# Korean New Deal Innovation and Technology in the post-COVID-19 Era



Ministry of Economy and Finance

Prepared for the IDA-Korea Workshop on Innovation and Digital Technology in a Post-Pandemic World, November 5, 2020

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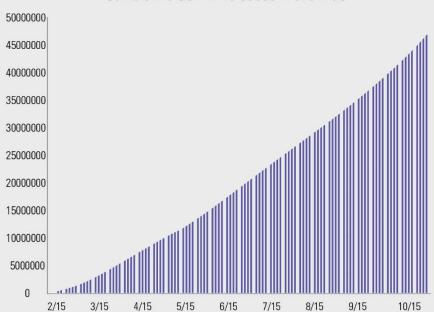
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- 1. COVID-19 Status
- 2. COVID-19 & 3 Policy Priorities
- 3. The Korean New Deal

## **Current COVID-19 Situation**

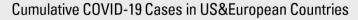


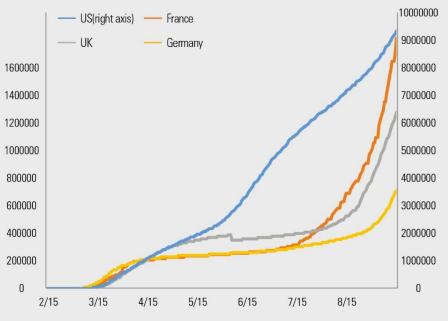
Global COVID-19 Cases Still Rising Quickly



### Cumulative COVID-19 Cases Worldwide

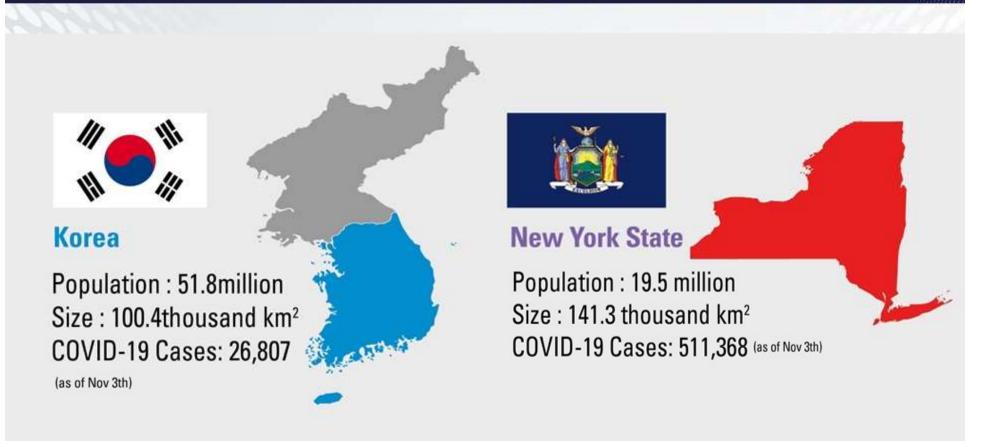
### European Countries Seeing Second Rise in COVID-19 cases





## **Comparison Between Korea and the New York State**

1. COVID-19 Status



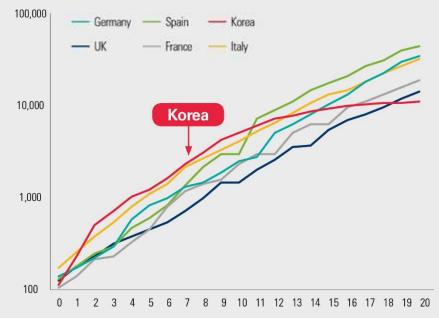
Korea is about 0.7 times the size of the New York State, With a population size about 2.7 times of that of the New York State Korea is densely populated, which makes the country more vulnerable to a contagious disease

## **COVID-19 Situation in the World**



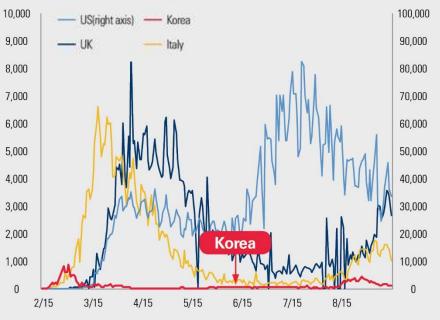
In early March, Korea and European Countries Appeared to be on Similar Paths

Cumulative COVID-19 Cases by Number of Days Since 100th Cases



### Korea Managed to Flatten the COVID-19 Curve

### Daily COVID-19 Cases



## Main Features of the Korean Response : $3T+\alpha$

## Flattening the curve on COVID-19: South Korea's measures in tackling the initial outbreak of coronavirus

(American Journal of Epidemiology, Oct 27th)

