed systematically in accordance with the procedures set upon by the applicable laws.

The National Pension Fund (NPF) is administered and managed by the Minister of Health and Welfare pursuant to the National Pension Act. The Minister of Health and Welfare forms the Fund Management Committee, a supreme decision-making body, which reviews and approves important matters regarding fund management. The administration and management of the fund is entrusted to the National Pension Service. The NPS established an asset management organization.

The National Pension Service Investment Management

(NPSIM) established an asset management unit that is involved in general fund management ranging from tactical asset allocation to investment execution, market monitoring and portfolio management. The Minister of Health and Welfare sets up the fund management plan every year. The drafted plan is reviewed by the Fund Management Committee and the Cabinet Council of the Korean government, approved by the President of the Korean government and reported to the National Assembly of Korea.

## Governance Structure



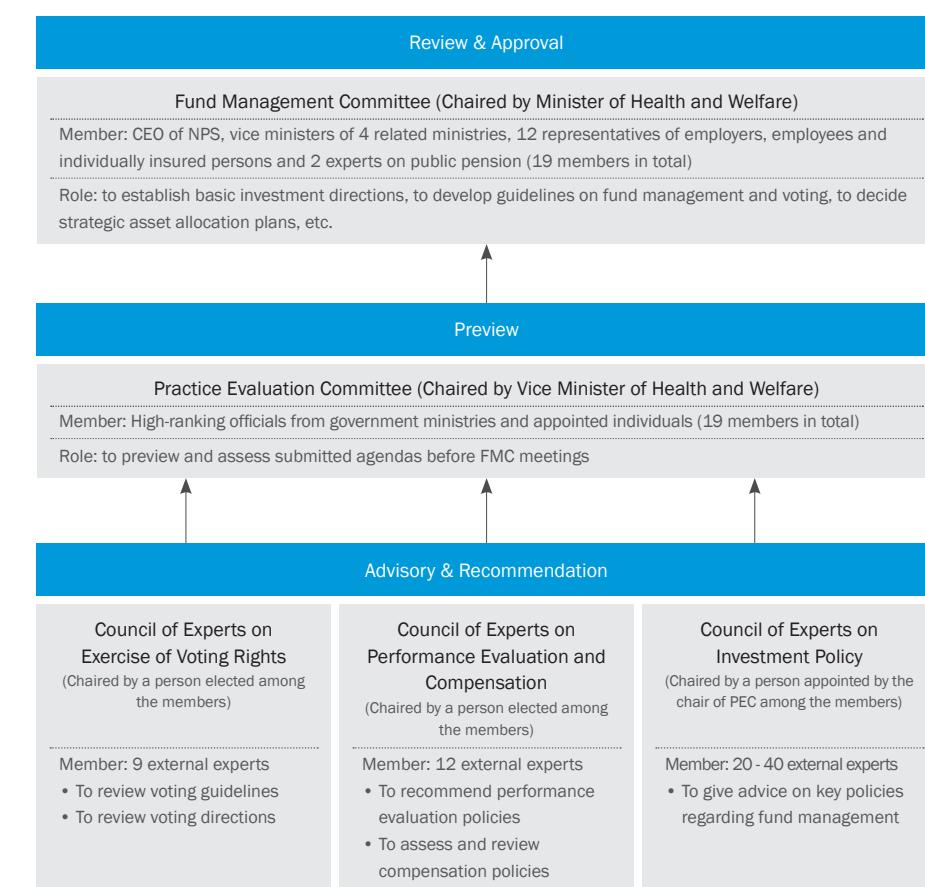
**Fund Management Committee reviews and approves major policies regarding fund management**

Established in accordance to Article 103 of the National Pension Act, the “Fund Management Committee” (FMC) is a supreme decision-making body for fund management policies. The FMC is composed of 20 members in total, this includes the Minister of Health and Welfare as chair, the NPS’s CEO and vice ministers from four Korean government ministries. In addition, the committee is staffed by 12 representatives of the insured and two professionals in relevant fields. The FMC holds meetings at least four times a year. During gatherings, the FMC reviews and approves important agendas, including fund management guidelines, voting guidelines, the mid-term and annual fund management plan, investment policy direction, the strategic asset allocation plan, performance evaluation

and compensation, and the external management ratio.

To assist the FMC in making expertise-based and efficient decisions, the “Practice Evaluation Committee (PEC)” was established pursuant to Article 104 of the National Pension Act. The PEC, consisting of professionals in economy, business and finance, accountants and lawyers, conducts a preliminary review on agendas and provides technical and professional opinions for the FMC. The PEC is chaired by the Vice Minister of Health and Welfare and staffed by five high-ranking government officials (ex-officio), 12 representatives of employers, employees and individually insured persons and two professionals in related fields.

## Decision-Making Flow on Fund Management



### FMC Meetings in 2017

| Division                          |                | Purpose  | Agenda   | Result   |
|-----------------------------------|----------------|----------|--|----------|
| Meeting                           | Date           |          |  |          |
| First Fund Management Committee   | Jan 28, 2017   | Approval | Target Extra Rate of Return Plan for 2017  | Approved |
|                                   |                | Report   | The Minute of the fourth FMC Meeting in 2016   | Reported |
|                                   |                | Report   | Progress on Global Investment Strategy and Project (2015-2019)                               | Reported |
|                                   |                | Report   | Relocation Plan for NPS IM   | Reported |
|                                   |                | Report   | Fund Management Performance as of End-Oct 2016 (provisional)                                 | Reported |
| Second Fund Management Committee  | Feb 28, 2017   | Approval | FY 2016 Financial Report   | Approved |
|                                   |                | Approval | Target Range of External Management  | Approved |
|                                   |                | Report   | The Minute of the first FMC Meeting in 2017 (summary)  | Reported |
|                                   |                | Report   | Plan on Prevention of Talent Loss After Relocation   | Reported |
|                                   |                | Report   | Fund Management Performance as of End-Dec 2016 (provisional)                                 | Reported |
| Third Fund Management Committee   | April 28, 2017 | Report   | The Minute of the second FMC Meeting in 2017 (summary)                                       | Reported |
|                                   |                | Report   | Report on Amendment to Voting Guideline  | Reported |
|                                   |                | Report   | Report on Investment in Daewoo Shipbuilding & Marine Engineering Co.                         | Reported |
|                                   |                | Report   | Fund Management Performance as of End-Feb 2017 (provisional)                                 | Reported |
| Fourth Fund Management Committee  | May 25, 2017   | Approval | Fund Management Plan for 2018  | Approved |
|                                   |                | Report   | The Minute of the third FMC Meeting in 2017 (summary)  | Reported |
|                                   |                | Report   | Fund Management Performance as of End-March 2017 (provisional)                               | Reported |
| Fifth Fund Management Committee   | June 28, 2017  | Approval | Fund Management Performance Evaluation Plan for 2016   | Approved |
|                                   |                | Approval | Compensation Plan in NPS IM for 2016   | Approved |
|                                   |                | Report   | The Minute of the fourth FMC Meeting in 2017 (summary)                                       | Reported |
|                                   |                | Report   | The Basic Plan of the fourth NPF Actuarial Projection  | Reported |
|                                   |                | Report   | NPF Fund Management Performance as of End-April 2017 (provisional)                           | Reported |
| Sixth Fund Management Committee   | Sep 29, 2017   | Report   | The Minute of the fifth FMC Meeting in 2017 (Summary)  | Reported |
|                                   |                | Report   | Report on Improvement of Fund Management System, Responsible Investment and Stewardship Code | Reported |
|                                   |                | Report   | NPF Fund Management Performance as of End-July 2017 (provisional)                            | Reported |
|                                   |                | Report   | Plan on Risk Management for Alternative Investment   | Reported |
| Seventh Fund Management Committee | Dec 1, 2017    | Report   | The Minute of the sixth FMC Meeting in 2017 (Summary)  | Reported |
|                                   |                | Report   | Plan on Establishment of Special Committee on Social Responsible Investment                  | Reported |
|                                   |                | Report   | Interim Report on Stewardship Code Research for Responsible Investment                       | Reported |
| Eighth Fund Management Committee  | Dec 27, 2017   | Report   | NPF Fund Management Performance as of End-Sep 2017 (provisional)                             | Reported |
|                                   |                | Report   | The Minute of the seventh FMC Meeting in 2017 (summary)                                      | Reported |
|                                   |                | Report   | NPF Fund Management Performance as of End-Oct 2017 (provisional)                             | Reported |
|                                   |                | Approval | Target Extra Rate of Return Plan for 2018  | Approved |

**Under the FMC, three special committees – Council of Experts on Exercise of Voting Rights, Council of Experts on Performance Evaluation & Compensation and Council of Experts on Investment Policy - exist for efficient operation and expertise-based decision making for the FMC.**

First, the “Council of Experts on the Exercise of Voting Rights” conducts a periodic review of the voting guidelines to ensure transparent and reasonable voting on invested shares. The council also makes decisions on contended voting that is difficult to be decided by the NPS IM alone. The council is composed of a maximum of nine independent professionals including one chair. Its members are appointed by the Minister of Health and Welfare among the candidates recommended by the Korean government, the representatives of employers, employees and individually insured persons and research institutes based on expertise and representativeness.

Second, the “Council of Experts on Investment Policy” consists of one chair and 20 to 40 members including professionals in asset management, finance, alternative investment, global investment and the development of natural resources. The council reviews mid-term and annual fund management plans, investment policies that require object assessment and the development and revision of investment policies.

Third, the “Council of Experts on Performance Evaluation & Compensation” offers advice and policy recommendation for fair performance evaluation and to

attract and retain talent. The council also sets incentive rates for employees at the NPS IM with authority delegated by the FMC. The council is composed of a maximum of 12 independent professionals with its members being appointed by the Minister of Health and Welfare among the candidates recommended by groups of insured persons and professionals.

The names of the members of the FMC, PEC and three Councils of Experts on the Exercise of Voting Rights, Investment Policy and Performance Evaluation and Compensation are disclosed on the website of the Ministry of Health and Welfare (MOHW) ([www.mohw.go.kr](http://www.mohw.go.kr)), but only in the Korean version. (Go to: Korean version of the MOHW website > Policy > Pension > NPF Finance)

In addition, the NPS runs four internal committees – the Risk Management Committee, Investment Committee, Alternative Investment Committee and Investment Management Committee – in order to add more specialties and transparency in the decision-making process on each asset class. Each committee is composed of both internal and external professionals. The meetings are held regularly or occasionally, as seen below:

|                                  | Activities   | Timeline                 | Membership  |
|----------------------------------|--|--------------------------|---|
| Risk Management Committee        | <ul style="list-style-type: none"> <li>To establish basic guidelines for risk management</li> <li>To establish and manage risk tolerance or loss tolerance</li> <li>To establish and operate the risk management system</li> <li>To manage possible risks posed by the adoption of new assets or practices</li> </ul>        | Quarterly & Occasionally | <ul style="list-style-type: none"> <li>Chair: CEO of NPS</li> <li>Members: CIO of NPS and 5-7 external experts</li> </ul>   |
| Investment Committee             | <ul style="list-style-type: none"> <li>To establish annual and monthly asset management plans</li> <li>To conduct periodic inspection on the status of each asset</li> <li>To select and manage financial institutions to contract</li> <li>To deliberate and approve the exercise of shareholders' voting rights</li> </ul> | Monthly & Occasionally   | <ul style="list-style-type: none"> <li>Chair: CIO of NPS</li> <li>Members: Heads of each division, Risk Management Center and relevant teams</li> </ul>   |
| Alternative Investment Committee | <ul style="list-style-type: none"> <li>To decide assets for alternative investment</li> <li>To change key conditions for alternative investment</li> </ul>   | Occasionally             | <ul style="list-style-type: none"> <li>Chair: CIO of NPS</li> <li>Members: 3 internal members (2 heads of divisions and Risk Management Center) and 3 external member (external experts, etc.)</li> </ul> |
| Investment Management Committee  | <ul style="list-style-type: none"> <li>To clear up domestic and international invested assets in the incident of bankruptcy, default, etc.</li> </ul>  | Occasionally             | <ul style="list-style-type: none"> <li>Chair: Head of Risk Management Center</li> <li>Members: 3 internal member (the-chairman-appointed heads of divisions or teams) and 3 external experts</li> </ul>   |

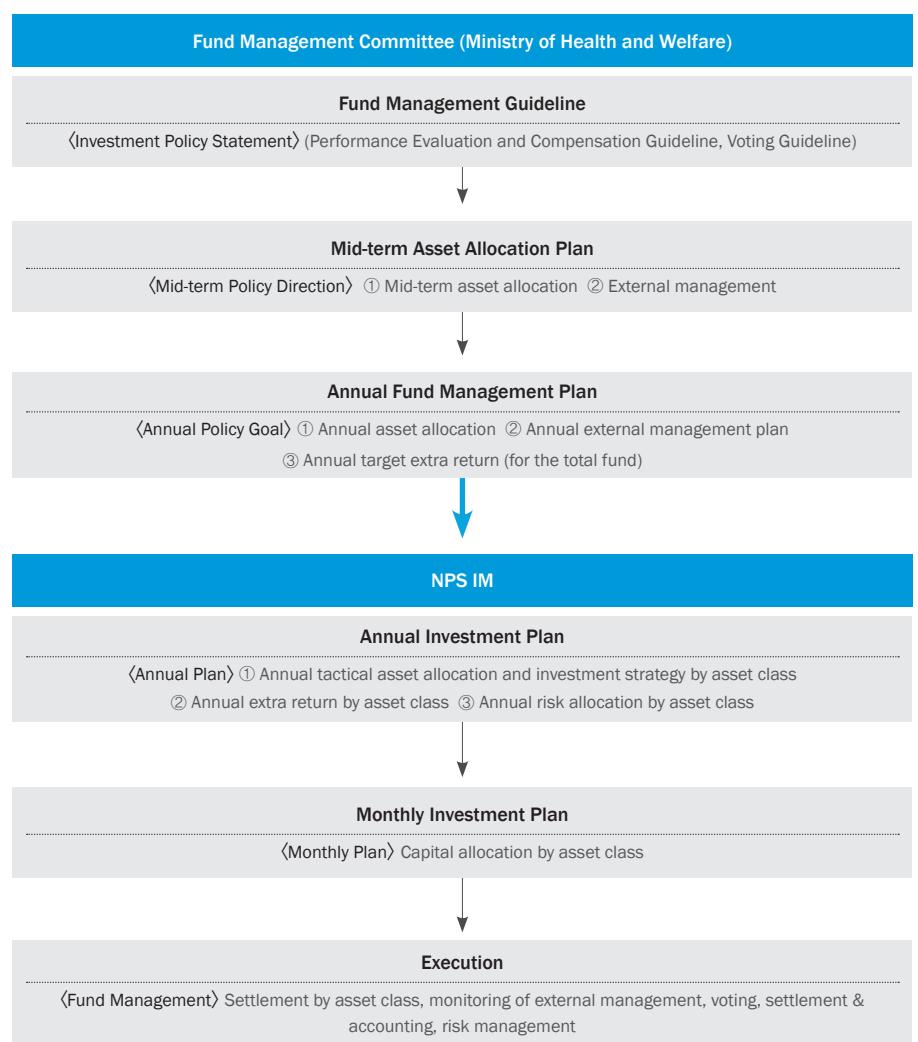
## III-2 INVESTMENT DECISION PROCESS

The Ministry of Health and Welfare prepares the “National Pension Fund Management Guideline” every year according to the National Pension Act in order to set out the investment policy. The Guidelines comes into effect after being approved by the FMC.