### American Journal of Epidemiology

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ACCEPTED MANUSCRIPT

Flattening the curve on COVID-19 : South Korea's measures in tackling initial outbreak of coronavirus

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Published: 27 October 20. 66 Cite Split View PDF

#### Abstract

The spread of coronavirus disease ( crisis around the world, with South experienced a surge of COVID-19 ca flatten the COVID-19 curve in only 2 measures that restrict the freedom South Korea achieved as such, this s of the Korean government's COVIDdrafting the 'Tacking COVID-19: Ko past South Korean government exp Syndrome of 2015. This paper finds responses against COVID-19. First, 'one team' efficiently to cooperate approach is needed to combat the s

navirus		a constant	
Testing	Trac	ing	Treating
<ul> <li>Fast-track approval for kits Maximum daily testing capacity to 15,000</li> <li>A variety of methods Drive-thru, Walk-thru, Screening stations, etc.</li> </ul>	<ul> <li>Ouick identification of the transmission route</li> <li>Epidemiological Investigation Support System</li> <li>Aiming to ramp up contact tracing capacity</li> <li>Ouice of the tracing capacity</li> <li>Ouice of the tracing of the tracendom of the tracing of the tracing of the tracing of the t</li></ul>		<ul> <li>System based on severity Accommodating classified patients at the corresponding facilities</li> <li>Separating respiratory and non-respiratory patients</li> </ul>
Governance		Inno	ovative Technologies
© Central Disaster and Safety Countermeasures Headquarters Government-wide responses to COVID-19 Chaired by Prime Minister, comprising relevant ministries of the central government as well as the 17 provinces and major cities		☞ Implementation of innovative technologies in all stages of testing, tracing and treating	
		Al, mobile applications, vaccine development Straining the implementation of "social distancing policies" without a local days	

Skorea Disease Control and Prevention Agency(KDCA) A status upgrade to an independent government agency

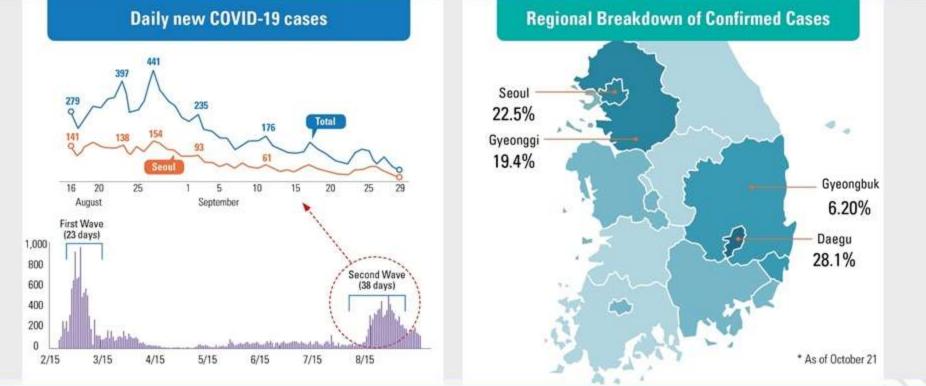
### ologies

- technologies in all treating elopment
- n of "social distancing policies" without a lockdown

# "Sleeping with the Enemy"

### 1. COVID-19 Status





Containing COVID-19 at a manageable level without a lockdown

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## "Sleeping with the Enemy"

## Tasks to be solved

### **①Contract tracing and** the protection of privacy

 Finding suitable balance between the collection of personal information and the protection of the privacy of an infected individual

### ②Reopening of the economy and the loosening of social distancing measures

- Strong lockdown and social distancing measures have been successful in flattening the COVID-19 curve, but significant economic, social and political consequences have followed
- When and how can we reopen our economies and get back to normal life?

# ③ Preparing for the second wave of COVID-19

 Countries including Korea experienced a resurgence in COVID-19 cases after the loosening of social distancing





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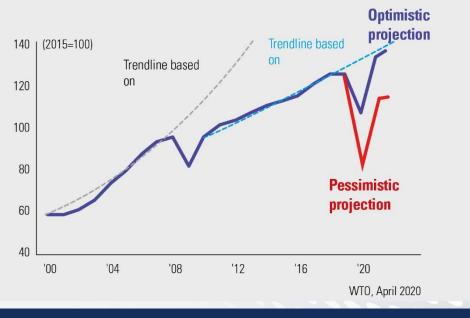
## **Global economy**



**Global economic growth rate** 



World merchandise trade volume



Worst economic downturn since the Great Depression in the 1930s

# THE WALL STREET JOURNAL.

ECONOMY | ASIA ECONOMY

**Coronavirus Pandemic Hits South Korea's Export-Reliant Economy** 

Country slipped into recession as it notched its worst performance since the Asian financial crisis

South Korea fell into a recession in the second quarter as the <u>coronavirus</u> <u>pandemic</u> took a heavy toll on the export-reliant country, which recorded its worst performance since 1998 when it was embroiled in the Asian financial crisis.