The Guidelines, are made public every year, acts as an investment policy statement that help stakeholders understand how pension funds are being managed. It further guides employees of the NPS IM to gain an understanding of target asset allocation and investment policies and strategies.

The NPS acts as a custodian entrusted with asset management activities according to the National Pension Act. To serve its fiduciary duty, the NPS complies with every policy and guideline in its IPS (the National Pension Fund Management Guideline) and other requirements for each asset class and sector.

### Fund Management Process



The FMC sets up a 5-year asset allocation plan every year and an annual asset allocation plan to implement the former.

The Mid-term Asset Allocation Strategy is a five-year asset management plan to enhance stability and profitability of the pension funds and efficiently manage them. The FMC sets out the Mid-term Asset Allocation Strategy for the next five years annually based on the domestic and global economic outlook, and investment return by asset and risk.

The FMC also prepares an annual asset allocation plan, otherwise known as the Annual Fund Management Plan, every year in consideration of financial market trends and fund status. This plan is an intermediary plan which seeks to achieve the specific targeted return, as clarified in the Mid-term Asset Allocation Plan. It defines

the permissible investment range by asset class to respond to the rapidly changing investment environment.

The NPS executes investments according to the policies and guidelines approved by the FMC, and further manages investment portfolios based on the characteristics of each asset class. The NPS also sets up a monthly investment plan reflecting financial markets and economic circumstance, which is reviewed and approved by its internal Investment Committee. Large-scale projects such as infrastructure, real estate domestically and abroad are decided by the Alternative Investment Committee where external experts assess the feasibility and possible risk of potential deals.

### 2018-2022 Mid-Term Asset Allocation Plan

In 2017, the FMC set out a target return of 5.1% for the period of 2017 to 2022 on the basis of the real economic growth outlook and the inflation rate. The target portfolio for the same period is 20% or so for Domestic Equity, 25% or so for Global Equity, 40% or so for Domestic Fixed Income, 5% or so for Global Fixed Income and 10% or more for Alternatives. Of particular note, the allocation to fixed income is expected to be reduced to 45% or so by 2022 from more than 50% in 2017.

| Type                  | End-Year 2017 (actual) |          | 2018        | 2022        |
|-----------------------|------------------------|----------|-------------|-------------|
|                       | Amount (KRW Trillion)  | Rate (%) | Annual Plan | 5-Year Plan |
| Equity                | 239.8                  | 38.6     | 36.4%       | 45% or so   |
| Domestic Equity       | 131.5                  | 21.2     | 18.7%       | 20% or so   |
| Global Equity         | 108.3                  | 17.4     | 17.7%       | 25% or so   |
| Fixed Income          | 314.4                  | 50.6     | 51.1%       | 45% or so   |
| Domestic Fixed Income | 290.8                  | 46.8     | 47.1%       | 40% or so   |
| Global Fixed Income   | 23.6                   | 3.8      | 4.0%        | 5% or so    |
| Alternatives          | 66.8                   | 10.8     | 12.5%       | 10% or more |
| Total                 | 621.0                  | 100      | 100.0%      | 100%        |

\* The plans were approved by the FMC in May 2017.

## III-3 RISK & PERFORMANCE MANAGEMENT

**Investment risk has grown due to increasingly uncertain economic and financial conditions at home and abroad. In response, the NPS detects and controls a range of risk factors.**

The NPS thoroughly manages and controls a range of risks that impact the stability and profitability of the NPF, including market risk, credit risk, liquidity risk, operational risk and legal risk. The NPS also consistently monitors the risk tolerance levels of the total fund and each asset class, as defined in the strategic asset allocation. The NPS ensures the generation of return on investment within appropriate risk tolerance to prevent any exposure to excessive risk in a systematic way.

The NPS IM has a dedicated unit assigned to risk management for the NPF, called the Risk Management Center. In addition, there is the Risk Management Committee (RMC) chaired by the CEO and staffed by external professionals in operation to effectively manage all types of risks associated with fund management in the NPS.

In 2017, the NPS IM improved the way that the risk management system works and reinvented the managing model risk system to streamline the risk managing process, strengthen data and the model monitoring system. The NPS IM has also strengthened the pre-management of active risk through the generation of relative VaR and its post-management by comparing and compensating for tracking errors.

In addition, the early warning system using expected default frequency (eDF) to prevent credit risk was expanded to include companies listed in overseas exchanges. The system ensures strong prior risk management by raising alert for investment in global equities and fixed incomes in advance. With the planned diversification of investment portfolios, the exposure to alternative investment is expected to increase. In brace of this, the NPS IM has expanded the coverage of sovereign risk management to alternative assets beyond fixed income and equities abroad. As hedge funds were adopted into the portfolio in 2016, the NPS IM selected a global advisory firm to perform operational due diligence (ODD). In addition to the self-monitoring of the NPS IM, the firm additionally monitors operational risk. The NPS IM has also established an external fund management process, which is implemented prior to executing investments in single funds.

To manage operational risks, the NPS IM has not just ensured deal stability in terms of legal compliance but has also monitored unfair transactions. The NPS IM has also set up procedures and protocol to monitor externally managed alternative assets based on risk level and has strengthened the monitoring process for

externally managed funds. The NPS IM also operates a task force team for information security, which encrypts all classified information using digital rights management (DRM) technology. Furthermore, the team has enhanced internal control for information security by improving the monitoring of internal data leakage and provided current and soon to be retirees with lectures on information security.

Aside from global equities and alternatives, the FMC decided to lower the FX hedge ratio for overseas fixed income to 50% by the end of 2017 and 0% by the end of 2018. According to this decision, the NPS IM separated asset allocation and FX exposure to manage FX exposures of each asset class in an integrated manner. The NPS IM has also allocated currencies of G4 countries (USD, EUR, JPY and GBP) strategically in consideration to their allocation rates in each benchmark index, so that assets were not concentrated into certain foreign currencies. In addition to major currencies, the NPS IM is holding a wide range of currencies including the Australian dollar (AUD) and the Swiss Franc (CHF) to diversify the risk of foreign exchange rate volatility.

Meanwhile, the NPS has developed responsive measures for each scenario on a basis of a multiple scenario analysis as well as a sensitivity analysis. Volatilities in financial markets at home and abroad grew due to many factors including the US Fed's interest rate hike and certain geopolitical risks such as North Korea's nuclear tests. Such uncertainties were subdued by the responsive measures set in advance. The NPS will continue to monitor global financial conditions and consider short-to-long term impact on the portfolios for stability and profitability in the fund management process.

**The performance on fund management is evaluated each year to further improve the fund management process.**

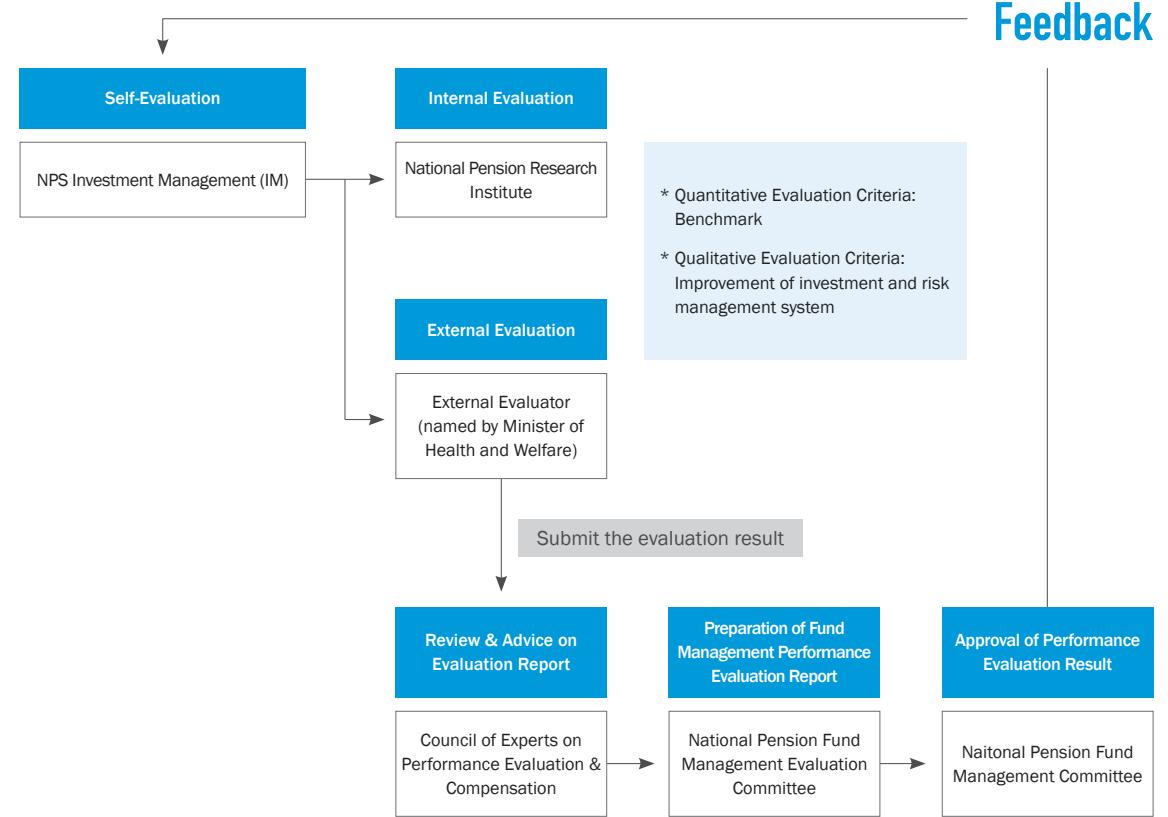
The performance on fund management is evaluated to gain public trust through unbiased and transparent information disclosure and encourage the advancement of the fund management process using the evaluation result. The evaluation is conducted every year based on performance of the last three years or more, which consists of a quantitative analysis of benchmark comparisons and qualitative analysis on the fund management system and risk management improvement.

The performance evaluation is conducted internally and externally. The National Pension Research Institute and an external agency prepare each of their own evaluation reports that are reviewed by the Council of

Experts on Performance Evaluation & Compensation and the Practice Evaluation Committee (PEC).

The performance evaluation is consistent with the Global Investment Performance Standards (GIPS®) for international credibility. The time-weighted rates of return are used to evaluate overall performance while the rate of return for the total fund is money-weighted. Having said that, book value-based rates of return can be used on a case by case basis, depending on the assets' investment conditions. The rate of return is calculated by (1) using the total profits with realized and unrealized gains and losses combined and by (2) deducting real transaction costs incurred during the evaluation period.

### Performance Evaluation Process



## Feedback

# IV

## FUND MANAGEMENT STATUS AND PERFORMANCE

- 2017 Portfolio
- Investment Performance for 2017
- Responsible Investment & Voting



Macerich Freehold Raceway Mall  
Invested in 2009 Located in New Jersey, US

## IV-1 2017 PORTFOLIO

**As of the end of December, 2017, the total assets of the NPF were estimated to be KRW 621.6 trillion at market value, up KRW 63 trillion or 11% year-on-year.**

The total assets of the NPF are categorized into Financial (99.9%) and Welfare & Other sectors (0.1%). Of the Financial sector, the largest share is that of Fixed Income at 50.6% or KRW 314.4 trillion, as of the end of 2017. The allocation to Domestic Fixed Income was 26.8% or KRW 290.8 trillion while the allocation to Global Fixed Income was 3.8% or KRW 23.6 trillion. The allocation to Domestic and Global Fixed Income was both down by 3.8% and 0.4%, respectively in comparison to the end of 2016.

The second-largest share was Equity at 38.6%. The allocation to Domestic Equity was 21.2% or KRW 131.5 trillion while the allocation to Global Equity was 17.4% or KRW 108.3 trillion. The allocation to Domestic and Global Equity was both up by 2.8% and 2.1%, respectively in comparison that atto the end of 2016.

In addition to traditional assets such as equity and fixed income, the NPS invests in non-traditional, alternative assets to generate alpha return. As of the end of 2017, the allocation to alternative assets was 10.8% or KRW 66.8 trillion. Of the assets, KRW 44.6 trillion was invested globally in real estate, infrastructure, private funds and hedge funds, while KRW 22.3 trillion was invested domestically in real estate, infrastructure, venture capital (VC), corporate restructuring company (CRC), private funds, etc. The allocation to Domestic and Global Alternative was both down by 0.3%, respectively.

The allocation to entire overseas investments in equities, fixed income and alternatives increased from 27% or KRW 150.8 trillion in 2016 to 28.4% or KRW 176.4 trillion in 2017. The allocation to overseas investment is expected to increase to 40% by 2022, according to the Mid-term Asset Allocation Plan.

### 2017 Portfolio by Asset Class

| Type                           | End-Year 2017 (A) |        | End-Year 2016 (B) |        | Difference (A-B) |        |
|--------------------------------|-------------------|--------|-------------------|--------|------------------|--------|
|                                | Amount            | Weight | Amount            | Weight | Amount           | Weight |
| Total                          | 621.6             | 100.0  | 558.3             | 100.0  | 63.4             | 0.0    |
| Financial Sector <sup>1)</sup> | 621.0             | 99.9   | 557.7             | 99.9   | 63.4             | 0.0    |
| Equity                         | 239.8             | 38.6   | 188.0             | 33.7   | 51.8             | 4.9    |
| (Domestic)                     | 131.5             | 21.2   | 102.4             | 18.3   | 29.2             | 2.8    |
| (Global)                       | 108.3             | 17.4   | 85.7              | 15.3   | 22.6             | 2.1    |
| Fixed Income <sup>2)</sup>     | 314.4             | 50.6   | 306.0             | 54.8   | 8.4              | -4.2   |
| (Domestic)                     | 290.8             | 46.8   | 282.6             | 50.6   | 8.2              | -3.8   |
| (Global)                       | 23.6              | 3.8    | 23.4              | 4.2    | 0.2              | -0.4   |
| Alternative                    | 66.8              | 10.8   | 63.7              | 11.4   | 3.2              | -0.6   |
| (Domestic)                     | 22.3              | 3.6    | 21.9              | 3.9    | 0.3              | -0.3   |
| (Global)                       | 44.6              | 7.2    | 41.7              | 7.5    | 2.8              | -0.3   |
| Welfare Sector <sup>3)</sup>   | 0.1               | 0.02   | 0.1               | 0.02   | 0.0              | 0.0    |
| Other Sector <sup>4)</sup>     | 0.5               | 0.1    | 0.5               | 0.1    | 0.0              | 0.0    |

Note 1) The Financial Sector is composed of cash and cash equivalents held or available for investment purpose (e.g. the purchase of financial instrument or real assets).

2) The short-term assets of KRW 1,727.3 billion are included. The short-term assets are composed of domestic bonds of KRW 1,390.3 billion and overseas bonds of KRW 337 billion.

3) The Welfare Sector refers to the rental service of "welfare town" (Cheong-pung resort facilities), children & the elderly facilities and the financing for credit recovery support and emergency loan for senior citizens (NPS Silver Loan).

4) The Other Sector includes the income generated by operating NPS buildings and fund reserves, and deposit interests.

5) All figures are rounded up and their might be difference in latter digits from original data accordingly.

To some level, the NPS outsources assets to external asset managers in order to tap into professional asset managing service for risk diversification and return generation.

Given the fund scale is growing at a fast pace, the NPS manages the fund both internally and externally. The target range of external management is approved by the FMC. The portfolios for externally managed assets are managed by asset class within the target range in consideration of many factors such as assets' characteristics, market condition and external managers' competence. The NPS IM has a special committee to ensure the fair process of selecting qualified external managers, called the "External Asset Manager Selection Committee" consisting of mainly external professionals.

As of the end of 2017, the externally managed assets amounted to KRW 239.2 trillion, an increase of KRW 30.6 trillion from KRW 208.6 trillion in 2016. Of the Financial sector, their portion rose to 38.5% by 1.1% year-on-year.

By asset, the externally managed assets included Domestic Equity at KRW 60.2 trillion, Global Equity at KRW 71.2 trillion, Domestic Fixed Income at KRW 34.8 trillion, Global Fixed Income at KRW 12.8 trillion, Domestic Alternative at KRW 15.6 trillion and Global Alternative at KRW 44.6 trillion. Currently, the entire assets in Global Alternatives are managed externally.

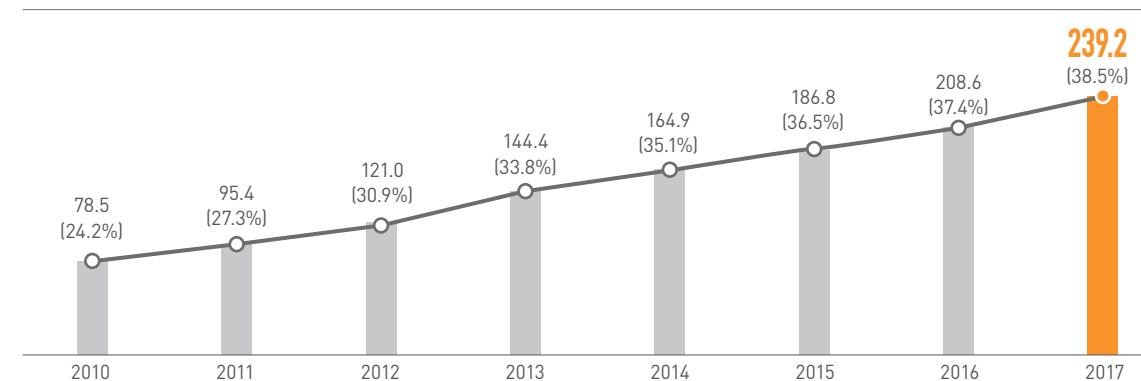
### External Management by Asset

(As of the end of 2017, Unit: KRW 1 trillion)

| Asset      | Total | Equity | Fixed Income | Alternative |
|------------|-------|--------|--------------|-------------|
| Amount     | 239.2 | 131.4  | 47.6         | 60.2        |
| (Domestic) | 110.7 | 60.2   | 34.8         | 15.6        |
| (Global)   | 128.5 | 71.2   | 12.8         | 44.6        |

### Trend of External Management

(Unit: KRW 1 trillion)



### Target Range of External Management for 2017 (approved by the FMC in Feb 2017)

(Unit: %)

|              | Domestic Equity | Global Equity | Domestic Fixed Income | Global Fixed Income | Alternative Investment |
|--------------|-----------------|---------------|-----------------------|---------------------|------------------------|
| Target Range | 45.0~65.0       | 55.0~75.0     | 10.0~14.0             | 50.0~70.0           | 65.0~95.0              |

## IV-2 INVESTMENT PERFORMANCE FOR 2017

Last year, the NPS recorded KRW 41.2 trillion in investment income and 7.26% in annual rate of return, showing a big jump from KRW 24.5 trillion and 4.75% in 2016. It was a remarkable performance not just compared to 2016, but also an all-time high return since the inception of the NPF in 1988. In 2017, the annualized rate of return since 1988 was 6.02% and cumulative investment income since the same year amounted to KRW 24.5 trillion.

By asset, Domestic Equity achieved 26.31% in return, contributing to boosting the return for total assets in 2017. Its performance was improved on the back of a global economic recovery and strong corporate earnings. For the Financial sector, the 5-year annualized rate of return was recorded at 5.18%. For the total fund, the cumulative rate of return since the inception of 1988 was 6.02%, suggesting a stable performance over the long term.

### Investment Return

| Type                           | 2017    |                    | 2016    |                    | 1988 – 2017          |                    |
|--------------------------------|---------|--------------------|---------|--------------------|----------------------|--------------------|
|                                | Amount  | Rate <sup>4)</sup> | Amount  | Rate <sup>4)</sup> | Amount <sup>5)</sup> | Rate <sup>6)</sup> |
| Total                          | 411,941 | 7.26               | 245,439 | 4.75               | 2,999,200            | 6.02               |
| Public Sector <sup>1)</sup>    | -       | -                  | -       | -                  | 190,827              | 8.26               |
| Financial Sector <sup>2)</sup> | 411,896 | 7.28               | 245,390 | 4.76               | 2,800,381            | 5.92               |
| Equity                         | 368,392 | 18.70              | 131,497 | 7.79               | 982,744              | 8.38               |
| (Domestic)                     | 269,947 | 25.88              | 53,396  | 5.59               | 650,830              | 8.37               |
| (Global)                       | 98,445  | 10.62              | 78,100  | 10.63              | 331,914              | 8.42               |
| Fixed Income <sup>3)</sup>     | 14,451  | 0.48               | 57,296  | 1.98               | 1,546,561            | 4.80               |
| (Domestic)                     | 14,359  | 0.51               | 48,071  | 1.80               | 1,450,630            | 4.84               |
| (Global)                       | 92      | 0.04               | 9,224   | 4.13               | 95,931               | 4.36               |
| Alternative                    | 29,627  | 4.53               | 57,088  | 9.91               | 275,074              | 8.14               |
| (Domestic)                     | 13,020  | 5.91               | 12,216  | 5.56               | 107,582              | 6.56               |
| (Global)                       | 16,607  | 3.83               | 44,872  | 12.59              | 167,492              | 9.62               |
| Welfare Sector                 | -22     | -1.65              | -17     | -1.35              | 6,117                | 6.45               |
| Other Sector                   | 66      | 0.61               | 67      | 0.63               | 1,875                | 1.77               |

Note 1) New investment from Public Sector has been suspended since 2000. All capitals invested in Public Sector were fully recovered in late 2005.

2) Operational expenses (for fund management) - KRW 56.2 bn for 2017 and KRW 272.1 bn for the period of 1988 and Dec 2017 - are included.

3) The short-term assets are included in Fixed Income.

4) The rate of return for the applicable period or year is money-weighted.

5) The cumulative return refers to the one for the period of 1988 and Dec 2017.

- How to Calculate Money-Weighted Rate of Return

Money-weighted rate of return = Investment income ÷ Average investment balance

- Investment income comes from gain/(loss) on trading and valuation, dividends, securities lending, banking interest, etc.

- Average investment balance is an average investment principal weighted-average based on the period.

### Performance

(Unit: KRW 1 trillion, %, %p)

|                       | Annual Rate of Return in 2017 | 5-Year Annualized Rate of Return (2013–2017) | Cumulative Investment Income (1988–2017) |
|-----------------------|-------------------------------|--|--|
| Financial Sector      | 7.28                          | 5.18   | 280.04                                   |
| Domestic Equity       | 26.31                         | 5.66   | 65.08                                    |
| Global Equity         | 10.68                         | 11.29  | 33.19                                    |
| Domestic Fixed Income | 0.51                          | 3.08   | 143.56                                   |
| Global Fixed Income   | 0.22                          | 3.02   | 9.63                                     |
| Alternative           | 4.65                          | 9.12   | 27.51                                    |
| Short-term assets     | 0.83                          | 1.93   | 1.46                                     |
| Welfare Sector        | -1.65                         | -1.33  | 0.61                                     |
| Other Sector          | 0.61                          | 0.89   | 0.19                                     |
| Total                 | 7.26                          | 5.31   | 299.92                                   |

Note 1) The rate of return for the Financial Sector is time-weighted while the ones for the Welfare and Other Sectors, and the total fund is money-weighted.

2) Operational expenses (for fund management) - KRW 56.2 bn for 2017 and KRW 272.1 bn for the period of 1988 and Dec 2017 - are not included in the investment income of the Financial Sector.

3) The cumulative investment income for the total fund includes KRW 19.1 tn of the 1988–2005 return in the Public Sector.

### 5-Year Annualized Rate of Return by Asset

(Unit: %)



Note 1) The 5-year rate of return is an average of the annualized returns in money weighted for the last five years.

## IV-3 RESPONSIBLE INVESTMENT & VOTING

**When investing, the NPS takes into consideration non-financial factors such as Environment, Society and Governance (ESG).**

The NPS has laid the foundation for responsible investments that incorporate Environmental, Society and Governance (ESG) factors in the investing process through the amendment of the National Pension Act in January, 2015 and the Fund Management Guideline in April 2016. Before the amendment, the NPS invested in SRI (Socially Responsible Investment) funds since 2006, which has expanded steadily to KRW 6.3 trillion, as of the end of 2016. The NPS has also established the “ESG System” where the integrated report of financial and non-financial data and ESG research is made and provided to investing teams in order to guide them in responsible investing.

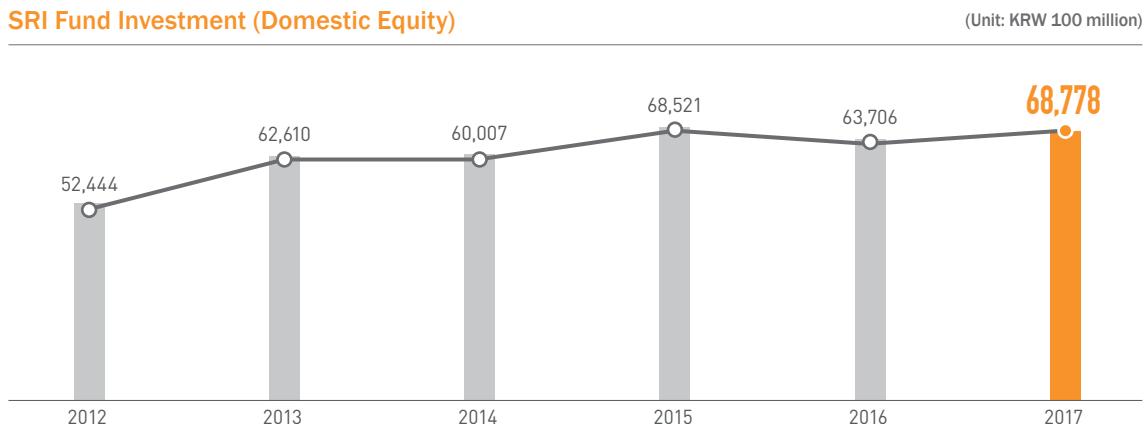
Under the ESG System, a wide range of ESG-related data including ESG scores of each company invested in, ranking trends, peer-based analysis, etc. are delivered to investing teams to support responsible investment. In 2017, the NPS added the assessment of Controversial Issues\* and other new indices such as product safety in the ESG evaluation system, which improved portfolio stability in terms of ESG-based investment. The NPS also operates virtual funds to test responsible investment and minimize trial and error in the process.

The NPS also encourages investee companies in Korea to set up and exercise reasonable dividend policies voluntarily through a program dubbed “Dialogue with Company”. The practice of Korean companies paying

small dividends has been blamed for undervalued Korean stocks. To fix this practice, the NPS set up guidelines to implement the “Plan on Encouraging Dividend Payment of NPF Domestic Equities” approved by the FMC in June, 2015. According to this guideline, low-dividend companies are guided into improving their dividend policies in a fair and transparent manner through “Dialogue with Company”. Should there be no improvement, they are placed on a watch list which is then made public.

As a responsible investor, the NPS also performs in active shareholder engagement. Should investee companies cause any issues that might complement shareholder values, the NPS conducts an interview with them to see what happened and request for corrective measures to be put in place.

The NPS exercises voting rights in the interest of contributors and beneficiaries and in search of maximized shareholder values. In general, standards, procedures and practices with regard to the exercise of voting rights are consistent with “Voting Guidelines”. In particular, controversial issues may be referred to the Council of Experts on Exercising Voting Rights for final decision. The voting procedures are implemented in an objective and transparent manner. All of the voting results are disclosed on the NPS website within 14 days of the shareholder meeting.



In 2017, the NPS attended the 708 AGMs and voted on 2,899 agendas. The result was 2,519 approvals (86.89%), 373 rejections (12.87%) and 7 indifferences/abstentions (0.24%). Out of the 373 rejections, there were 225 cases (60.3%) for nomination of directors and auditors, 65 cases (17.4%) for changes in articles of incorporation, 43 cases (11.5%) for raising compensation limits and 40 cases for others, including excessive concurrent activities inhibiting the fulfillment of duties, destruction of company values or violation of shareholders' interest and unauthorized hiring of retired public officials unauthorized by the Government Ethics Committee of Korea.

Meanwhile, the NPS launched the “Research on Responsible Investment and Stewardship Code for NPF” through which the practices of globally leading pension funds were benchmarked and analyzed. Based on the research, the NPS developed a roadmap toward active responsible investing and improved responsible investment guidelines. Regarding the adoption of the stewardship code, the NPS also studied overseas cases, the impact on capital market, the legal and operational limits in the exercise of shareholder rights and seven principles in the code. The detailed guidelines on the code and any follow-up measures will be established after discussions with the FMC.