Gross domestic product shrank 3.3% between April and June from the previous quarter, following a quarter-on-quarter contraction of 1.3% for the months of January to March, Bank of Korea data showed Thursday.

The latest reading missed the median forecast of a 2.4% sequential fall by economists polled by The Wall Street Journal, reflecting the challenges exportreliant economies face on the path to recovery as <u>patchy economic reopenings</u> in <u>other parts of the world</u> weigh on a pickup in exports.

"Experts expected the coronavirus to gradually settle down, but the level of slowdown [of the virus' spread] has fallen short of expectations," said Park Yangsu, head of Bank of Korea's economic statistics department.

South Korea's export figures, seen as a bellwether for trade, fell sharply by 16.6% from the previous quarter on weak demand for cars and petrochemicals. Investments in construction and factories swung into contraction during the same period, the data showed.

## **3 Policy Priorities**

2. COVID-19 & 3 Policy Priorities

# **(1) PROTECTING** The Vulnerable and Small Businesses



# **2PRESERVING** Economic Resilience

# ③ **PREPARING** For the Post-COVID-19



# **①PROTECTING** the Vulnerable and Small Businesses

2. COVID-19 & 3 Policy Priorities

### **Measures for the Employment**

- Expanding employment retention subsidies
- Stabilizing the livelihood of workers outside the employment insurance
- More support for job seekers including unemployment allowance, job seeking
- Creating 1.54 million jobs in the public sector

### Measures for the Small Businesses & SMEs

- Financial Support Program
- Super-low interest loans, emergency management funds
- Policy financial institutions to extend existing loans & collateral
- Government bears 50% of rent discounts voluntarily by landlords



### **Measures for the Low**

- Emergency relief payments for all Koreans (400,000 won for a single-person household 600,000 won for a two-person household 800,000 won for a three-person household 1 million won for households with 4 or more)
- Expanding the social security contribution reliefs for the low-income group

### **Measures for Financial Stability**

- Bond Market
- Bond Market Stabilization Fund
- Supporting purchase/conversion of the corporate bond
- Securities Market
- Securities Market Stabilization Fund
- Money Market
- SPV to purchase corp bond & CP

# **②PRESERVING Economic Resilience**

### **Fiscal Stimulus**

- Creating domestic demand through pre-payments and pre-purchasing
- Scaling up construction investment by government and public institutions
- Tax relief to induce consumption

### **Promoting Trade**

- Extending deadlines for loans and insurance payments
- Untact export support
- Assisting Korean businessmen enter foreign countries

### **Industry Specific Support**

2. COVID-19 &

**3 Policy Priorities** 

- (Aviation)
  - Emergency loans for LCCs, Exemption/Deferrals
- (Shipping)

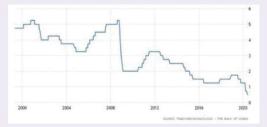
Lowering port fees, Purchasing corporate bonds for small, medium-sized companies

• (Auto)

Applying special tariffs to auto parts Reducing individual consumption tax

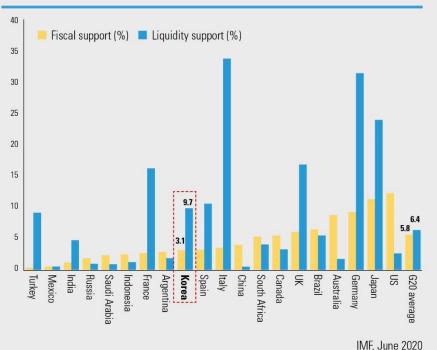
### **Accommodative Monetary Policy**

• Lowering the Base Rate (0.75%  $\rightarrow$  0.50%)



# **②PRESERVING Economic Resilience -** Fiscal Stimulus

### Support measure of 277 trillion won (14.4% of GDP) prepared in response to the COVID-19 crisis



# Fiscal support of 58.1 trillion won (3.1% of GDP) is the 12th largest among G20 countries

### Korea's export recovery on track



Korea has responded to the economic crisis relatively well with measures including fiscal support

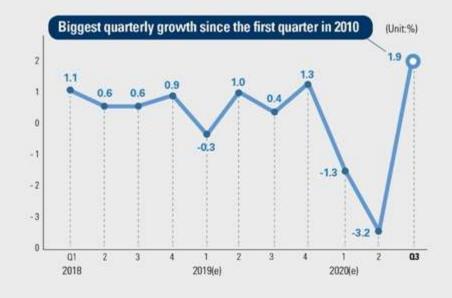
## **②PRESERVING Economic Resilience** - Growth trajectory beginning to normalize