### Voting Guideline

|                                  |  |
|----------------------------------|--|
| Principle                        | <ul style="list-style-type: none"> <li>The purpose of the voting is to maximize the assets in the NPF.</li> </ul>  |
| Duty of Care                     | <ul style="list-style-type: none"> <li>The voting shall be exercised duly and in good faith to meet the best interest of the formally and currently insured and beneficiaries.</li> </ul>  |
| Enhancement of Shareholder Value | <ul style="list-style-type: none"> <li>The voting shall be exercised to increase the shareholder values.</li> </ul>  |
| Responsible Investment           | <ul style="list-style-type: none"> <li>To generate stable return in the long term, Environment, Society and Governance (ESG) factors shall be considered in voting.</li> </ul>   |
| Voting                           | <ul style="list-style-type: none"> <li>The voting shall be exercised for all stocks held under the name of the NPS, provided that; the NPS holds less than 1/100 of total issues by company and less than 5/1000 of domestic stocks held by the NPS (or less than 5/1000 of global stocks held by the NPS.)</li> </ul> |

### Voting Records for the Last 5 Years

| Year | Company | AGM | Agendas | Result     |               |               |
|------|---------|-----|---------|------------|---------------|---------------|
|      |         |     |         | Agreed (%) | Disagreed (%) | Abstained (%) |
| 2017 | 772     | 708 | 2,899   | 2,519      | 373           | 7             |
|      |         |     |         | 86.89%     | 12.87%        | 0.24%         |
| 2016 | 753     | 796 | 3,010   | 2,692      | 303           | 15            |
|      |         |     |         | 89.43%     | 10.07%        | 0.50%         |
| 2015 | 791     | 749 | 2,836   | 2,542      | 287           | 7             |
|      |         |     |         | 89.63%     | 10.12%        | 0.25%         |
| 2014 | 767     | 735 | 2,775   | 2,519      | 251           | 5             |
|      |         |     |         | 90.77%     | 9.05%         | 0.18%         |
| 2013 | 712     | 645 | 2,601   | 2,319      | 281           | 1             |
|      |         |     |         | 89.16%     | 10.80%        | 0.04%         |

# V

## PORTFOLIO AND PERFORMANCE BY ASSET CLASS

- Domestic Equity
- Global Equity
- Domestic Fixed Income
- Global Fixed Income
- Alternative Investment



## V-1 DOMESTIC EQUITY

As of the end of 2017, the allocation to Domestic Equity was KRW 131.5 trillion, accounting for 21.2% of the total assets. The rate has increased by 2.8% year-on-year, marking the highest growth among other asset classes. The investment of the NPF in the Korean stock market has increased by 0.18% over the year to 6.96%.

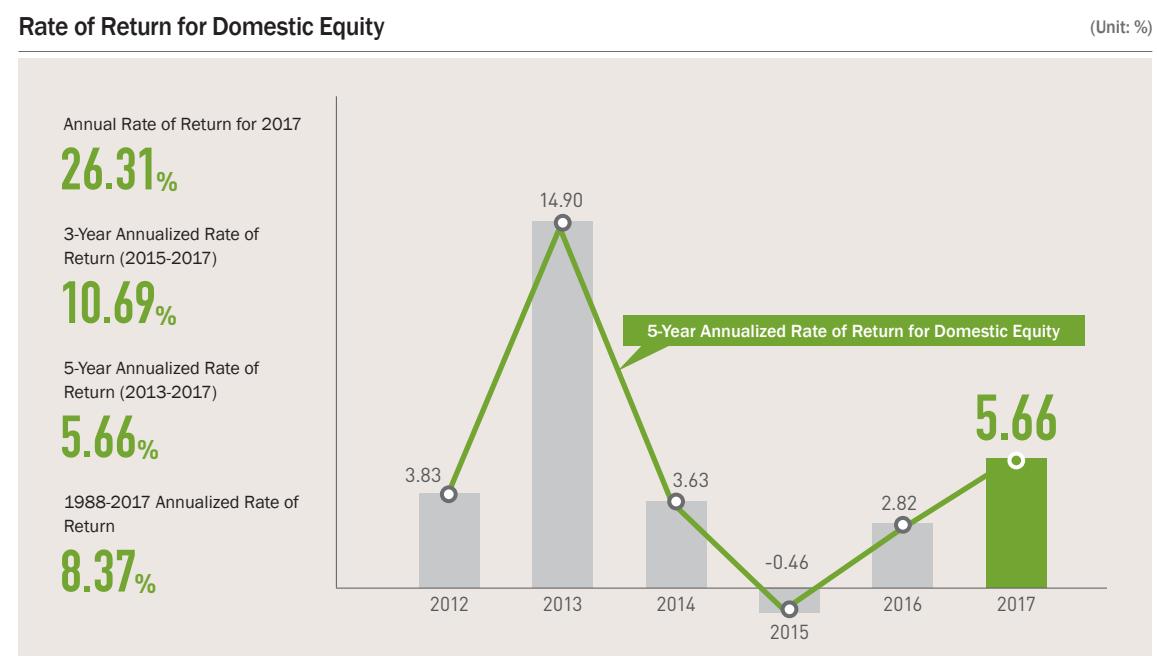
As the size of the NPF grows, the NPS invests in the Korean stock market very carefully in consideration of its impact on the market. In 2017, the NPS outsourced KRW 60.2 trillion or 45.8% of Domestic Equity to external asset managers to tap into professional asset managing services and spread the discretion power on investment. In 2017, the NPS made continuous efforts to provide long-term and stable portfolio management and develop various strategies for more systematic investments in domestic equities.

The NPS also strengthened quantitative factors in internal active-styled investment of domestic equities to generate alpha return gradually. The market

responsiveness of active investment has been lowered due to the growing fund.

As a result of such efforts, Domestic Equity recorded a whopping 26.31% in annual return, an increase of 20.67% year-on-year. The relative return against the benchmark was recorded at over 2.23%. The main cause of such an extraordinary performance in Domestic Equity was analyzed and found to be the result of the global economic recovery and a strong Korean stock market. In particular, passive investment of domestic equities recorded 28.22% in return and 0.75% in relative return against the benchmark last year, resulting from stable portfolio management.

In Domestic Equity, the active internal investment posted 28.62% in return and over 1.15% in relative return against the benchmark last year due to a large-cap rally. The active external investment performed fairly well with a decent abstract return of 23.91%, but the relative return against the benchmark was down by 1.55% due to a relatively weak mid-cap.

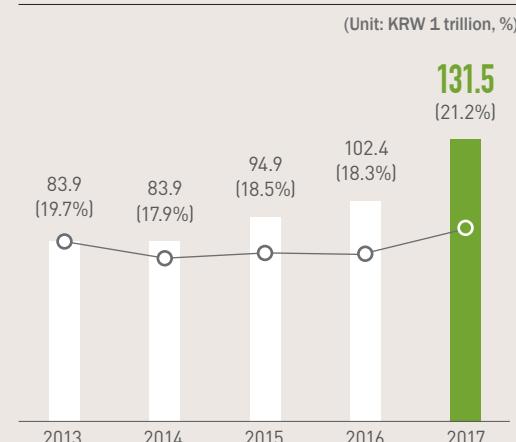


Note 1) The annual rates of return for a single year (2017), 3 years and 5 years are time-weighted while the 1988-2017 annualized rate of return is money-weighted.

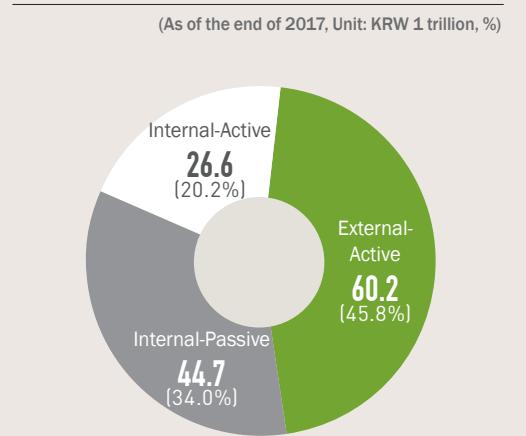
|        |  | Weight of Stock Holdings in Korean Stock Markets |        |        |        |
|--------|--|--|--------|--------|--------|
|        |  |  |        |        |        |
|        |  | 2017   | 2016   | 2015   |        |
|        |  | Amount   | Weight | Amount | Weight |
| KOSPI  |  | 126.7  | 7.9    | 98.2   | 7.5    |
| KOSDAQ |  | 3.7  | 1.3    | 2.6    | 1.3    |
| Total  |  | 130.4  | 6.9    | 100.8  | 6.7    |
|        |  |  |        | 94.9   | 6.5    |

Note 1) The table above doesn't include all unlisted stocks and cash equivalents, futures and options managed by external managers.

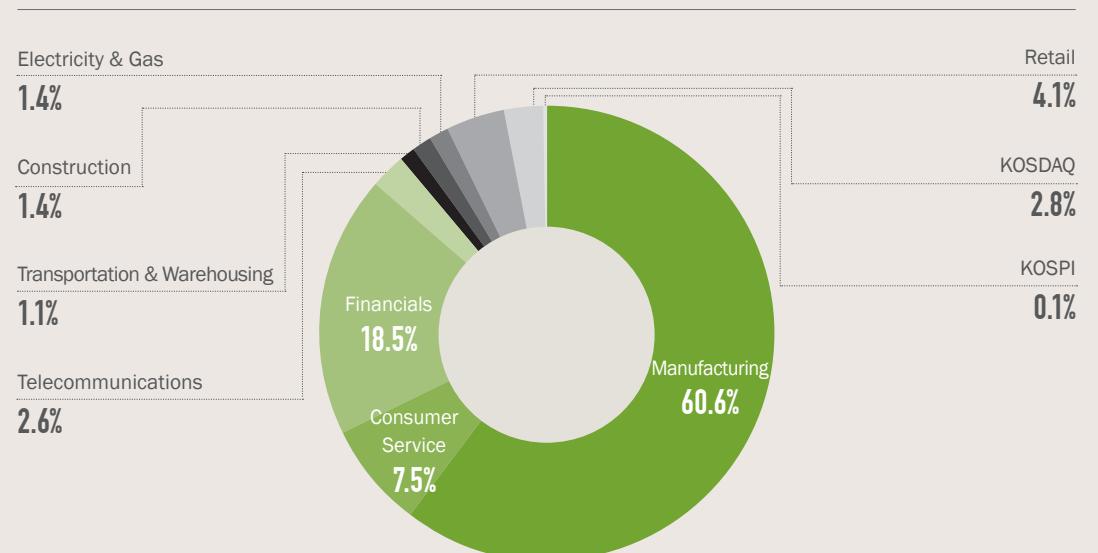
### Weight of Domestic Equity in Total Fund



### Weight of Domestic Equity by Style



### Weight of Domestic Equity by Sector



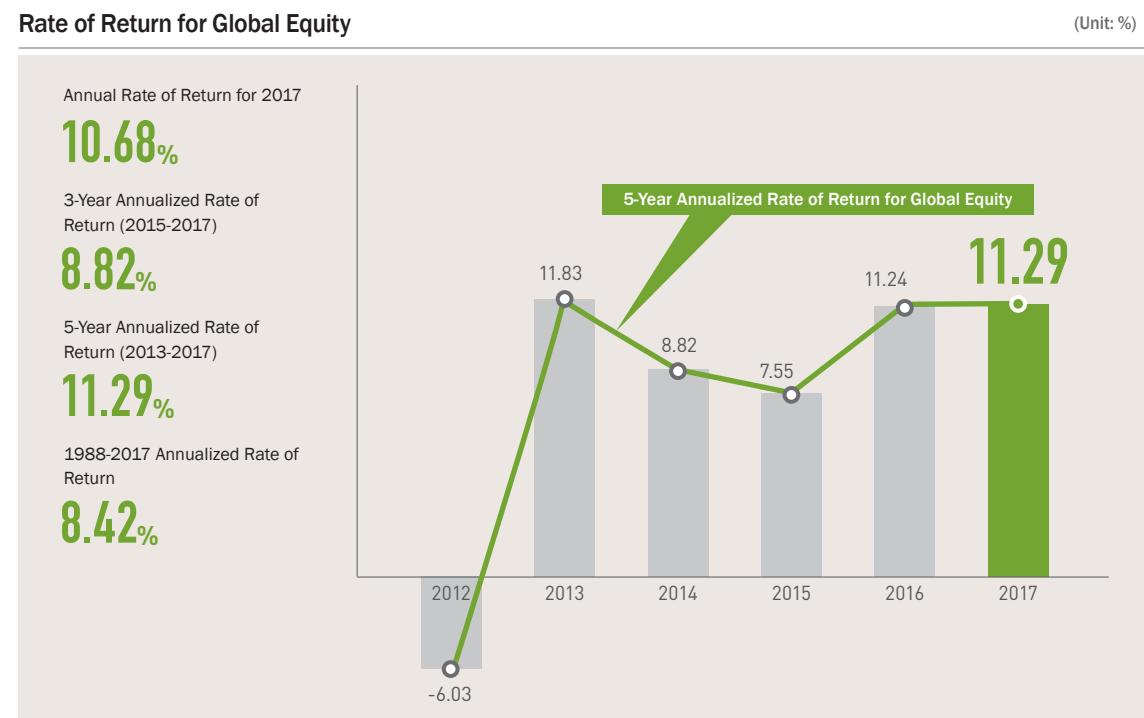
## V-2 GLOBAL EQUITY

As of the end of 2017, the allocation to Global Equity was KRW 108.3 trillion, accounting for 17.4% of the total assets. The rate increased by 2.1% year-on-year, and is expected to increase continuously to 25% or so by 2022 according to the Mid-term Asset Allocation Plan.

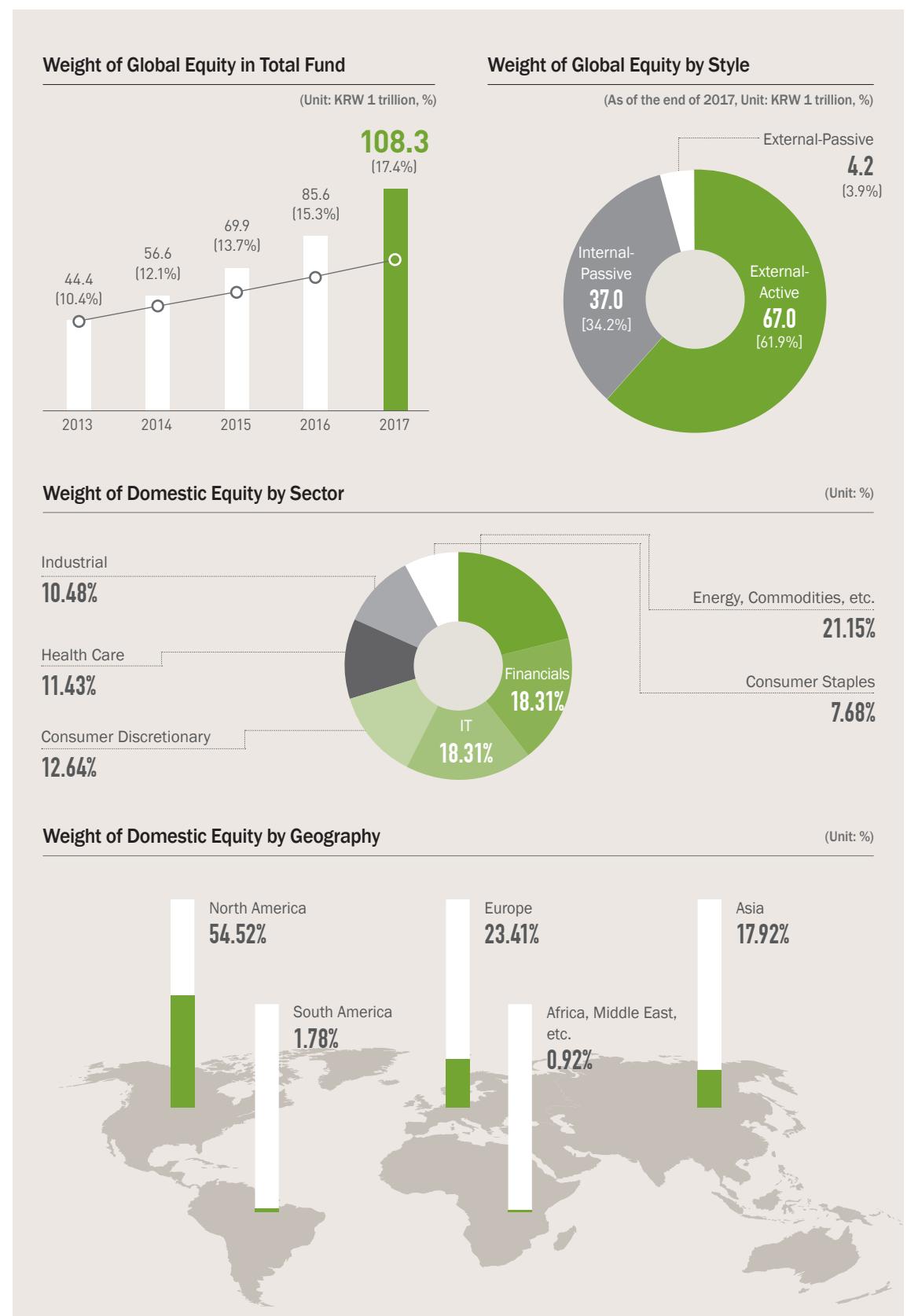
The investment in Global Equity is divided into passive investment pursuing stability and liquidity and active investment targeting emerging markets and strategy diversification for high return within proper risk tolerance. In 2017, the NPS was in pursuit of more proficient portfolio management and sustainable generation of alpha return by increasing allocation to Global Equity. Accordingly, the NPS explored a wide range of factors through differentiated factor research and advanced the portfolio construction process. The NPS also conducted research on competitive investment strategies implemented by leading asset managers abroad. The NPS also conducted a follow-up process after the introduction of new quantitative model, "Contextual Quant Fund", for internal management. For external management, the NPS utilized overlay strategy to narrow bias against the

benchmark on region and industry in order to diversify investment strategy.

In 2017, Global Equity recorded 10.68% in annual return, an increase of 0.55% year-on-year with the relative return against the benchmark that rose by 1.12%. Global stocks closed high last year, with stronger global economic recovery and corporate earnings. In particular, a rebound in commodity prices and stable Chinese economic growth led to the emerging market rally. The gain, however, was offset by foreign exchange loss from the strong won, which pulled down the abstract rate of return in won. In Global Equity, the passive investment beat the benchmark in every sector, with the relative return of 0.32%, while the abstract return was recorded at 9.89% in won (or 24.05% in US dollars). Emerging markets (EM) were the largest contributors. The active investment also beat the benchmark in every sector, except for developed markets (DM), with the relative return of 1.58% while the abstract return was recorded at 11.14% in won (or 25.37% in US dollars).



Note 1) The annual rates of return for a single year (2017), 3 years and 5 years are time-weighted while the 1988-2017 annualized rate of return is money-weighted.



## V-3 DOMESTIC FIXED INCOME

As of the end of 2017, the allocation to Domestic Fixed Income was KRW 290.8 trillion at market value, an increase of KRW 8.2 trillion year-on-year. The short-term assets were included therein. Given the increasing size of the fund, the real allocation is expected to keep growing while the target allocation is set to decline in line with the investment diversification strategy. The weighting of Domestic Fixed Income in the total portfolio was reduced by 3.8% year-on-year to 46.8% in 2017, and is expected to decrease to roughly 40% by 2022 according to the Mid-term Asset Allocation Plan.

The weight of Domestic Fixed Income in the Korean bond market increased by 0.4% year-on-year to 14.8% in 2017. In the protracted global trend of low growth and low interest, the NPS has restructured the portfolios to diversify domestic fixed income while taking into consideration its potential impact on the Korean bond market.

Following the previous year, the NPS also focused on searching and investing in undervalued, yet decent credit-rated bonds last year. In 2017, the NPS invested in a wide range of state-issued bonds including the

National Housing Bond, Regional Development Bond and mortgage-backed securities issued and guaranteed by the Korea Housing Finance Corporation. The NPS also invested in asset-backed securities that have good underlying assets. The NPS achieved a higher return than investing in bonds with the same credit rating.

In 2017, Domestic Fixed Income recorded 0.51% in annual return, with a relative return against the benchmark of -0.07%. In Domestic Fixed Income, passive investment posted negative return relative to the benchmark in corporate bonds due to loss on the debt-restructuring plan of Daewoo Shipbuilding & Marine Engineering Co., which was offset by government and public bonds that generated a positive return with optimized duration for interest rates and asset swap through the comparison of relative value. Like passive investments, active investments also posted negative returns due to the loss on Daewoo's debt-restructuring plan. For Domestic Fixed Income, the 3-year and 5-year rates of return were recorded at 2.19% and 3.08%, respectively.

### Rate of Return for Domestic Fixed Income



Note 1) The annual rates of return for a single year (2017), 3 years and 5 years are time-weighted while the 1988-2017 annualized rate of return is money-weighted.  
2) The short-term assets are excluded

### Weight of Bond Holdings in Korean Bond Markets

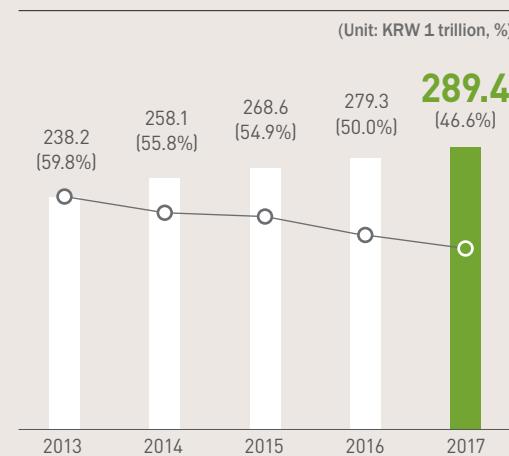
|                             | 2017   |        | 2016   |        | 2015   |        |
|-----------------------------|--------|--------|--------|--------|--------|--------|
|                             | Amount | Weight | Amount | Weight | Amount | Weight |
| Total                       | 280.2  | 14.8   | 263.2  | 14.4   | 249.5  | 14.0   |
| Government bonds (KTB)      | 121.1  | 19.6   | 110.2  | 19.1   | 107.3  | 19.6   |
| Municipal bonds             | 2.8    | 12.6   | 2.0    | 9.2    | 1.8    | 7.9    |
| Specific law bonds          | 60.7   | 17.7   | 53.3   | 15.6   | 50.6   | 15.1   |
| Monetary Stabilization Bond | 12.7   | 7.4    | 18.7   | 10.9   | 15.1   | 8.5    |
| Financial bonds             | 37.4   | 9.4    | 32.5   | 8.7    | 27.8   | 7.8    |
| Corporate bonds             | 45.4   | 13.3   | 46.4   | 13.6   | 46.9   | 13.8   |

Note 1) Market bases outstanding issues while the NPS bases par value.

2) The short-term assets are excluded.

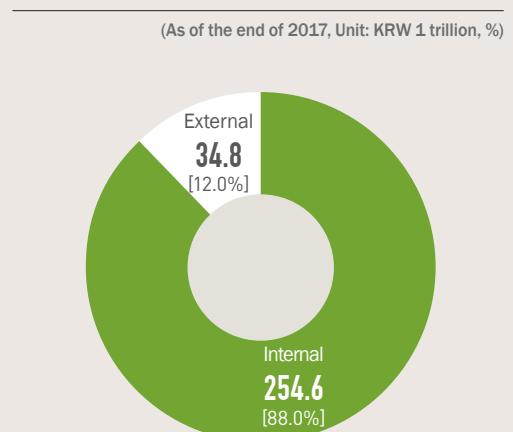
3) The table above categorizes MBS as specific law bond, ABS as corporate bond and the bond issued by lenders as financial bond.

### Weight of Domestic Fixed Income in Total Fund



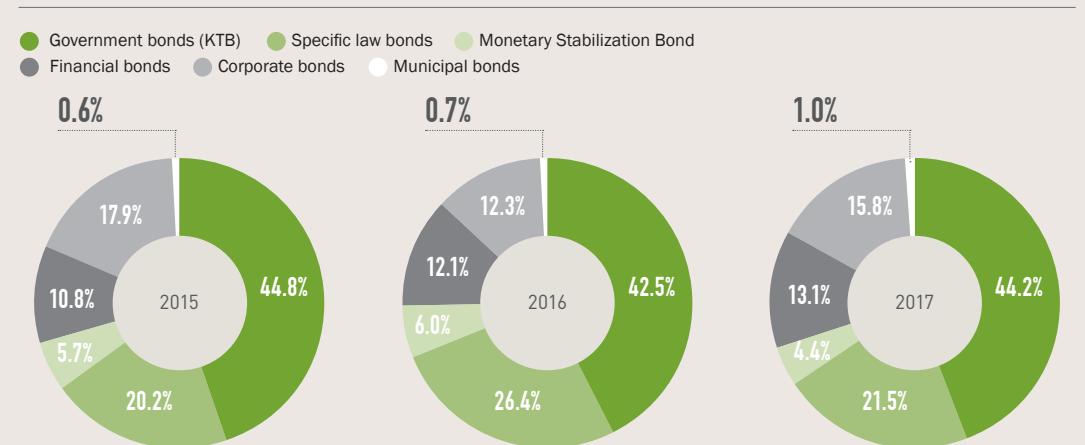
※ The short-term assets are excluded.

### Weight of Domestic Fixed Income by Style



※ The short-term assets are excluded.

### Weight of Domestic Fixed Income by Type



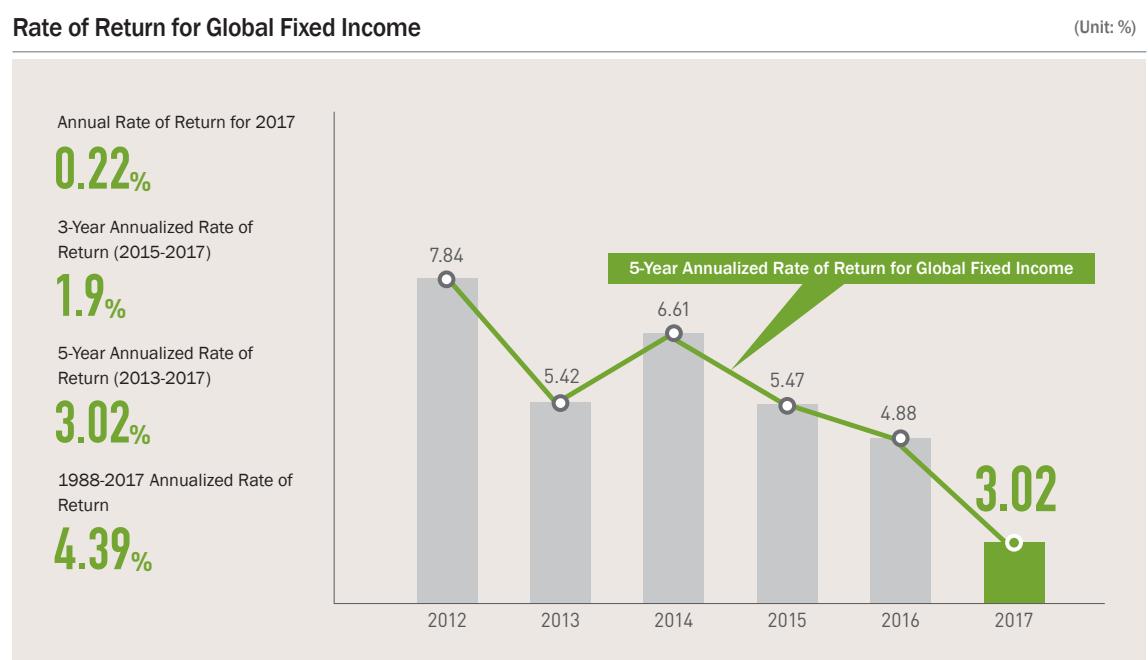
## V-4 GLOBAL FIXED INCOME

As of the end of 2017, the allocation to Global Fixed Income was KRW 23.6 trillion at market value, an increase of KRW 160 billion year-on-year. Short-term assets were included therein. Its weighting of the total assets was reduced by 0.4% to 3.8%. All overseas bonds were actively-invested by internal fund managers in the NPS IM as well as external asset managers. The internal fund managers targeted treasuries, public bonds and good corporate bonds in developed markets while external managers focused on alpha generation through sector allocation and portfolio diversification.

In the protracted global trend of low growth and low interest, the NPS has strived to diversify investment portfolios by region and sector to generate alpha return. In particular, the NPS is now investing more in emerging markets. The NPS has explored new investment opportunities in emerging bond markets through a series of due diligence in China and India in 2016, SEA (Indonesia, Malaysia and Thailand), Eastern Europe (the

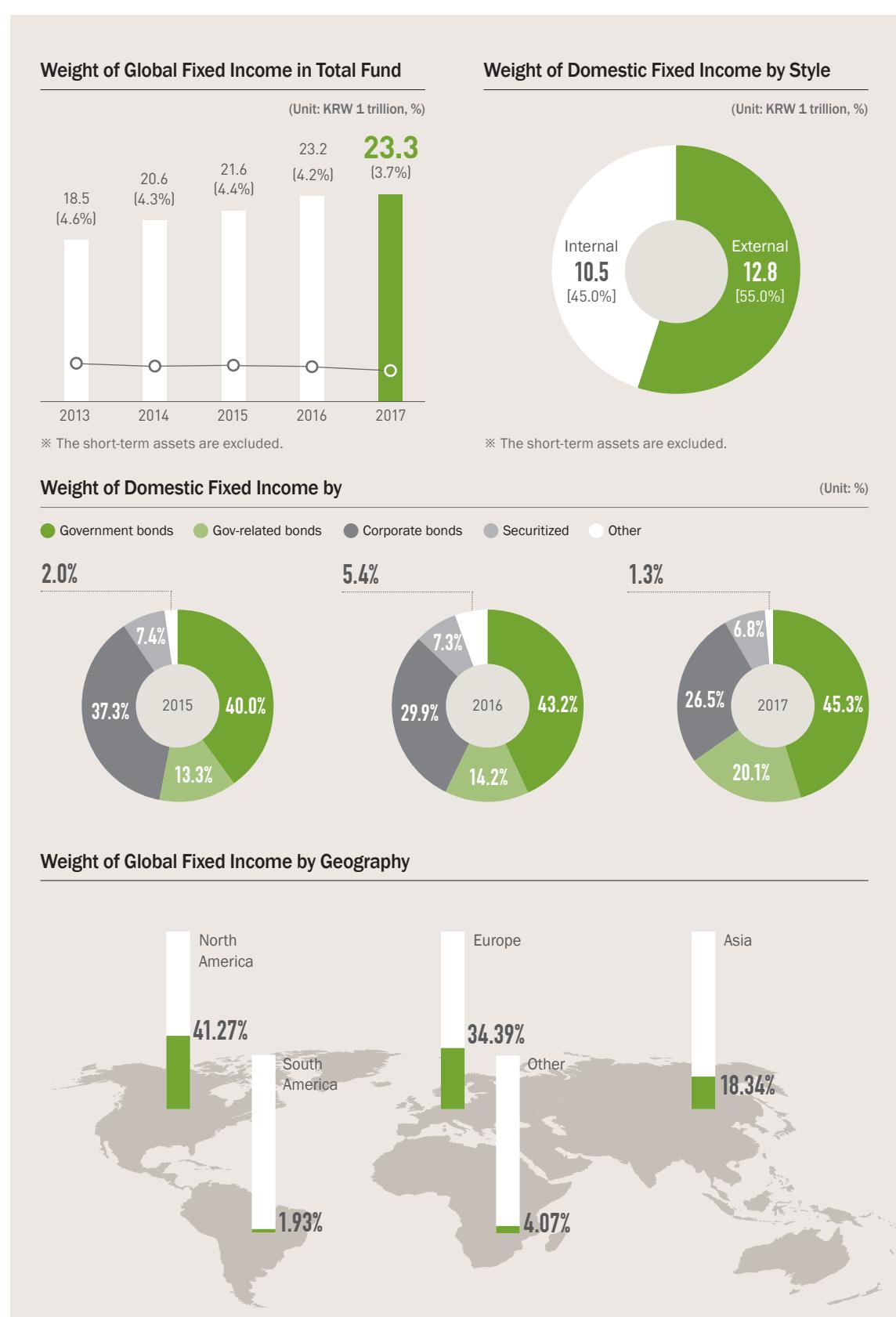
Czech Republic, Poland, Hungary and Austria) in 2017 and planned due diligence in the Middle East in 2018. The NPS has also prepared itself to invest in the Chinese offshore RMB bond market that will be added to global indices in April, 2019. To that end, the NPS has fully cooperated with Chinese regulatory agencies while grasping new investment opportunities in overseas bond markets.

In 2017, Global Fixed Income recorded 0.22% in annual return, with the relative return against the benchmark of 0.18%. Despite the global economic recovery and the Fed's interest rate hike putting upward pressure on global interest rates, prolonged low inflation, delayed tax reform and fiscal stimulus policies in the U.S. have offset the upward pressure and suppressed interest rate volatility that has proven to be lower than last year. In 2017, the rate of return in assets fell by 3.79% year-on-year, the big drop was caused by the strong valuation of the won. The 5-year annualized rate of return amounts to a stable return of 3.02%.



Note 1) the annual rates of return for a single year (2017), 3 years and 5 years are time-weighted while the 1988-2017 annualized rate of return is money-weighted.

2) The short-term assets are excluded.



## V-5 ALTERNATIVE INVESTMENT

For higher return and risk diversification, the NPS has focused on portfolio diversification with the target of increasing overseas allocation and overweighting alternatives while underweighting domestic fixed income. As of the end of 2017, allocation to Alternative Investment was KRW 66.8 trillion, accounting for 10.8% of the total AUM. The rate was increased by 2.1% year-on-year, and is expected to increase continuously to 25% or so by 2022 according to the Mid-term Asset Allocation Plan. The weight of Alternative Investment in the total portfolio declined by 0.6% year-on-year while the capital invested in assets increased by KRW 3.2 trillion. In 2014, the NPS began increasing investment into alternatives abroad than that of domestic alternatives. The weight of overseas alternative assets has since continuously soared and was recorded at 66.6% as of the end of 2017. The allocation to global alternative investment has increased by KRW 2.8 trillion to KRW 44.6 trillion while domestic alternative investment has increased by KRW 300 billion to KRW 22.3 trillion.

The NPS strives to diversify the portfolio for alternative investment by geographic location and investment style. The NPS is now investing in not just North America, Europe and other developed markets, but also emerging markets including Singapore, Australia, Poland, and Italy.

Last year, the NPS was highly active in alternative investment. In regards to real estate, the NPS invested in the US-based prime office project, a multi-family housing and specialty sector. The NPS has also single-handedly committed to fund investing in co-investment programs. The most successful deal was probably that of the sale of the core asset, the Sony Center in Germany for EUR 522 million. In infrastructure, the NPS invested in High Speed 1 in the

U.K., a power distribution project in Australia, etc. In regards to private funds, the NPS expanded their investment portfolio into a range of projects including insurance intermediary in North America, pension insurance providers in Europe, etc. The NPS has also established a USD 1 billion hedge funds portfolio. Overseas hedge funds were newly added to the portfolio in the NPS. In 2017, the NPS committed to a so-called "Green Fund" investing in renewable energy and environmentally-friendly infrastructure.

In addition to quantitative growth, the alternative portfolio was improved qualitatively. The NPS developed the asset allocation strategy from a top-down view based on research on a detailed asset allocation system for alternative investment, which was conducted between April and December 2017. In addition, the NPS established the multi-prong risk monitoring system to detect potential risk factors in alternative investment in advance and improved the efficiency of follow-up activities for post-management.

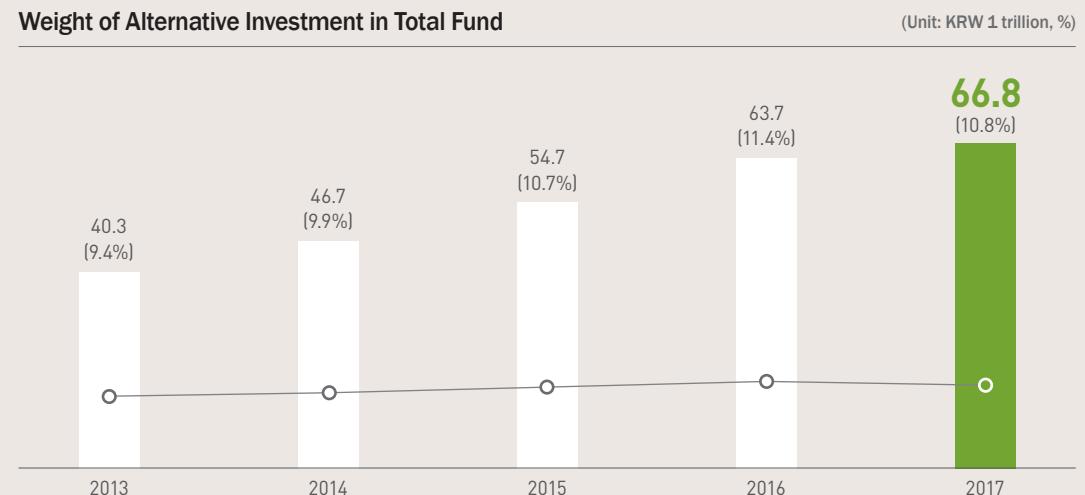
In 2017, Alternative Investments recorded 4.65% in annual return, with Domestic Alternatives recording 6.13% and Global Alternatives recording 3.82%. The total gain and loss on the Alternative Investment was affected by fair valuation, interest and dividends as well as other realized gains and losses. Global Alternatives posted a negative return, as the value of the US dollar to won decreased by 11.3%. The NPS targets to narrow the foreign exchange difference in the benchmark index for overseas alternative assets by reflecting time difference at FX trading and foreign exchange movement in the existing benchmark. The NPS also excludes non-operating factors among performance factors to evaluate the performance of alternative investments more accurately and intelligently, which can act as helpful feedback.

### Rate of Return for Alternative Investment

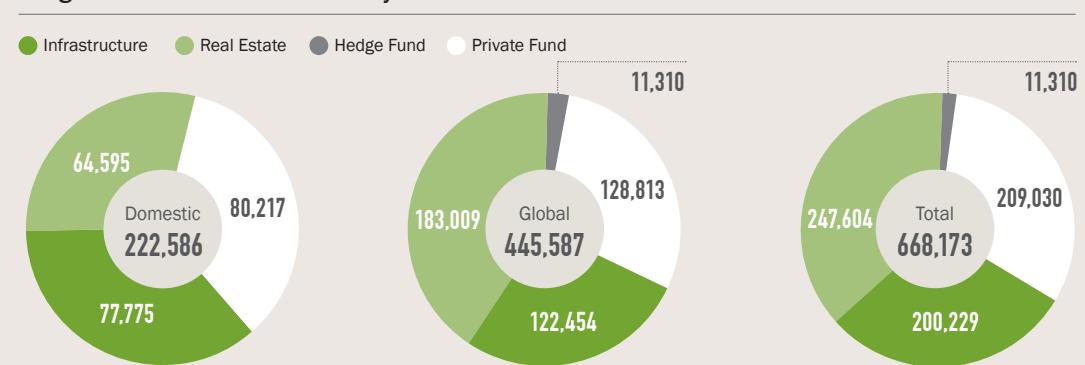


Note 1) The annual rates of return for a single year (2017), 3 years and 5 years are time-weighted while the 1988-2017 annualized rate of return is money-weighted.

### Weight of Alternative Investment in Total Fund



### Weight of Alternative Investment by Sector



### Type of Alternative Investment

#### Real Estate

Real estate investment in the NPS is divided into two types – project and fund. Projects are used to select desirable properties such as office buildings and investments. Funds commit to investing in a wide range of real estate properties through external asset managers at home and abroad. In the NPS, alternative investment requires a thorough inspection of not just expected return for each deal as well as legal or industrial requirements, but also any potential risk posed on the entire alternative investment portfolio and its expected returns before the decision is made.

#### SOC

The NPS invests in social overhead capital (SOC), including roads and railways. In general, SOC projects are divided into state-led projects and private projects. The state-led projects are financed by the government while the private projects are funded by private capital such as pension funds and other institutional investors. For the private investment projects, the right to operate business is supposed to be transferred to the government after a given period of time. For this reason, the NPS designs and manages investments in a way in which principal and returns are stably collected in installments until the transfer deadline.

#### Hedge Fund

For the purpose of risk spread and stable return generation, the NPS currently invests in overseas hedge funds. All invested hedge funds are a fund of fund characterized by medium-risk and medium-return in the diversified portfolio. The intrinsic risk factors, such as operational risk, are also being monitored during the investment process.

## GLOBAL ALTERNATIVE INVESTMENT



# VI

## Appendix

- 2017 Financial Statements
- Key Statistics

## VI-1 2017 FINANCIAL STATEMENTS

### Report of Independent Auditors

\* Based on the audit report originally issued in Korea

To the Minister of Health and Welfare and the Fund Management Committee

We have audited the accompanying financial statements of the National Pension Fund (hereinafter the "NPF"), which comprise the statements of financial positions for the years ending on December 31st, 2017 and 2016, and the related statements of financial operation, statements of changes in net assets for the period there ended, and a summary of significant accounting policies and other explanatory information.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the National Accounting Standards of the Republic of Korea, and for any internal control that management determines as necessary in enabling the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Korean Auditing Standards. Those standards necessitate that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain evidence surrounding the amounts and disclosures within the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risk of material misstatement of the financial statement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of financial statements in order to design audit procedures that are appropriate to the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Opinion

In our opinion, the financial statements well represent, in all material respects, the financial position of the National Pension Fund for the years ending on December 31st, 2017 and 2016, as well as its financial performance and the changes in its net assets for the period then ended in accordance with National Accounting Standards of the Republic of Korea.

Seoul, Republic of Korea  
Daeju Accounting Cooperation  
Chief Executive **Jang-Si Kwon**



February 14<sup>th</sup>, 2018

This report is effective as of February the 14th, 2018, the independent auditor's report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on accompanying financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the audit report aforementioned may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

## STATEMENT OF FINANCIAL POSITION

December 31, 2017  
and 2016  
(Unit: KRW)

|   | 2017                | 2016                |
|---|---------------------|---------------------|
| <b>Assets</b>   |                     |                     |
| <b>I. Current Assets</b>                                  |                     |                     |
| 1. Cash and cash equivalents                              | 159,656,558,788,156 | 135,102,147,481,993 |
| (1) Government fund                                       | 992,850,639,067     | 2,908,664,736,757   |
| 2. Short-term financial instrument                        | 3,109,900,000,000   | 3,189,700,000,000   |
| (1) Bank deposits   | 3,109,900,000,000   | 3,189,700,000,000   |
| 3. Short-term investment securities                       | 152,937,214,530,133 | 126,427,470,173,714 |
| (1) Debt securities                                       | 44,572,048,415,128  | 42,382,860,401,181  |
| a. Government bonds                                       | 12,823,522,994,278  | 12,489,091,416,721  |
| b. Public bonds   | 1,803,066,612,703   | 1,644,658,189,813   |
| c. Municipal bonds  | 155,305,909,248     | 142,425,690,240     |
| d. Special bonds  | 5,399,737,865,333   | 3,140,157,246,181   |
| e. Financial bonds  | 12,024,521,948,777  | 12,258,772,217,532  |
| f. Credit financial bonds                                 | 1,450,300,033,862   | 828,661,381,533     |
| g. Corporate bonds  | 9,760,473,924,367   | 10,884,918,429,564  |
| h. Foreign bonds  | 415,324,268,186     | 459,325,789,486     |
| i. Asset-backed short-term bonds                          | 739,794,858,374     | 534,850,040,111     |
| (2) Equity securities                                     | 108,365,166,115,005 | 84,044,609,772,533  |
| a. Domestic stocks  | 71,324,882,008,373  | 54,820,154,598,940  |
| b. Global stocks  | 37,040,284,106,632  | 28,163,559,916,261  |
| c. Foreign equity securities                              | -                   | 1,060,895,257,332   |
| 4. Other receivables                                      | 2,290,901,085,133   | 2,360,929,928,701   |
| (1) Accrued interest income                               | 2,122,602,914,395   | 2,299,176,471,635   |
| (2) Accrued other income                                  | 49,259,107,115      | 42,555,812,681      |
| (3) Other accounts receivable                             | 119,846,384,085     | 19,197,644,385      |
| Allowance for other accounts receivable                   | (807,320,462)       | -                   |
| 5. Short-term loans                                       | 143,170,851,961     | 135,038,087,753     |
| (1) Short-term loans                                      | 173,914,955,494     | 165,743,655,500     |
| Allowance for short-term loans                            | (30,695,000,000)    | (30,651,812,975)    |
| Allowance for reciprocal service cost of short-term loans | (49,103,533)        | (53,754,772)        |
| 6. Other current assets                                   | 182,491,577,062     | 80,344,555,068      |
| (1) Derivatives   | 182,491,577,062     | 79,560,229,341      |
| (2) Pre-paid withholding tax                              | 30,104,800          | 10,336,637          |
| (3) Advance payment                                       | -                   | 773,989,090         |
| <b>II. Investments</b>                                    |                     |                     |
| 1. Long-term investment securities                        | 461,533,767,442,206 | 423,376,393,557,471 |
| (1) Debt securities                                       | 215,924,342,067,604 | 208,480,149,435,407 |
| a. Government bonds                                       | 102,571,040,029,938 | 95,835,134,361,468  |
| b. Public bonds   | 2,194,687,747,824   | 4,516,339,247,038   |
| c. Municipal bonds  | 2,290,584,426,983   | 1,507,762,346,660   |
| d. Special bonds  | 47,054,406,469,119  | 41,026,803,526,848  |
| e. Financial bonds  | 18,719,170,366,743  | 22,986,829,219,330  |
| f. Lender-issued bonds                                    | 5,550,048,150,314   | 4,627,946,863,065   |
| g. Corporate bonds  | 27,630,317,682,865  | 28,124,858,712,712  |
| h. Foreign bonds  | 9,914,087,193,818   | 9,854,475,158,286   |

|  | 2017                       | 2016                       |
|--|----------------------------|----------------------------|
| (2) Equity securities                                  | 240,666,878,249,497        | 209,637,243,181,794        |
| a. Domestic discretionary contract assets              | 95,030,268,623,750         | 81,558,931,355,434         |
| b. Foreign discretionary contract assets               | 83,883,794,411,169         | 70,871,942,992,103         |
| c. Stocks  | 5,464,354,857,151          | 5,607,372,210,072          |
| d. Equity investments                                  | 8,264,998,449,794          | 7,891,671,898,100          |
| e. Beneficiary certificates                            | 4,173,244,963,046          | 3,861,041,228,390          |
| f. Foreign equity securities                           | 43,850,216,944,587         | 39,846,283,497,695         |
| 2. Long-term loans                                     | 4,909,708,273,747          | 5,231,023,398,808          |
| (1) Long-term loans                                    | 4,980,779,486,058          | 5,305,676,424,901          |
| Allowance for bad debts                                | (71,071,212,311)           | (74,653,026,093)           |
| 3. Other investments                                   | 32,838,851,358             | 27,977,541,462             |
| (1) Derivatives  | 32,838,851,358             | 27,977,541,462             |
| <b>III. Other non-current assets</b>                   | <b>654,034,260,520</b>     | <b>666,487,451,400</b>     |
| 1. Other non-current assets                            | 654,034,260,520            | 666,487,451,400            |
| (1) Other assets                                       | 654,034,260,520            | 666,487,451,400            |
| a. General business accounting assets                  | 514,307,182,098            | 531,651,019,329            |
| b. Welfare business accounting assets                  | 139,727,078,422            | 134,836,432,071            |
| <b>Total assets</b>                                    | <b>621,844,360,490,882</b> | <b>559,145,028,490,864</b> |
| <b>Liabilities</b>                                     |                            |                            |
| <b>I. Current liabilities</b>                          | <b>148,172,447,091</b>     | <b>808,383,443,857</b>     |
| 1. Other current liabilities                           | 148,172,447,091            | 808,383,443,857            |
| (1) Derivatives  | 49,059,370,611             | 688,681,621,200            |
| (2) Accounts payable                                   | 95,285,078,513             | 116,139,766,856            |
| (3) Accounts expenses                                  | 1,627,493,040              | 1,361,550,874              |
| (4) Other deposits received                            | 2,200,504,927              | 2,200,504,927              |
| <b>II. Other non-current liabilities</b>               | <b>35,085,324,300</b>      | <b>37,532,581,940</b>      |
| 1. Other non-current liabilities                       | 35,085,324,300             | 37,532,581,940             |
| (1) Derivatives  | -                          | 1,151,862,440              |
| (2) Other liabilities                                  | 35,085,324,300             | 36,380,719,500             |
| a. Lease deposit                                       | 35,085,324,300             | 36,380,719,500             |
| <b>Total liabilities</b>                               | <b>183,257,771,391</b>     | <b>845,916,025,797</b>     |
| <b>Net Asset</b>                                       |                            |                            |
| <b>I. Basic net assets</b>                             | <b>335,261,900</b>         | <b>335,261,900</b>         |
| <b>II. Reserve fund and surplus</b>                    | <b>527,497,277,004,937</b> | <b>489,369,877,159,892</b> |
| 1. Reserve for national pension benefits               | 327,995,592,618,526        | 305,294,557,690,416        |
| 2. Surplus   | 199,501,684,386,411        | 184,075,319,469,476        |
| <b>III. Net asset adjustments</b>                      | <b>94,163,490,452,654</b>  | <b>68,928,900,043,275</b>  |
| 1. Accumulated gain on investment securities valuation | 94,198,622,062,176         | 68,958,542,062,523         |
| 2. Accumulated loss on derivative valuation            | -                          | -                          |
| 3. Other changes in net assets                         | (35,131,609,522)           | (29,642,019,248)           |
| <b>Total net assets</b>                                | <b>621,661,102,719,491</b> | <b>558,299,112,465,067</b> |
| <b>Total liabilities and net assets</b>                | <b>621,844,360,490,882</b> | <b>559,145,028,490,864</b> |

## STATEMENT OF FINANCIAL OPERATION

December 31, 2017  
and 2016  
(Unit: KRW)

|   | 2017               |                      |                      | 2016               |                      |                      |
|---|--------------------|----------------------|----------------------|--------------------|----------------------|----------------------|
|   | Total Cost         | Income               | Net Cost             | Total Cost         | Income               | Net Cost             |
| <b>I. Net program cost</b>                                  | 42,311,640,453,464 | (41,813,193,206,173) | 498,447,247,291      | 39,524,495,406,180 | (39,062,238,067,331) | 462,257,338,849      |
| 1. Program (A): Pension Service                             | 42,265,975,381,151 | (41,792,777,312,120) | 473,198,069,031      | 39,481,589,029,082 | (39,043,942,633,275) | 437,646,395,807      |
| 2. Program (B): Buildings and Welfare                       | 45,665,072,313     | (20,415,894,053)     | 25,249,178,260       | 42,906,377,098     | (18,295,434,056)     | 24,610,943,042       |
| <b>II. Administrative expenses</b>                          |                    |                      | 59,399,609,359       |                    |                      | 56,748,718,039       |
| <b>III. Non-allocated expenses</b>                          |                    |                      | 3,319,977,316,866    |                    |                      | 6,294,459,080,280    |
| 1. Fees   |                    |                      | 7,897,493,932        |                    |                      | 5,200,623,977        |
| 2. Bad debt expenses  |                    |                      | 846,985,462          |                    |                      | 68,407,336,601       |
| 3. Loss on valuation  |                    |                      | 51,727,602,177       |                    |                      | 693,461,161,287      |
| (1) Loss on derivatives valuation                           |                    |                      | 49,311,460,581       |                    |                      | 693,245,036,717      |
| (2) Loss on foreign currency translation                    |                    |                      | 2,416,141,596        |                    |                      | 216,124,570          |
| 4. Loss on disposition of assets                            |                    |                      | 983,166,763,557      |                    |                      | 1,015,492,124,890    |
| (1) Loss on disposition of short-term investment securities |                    |                      | 535,370,917,860      |                    |                      | 835,307,481,940      |
| (2) Loss on disposition of long-term investment securities  |                    |                      | 447,795,845,697      |                    |                      | 180,184,642,950      |
| 5. Assets Impairment losses                                 |                    |                      | 225,000,000,000      |                    |                      | 2,056,211,801        |
| 6. Tax and dues   |                    |                      | 127,115,402          |                    |                      | 366,453,752          |
| (1) Total taxes   |                    |                      | 127,115,402          |                    |                      | 366,453,752          |
| 7. Other expenses   |                    |                      | 2,051,211,356,336    |                    |                      | 4,509,475,167,772    |
| (1) Loss on foreign currency conversion                     |                    |                      | 630,811,922,763      |                    |                      | 863,957,871,351      |
| (2) Loss on derivatives transaction                         |                    |                      | 1,363,629,544,263    |                    |                      | 3,596,205,612,568    |
| (3) Miscellaneous   |                    |                      | 56,769,889,310       |                    |                      | 49,311,684,053       |
| <b>IV. Non-allocated revenue</b>                            |                    |                      | 19,294,073,090,451   |                    |                      | 18,974,116,245,598   |
| 1. Interest income  |                    |                      | 7,329,865,384,914    |                    |                      | 7,859,540,879,772    |
| (1) Interest income from financial instrument               |                    |                      | 96,766,841,449       |                    |                      | 58,773,184,494       |
| (2) Interest income from bonds                              |                    |                      | 6,764,709,896,786    |                    |                      | 7,317,123,139,808    |
| (3) Interest income from loans                              |                    |                      | 453,556,112,435      |                    |                      | 469,984,258,118      |
| (4) Other interest income                                   |                    |                      | 14,832,534,244       |                    |                      | 13,660,297,352       |
| 2. Gain on valuation  |                    |                      | 188,766,215,779      |                    |                      | 89,104,218,107       |
| (1) Gain on derivatives valuation                           |                    |                      | 188,766,092,637      |                    |                      | 87,007,481,425       |
| (2) Gain on foreign currency valuation                      |                    |                      | 123,142              |                    |                      | 2,096,734,682        |
| 3. Gain on disposition of assets                            |                    |                      | 4,318,538,924,966    |                    |                      | 3,142,795,320,109    |
| (1) Gain on disposition of short-term investment securities |                    |                      | 1,556,725,414,224    |                    |                      | 1,067,020,592,927    |
| (2) Gain on disposition of long-term                        |                    |                      | 2,761,813,510,742    |                    |                      | 2,075,774,727,182    |
| 4. Other income   |                    |                      | 7,456,902,564,792    |                    |                      | 7,882,675,827,610    |
| (1) Dividends   |                    |                      | 3,883,722,757,277    |                    |                      | 3,149,461,399,108    |
| (2) Gain on foreign currency conversion                     |                    |                      | 529,125,084,391      |                    |                      | 900,014,904,347      |
| (3) Gain on foreign currency conversion                     |                    |                      | 2,991,469,105,644    |                    |                      | 3,783,190,697,785    |
| (4) Reversal of allowance for doubtful accounts             |                    |                      | 3,578,291,757        |                    |                      | 4,385,099,963        |
| (5) Miscellaneous   |                    |                      | 49,007,325,723       |                    |                      | 45,623,726,407       |
| <b>V. Net operating cost (I + II + III - IV)</b>            |                    |                      | (15,416,248,916,935) |                    |                      | (12,160,651,108,430) |
| <b>VI. Non-exchange revenue</b>                             |                    |                      | 10,116,000,000       |                    |                      | 10,045,000,000       |
| 1. Other finances and transfer                              |                    |                      | 10,116,000,000       |                    |                      | 10,045,000,000       |
| <b>VII. Net operating results (V - VI)</b>                  |                    |                      | (15,426,364,916,935) |                    |                      | (12,170,696,108,430) |

## STATEMENT OF CHANGES IN NET ASSETS

For the years ended December 31,  
2017 and 2016  
(Unit: KRW)

|   | Basic Net Asset | Reserve fund and surplus | Decrease(increase) in net assets | Total                |
|---|-----------------|--------------------------|----------------------------------|----------------------|
| <b>2016</b>   |                 |                          |                                  |                      |
| <b>I. Net assets at January 1, 2016</b>                   | 335,261,900     | 455,231,468,069,672      | 57,092,315,233,259               | 512,324,118,564,831  |
| 1. Reported amount  | 335,261,900     | 455,231,468,069,672      | 57,092,315,233,259               | 512,324,118,564,831  |
| <b>II. Operating results</b>                              | -               | (12,170,696,108,430)     | -                                | (12,170,696,108,430) |
| <b>III. Adjustments</b>                                   | -               | 21,967,712,981,790       | 11,836,584,810,016               | 33,804,297,791,806   |
| 1. Gain on investment securities valuation                | -               | 11,877,244,930,481       | 11,877,244,930,481               |                      |
| 2. Gain on derivatives valuation                          | -               | [12,068,732,357]         | [12,068,732,357]                 |                      |
| 3. Other increase in net assets                           | -               | 21,967,712,981,790       | (28,591,388,108)                 | 21,939,121,593,682   |
| <b>IV. Net assets at December 31, 2016 (I - II + III)</b> | 335,261,900     | 489,369,877,159,892      | 68,928,900,043,275               | 558,299,112,465,067  |
| <b>2017</b>   |                 |                          |                                  |                      |
| <b>I. Net assets at January 1, 2017</b>                   | 335,261,900     | 489,369,877,159,892      | 68,928,900,043,275               | 558,299,112,465,067  |
| 1. Reported amount  | 335,261,900     | 489,369,877,159,892      | 68,928,900,043,275               | 558,299,112,465,067  |
| <b>II. Operating results</b>                              | -               | (15,426,364,916,935)     | -                                | (15,426,364,916,935) |
| <b>III. Adjustments</b>                                   | -               | 22,701,034,928,110       | 25,234,590,409,379               | 47,935,625,337,489   |
| 1. Gain on investment securities valuation                | -               | -                        | 25,240,079,999,653               | 25,240,079,999,653   |
| 2. Gain on derivatives valuation                          | -               | -                        | -                                | -                    |
| 3. Other increase in net assets                           | -               | 22,701,034,928,110       | [5,489,590,274]                  | 22,695,545,337,836   |
| <b>IV. Net assets at December 31, 2017 (I - II + III)</b> | 335,261,900     | 527,497,277,004,937      | 94,163,490,452,654               | 621,661,102,719,491  |

## SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The National Pension Fund has adopted National Accounting Standards abiding by the Article 11, Paragraph 1 of the National Accounting Act, effective from 2009, and detailed accounting standards approved by the National Accounting Act Business Accounting Deliberation Council (BADC) in the preparation of its financial statements.

The significant accounting policies adopted by the NPF to prepare its financial statements are as follows:

### (1) Pension Contributions and Disbursements

Pension contributions are recognized as revenue that is based on the amount deposited into the National Pension Fund Account in the Bank of Korea as of the balanced sheet date. The fund is transferred out as a Pension Benefit Transfer-Out fund to a general business accounting fund for payment of pension benefits. The difference between pension contributions and pension benefit transfers is accrued as an expense item in the Statements of Financial Operation and is reflected as net assets in the Statements of Financial Positions.

For the period from the introduction of the National Pension Scheme which was January 1<sup>st</sup>, 1988 to December 31<sup>st</sup>, 2017, the total billed pension contributions were KRW 495,076,992 million. Of these contributions, KRW 484,242,949 million was collected and KRW 10,834,043 million (2.2%) was not collected. The uncollected amount was not recognized as revenue. The accumulated billed pension contributions for workplace based insured persons stands at KRW 423,693,924 million while the accumulated uncollected amount stands at KRW 5,212,339 million (1.2%). The accumulated billed pension contributions for individually regional based insured persons stands at KRW 71,383,068 million while the accumulated uncollected amount stands at KRW 5,621,704 million (7.9%). If the uncollected amount had been recognized as receivable on a billing basis, the effect of such recognition should be as follows: The total assets in the statement of financial position (accumulated uncollected amount less the estimated bad debt amount) and net assets (Pension benefit reserve) must be increased. There would have been no effect on the result of financial operation since the total revenue (earnings from uncollected amount in the current period) and gross cost (pension benefit reserve transfer, etc.) in the statements of financial operation would increase by the same amount.

### (2) Cash and Cash Equivalents

Cash and cash equivalents include currencies, substitute securities of currencies including checks issued by others, savings and checking accounts, and securities and financial

instruments with high liquidity that can be converted into cash without serious costs and interest rate risk and of which maturities are three more or less at the time of purchase.

### (3) Short-and Long-Term Financial Instrument

The NPF recognizes time deposits, time installment deposits, structured products owned by the NPF for short-term funding purposes, and products with a maturity of less than one year as short-term financial instrument. The rest of the financial instruments excluding cash and cash equivalents and short-term financial instruments are classified as long-term financial instruments.

### (4) Short-and Long-Term Securities

Based on maturity, securities are categorized into short-term and long-term securities. Short-term securities include debt and equity securities with a maturity of less than one year, or expected to be disposed of within a year as of the balance sheet date. Long-term securities include such securities with a maturity of more than one year, or expected to be disposed of in more than a year as of the balance sheet date.

The historical costs of securities is the sum of market value and incidental expenses at acquisition of the investment securities. In regards to investment securities, the NPF uses the moving average method to calculate the historical costs for equity securities, including stocks and equity investment, while using specific identification of cost method for debt securities. When historical costs of debt securities differ from face value, the effective interest rate method is applied to amortize the difference over the remaining term of the securities.

In regards to both long-term and short-term investment securities, the fair value available to measure, at the balance sheet date, is used to evaluate securities. The difference between the book value and fair value of the securities appears as a reconciliation item in the statement of changes in net assets.

For equity securities, market price on the balance sheet date is considered fair value. For debt securities with unavailable market quotations, an average debt value determined by independent credit rating agencies authorized by debt evaluation agencies is used to

determine fair value.

The fair value of discretionary contract assets is their trading price presented by fund managers. The fair value of non-marketable securities in alternative investments including underlying investment assets is calculated by using the rational evaluation model and estimated value suggested by outside professional evaluation agencies.

For equity securities with unavailable market quotations, fair values are evaluated by external independent valuation companies applying reasonable valuation models and estimates. For foreign equity investments, net asset values provided by external asset management companies are used to estimate fair values. However, loans, BTL/BTO and SOC investments of which investment amounts are less than KRW 10,000 million, and investments in individual companies (projects) and real estate of which the investment period is less than one year as of the balance sheet dates are not subject to such fair value evaluation.

When recoverable value of securities decreases below book value and takes significant time to recover, the NPF recognizes the difference between recoverable and book value as impairment losses in the statement of financial operations.

#### (5) Allowance for Bad Debts

The NPF provides allowance in accordance with estimate amounts of loss from short-term and long-term loans and advance payments based on rational and specific method. Abiding by its guidelines for asset quality classification, the loans are classified into five levels in consideration with the borrowers' credit risk ratings, "normal", "precautionary", "substandard", "doubtful", and "estimated loss". The minimum loan loss rates according to the guidelines for loans range from 0.5% (0.2% for loans guaranteed by Korean government, local government or government invested organizations) for normal, 2% for precautionary, 20% for substandard, 50% for doubtful and 100% for estimated loss.

#### (6) Derivatives

The NPF evaluates rights and responsibilities according to contracts for derivative instruments and sums them as assets and liabilities in the financial statements. The gain/loss created by the contracts reflects as a part of net operating cost in the statement of financial operations when they occur. The derivative instrument designated as hedging the exposure to variability in expected future cash flow of an asset or a liability is attributable to gain/loss on valuation of derivatives in the statements of changes in net assets.

#### (7) Estimated and Contingent Liabilities

If a present obligation (legal or constructive) has arisen as a result of a past event; settlement is expected to result in an outflow of resources (payment); and the payment for

the current fiscal year can be measured reliably, the NPF recognizes this obligation as estimated liability. If there is a possible obligation whose existence is confirmed only by the occurrence or non-occurrence of one or more uncertain future events; there is a low possibility of an outflow of resources despite a present obligation made as a result of a past event or transaction; or the payment for the current fiscal year cannot be measured reliably, this obligation is prescribed as contingent liability in the footnote.

#### (8) Foreign Currency Translation

The NPF converts foreign currency-denominated monetary assets and liabilities into Korean won based on basic rates announced by the Seoul Money Brokerage Service at balance sheet dates. Foreign currency translation gains/loss is reflected in the calculation of net operating cost in the statement of financial operations. For foreign currency-denominated investment securities, the difference between fair value, which is the amount in KRW translated at the reporting period, and book value is presented as a part of adjustments in the statement of changes in net assets. The Korean won equivalent of assets and liabilities denominated in foreign currencies are translated in these financial statements based on the basic rate of KRW 1,071.4 to USD 1.00 on December 31<sup>st</sup>, 2017, as announced by the Seoul Money Brokerage Service.

#### (9) Translations with General Business Accounting and Welfare Business Accounting

The NPF appropriates the amount transferred to purchase assets for general businesses and consignment businesses as "general businesses accounting assets" in the statement of financial position, while the amount transferred to operate loan businesses and welfare businesses as "welfare business accounting assets". In addition, the amount transferred to general accounting to pay pension benefits and expenditure for operation of the NPF is all reflected on the statement of financial operation as Pension Benefits and management and operating expenses.

## VI-2 KEY STATISTICS

(Unit: KRW 100 million)

|                           | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total Fund (market value) | 3,488,677 | 3,919,677 | 4,269,545 | 4,698,229 | 5,123,241 | 5,582,991 | 6,216,422 |
| Financial Sector          | 3,484,681 | 3,915,683 | 4,264,473 | 4,692,534 | 5,116,983 | 5,576,819 | 6,210,182 |
| Domestic Equity           | 621,395   | 733,165   | 839,381   | 839,296   | 948,965   | 1,023,591 | 1,315,200 |
| Domestic Fixed Income     | 2,235,091 | 2,343,946 | 2,381,625 | 2,580,721 | 2,686,368 | 2,793,444 | 2,894,009 |
| Global Equity             | 197,205   | 313,202   | 443,862   | 566,113   | 699,357   | 856,582   | 1,082,794 |
| Global Fixed Income       | 145,628   | 180,758   | 184,562   | 205,866   | 215,932   | 232,154   | 232,740   |
| Alternative Investment    | 271,940   | 329,930   | 403,227   | 466,550   | 546,585   | 636,668   | 668,173   |
| Short-term Assets         | 13,422    | 14,681    | 11,817    | 33,988    | 19,776    | 34,380    | 17,273    |
| Welfare Sector            | 1,081     | 1,271     | 1,249     | 1,264     | 1,362     | 1,396     | 1,433     |
| Other Sector              | 2,915     | 2,723     | 3,823     | 4,431     | 4,896     | 4,777     | 4,806     |

|                             | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total Fund (purchase value) | 3,225,941 | 3,554,511 | 3,879,398 | 4,208,259 | 4,540,901 | 4,889,498 | 5,271,788 |
| Revenue                     | 3,930,539 | 4,379,790 | 4,841,087 | 5,313,252 | 5,803,439 | 6,328,563 | 6,907,928 |
| Contributions               | 2,708,842 | 3,010,119 | 3,329,186 | 3,669,961 | 4,034,222 | 4,424,580 | 4,842,430 |
| Investment income           | 1,215,422 | 1,363,294 | 1,505,405 | 1,636,674 | 1,762,493 | 1,897,146 | 2,058,573 |
| Government subsidies, etc.  | 6,275     | 6,378     | 6,496     | 6,618     | 6,724     | 6,837     | 6,925     |

|                | 2011    | 2012    | 2013    | 2014      | 2015      | 2016      | 2017      |
|----------------|---------|---------|---------|-----------|-----------|-----------|-----------|
| Expense        | 704,598 | 825,280 | 961,689 | 1,104,993 | 1,262,538 | 1,439,065 | 1,636,140 |
| Benefits       | 664,679 | 780,186 | 911,313 | 1,049,113 | 1,200,953 | 1,371,635 | 1,562,474 |
| Other expenses | 39,919  | 45,094  | 50,376  | 55,880    | 61,585    | 67,430    | 73,666    |

|                                   | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       |
|-----------------------------------|------------|------------|------------|------------|------------|------------|------------|
| The Insured                       | 19,885,911 | 20,329,060 | 20,744,780 | 21,125,135 | 21,568,354 | 21,832,524 | 21,824,172 |
| Workplace-based insured persons   | 10,976,501 | 11,464,198 | 11,935,759 | 12,309,856 | 12,805,852 | 13,192,436 | 13,459,240 |
| Individually insured persons      | 8,675,430  | 8,568,396  | 8,514,434  | 8,444,710  | 8,302,809  | 8,060,199  | 7,691,917  |
| Voluntarily insured persons, etc. | 233,980    | 296,466    | 294,587    | 370,569    | 459,693    | 579,889    | 673,015    |

|                    | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      |
|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Beneficiaries      | 3,166,983 | 3,499,522 | 3,633,770 | 3,748,130 | 4,028,671 | 4,362,254 | 4,692,847 |
| Old-age pension    | 2,489,614 | 2,748,455 | 2,840,660 | 2,947,422 | 3,151,349 | 3,412,350 | 3,706,516 |
| Disability pension | 75,895    | 75,934    | 75,041    | 75,387    | 75,688    | 75,497    | 75,486    |
| Survivor pension   | 449,735   | 485,822   | 524,992   | 563,996   | 605,151   | 647,445   | 693,141   |
| Lump-sum allowance | 151,739   | 189,311   | 193,077   | 161,325   | 196,483   | 226,962   | 217,704   |

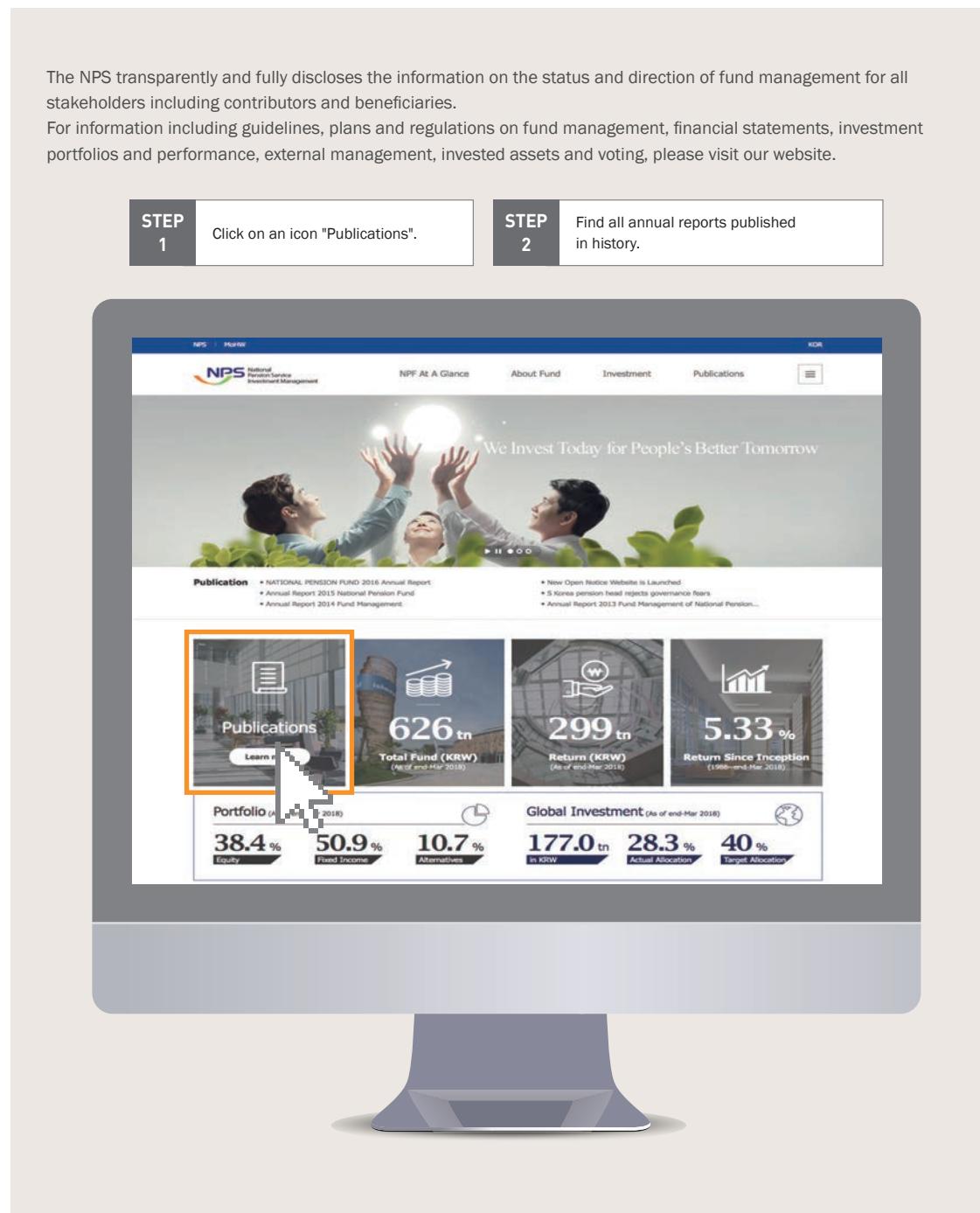
# MEMO

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## GUIDE TO FUND STATUS ON WEBSITE

Go to our website ([fund.nps.or.kr](http://fund.nps.or.kr)) or go to the NPS website ([www.nps.or.kr](http://www.nps.or.kr)) and click the NPSIM section for more information on fund management.

This report was published to help readers understand how the NPS administrates and manages the NPF. There may be small discrepancies in time and omission of explanation, and slight statistical differences in the first or second decimals due to rounding up. This report reflects the estimated statistics for the period ending 2017. The confirmed statistics for the period ending 2017 will be released after the performance evaluation report for the year of 2017 has been approved by the FMC in June, 2018. The financial report for 2017 will be approved by the National Assembly of South Korea within the year. The approved reports will be available on the website of the Ministry of Health and Welfare ([www.mohw.go.kr](http://www.mohw.go.kr)) and our website ([fund.nps.or.kr](http://fund.nps.or.kr)).





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