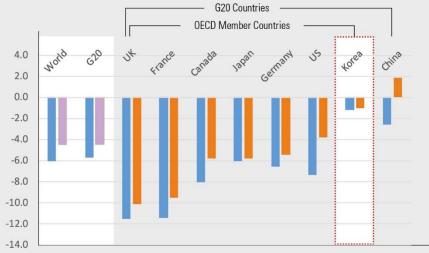
2. COVID-19 & 3 Policy Priorities



### Korea's GDP growth

### Korea's economy shrinks the least among OECD countries post COVID-19





OECD Economic Outlook (Single-Hit) (June 2020)

OECD Interim Report(September 2020)

# **③PREPARING** for the Post-COVID-19 Era

2. COVID-19 & 3 Policy Priorities

## Accelerate transition toward a digital economy

- Rising demand for 'untact' services
- Growing need to invest in digital infrastructure

Green economy

## Highlight the need for climate actions

Long-standing and plentiful warnings on climate change
 Creating new industries and jobs through green investment

Changes in labor market

Digital

economy

## Call for a tighter and stronger employment safety net

- Transition towards a digital and green economy leading to mismatches between jobs and skills

- Intensified job polarization due to decreased demand for low-skilled workers

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## Main policies of the Korean New Deal

3. Korean New Deal



## **Digital New Deal** Promote digital innovation and dynamics in the economy

Industrial & technological integration & innovation

## **Green New Deal**

Accelerate transition towards low-carbon and eco-friendly economy

Increase investment in human resources to create new jobs

Increase investment in human resources to create new jobs

## **Stronger Safety Net**

Strengthen basis for a people-centered and inclusive country

## **Fiscal Investment**

Create new markets & demand

## Institutional Improvement

Accelerate innovation and investment in the private sector

## WBG Korea Office

## Technology and Innovation

- Create new regional Technology and Innovation(T&I) Lab
- Support EAP regional disruptive technology agenda

## **WBG Korea Office**

Global Hub for Innovation and Technology

## Green Innovation

• Expand the Environment, Energy and Urban programs Support Korea Green Growth Trust Fund(KGGTF)







# **Digital New Deal**

Stronger Integration of DNA (data, network and AI) Throughout the Economy
 Digitalization of Infrastructures (Social Overhead Capital)
 Digitalization of Education Infrastructures
 Fostering the 'Untact' Industry

# • Stronger integration of DNA (data, network and AI) throughout the economy

### Collect, disclose and utilize data

- Disclose 142,000 public data
- Introduce vouchers for data purchasing, processing and AI-learning
- Collect 1,300 types of data for AI-learning



### Make a smart government

- Establish 5G in phases at all government complexes
- Adopt cloud computing of public information system



### Expand the integration of 5G and Al into industries

3. Korean New Deal

- Produce 195 immersive contents
- Build 12,000 smart factories
- Support 1,000 startup businesses providing untact services



### **Advance cyber security**

- Provide installation support on security programs to 6,650 SMEs
- Develop 100 promising businesses for AI security



# **O** Digitalization of Infrastructures(Social Overhead Capital)

# Build a smart management system

- Adopt Cooperative-Intelligent Transportation System (C-ITS) on major roads
- Set up real-time remote controlling systems for rivers, reservoirs and dams

# Add digital innovation to urban spaces and industrial complexes

- Set up comprehensive city management platforms in 108 smart cities
- Establish comprehensive control centers in 10 industrial complexes

# Build a smart logistics and distribution system

- Establish 11 smart distribution centers shared by SMEs
- Introduce a certification system on smart distribution centers



## **O** Digitalization of education infrastructures

# Create technology-based education infrastucture

- Provide Wi-Fi to all elementary, middle and high schools
- Replace 200,000 old faculty computers
- Provide 240,000 tablet PCs to 1,200 schools



### Strengthen the online education of universities and job training institutions

- Replace old severs and network facilities at 39 national universities
- Develop 2,045 lectures on the 4th Industrial Revolution
- Develop 3,040 e-learning and virtual learning programs





## **O** Fostering the 'untact' industry

# Build smart healthcare infrastructures

- Build 18 smart hospitals
- Provide care service using IoT and AI for 120,000 vulnerable persons

# Promote remote working in SMEs

- Support 160,000 SMEs establish remote working system
- Establish 1,562 videoconferencing rooms for SMEs

### Support online activities of microbusinesses

- Provide online exhibition and commerce space to 320,000 microbusinesses
- Build 100,000 smart stores and 10,000 smart workshops









# **Green New Deal**

Green Transition of Infrastructures
Low-carbon and Decentralized Energy Supply
Innovation in the Green Industry



## • Green transition of infrastructures

# Turn public facilities into zero-energy buildings

- Add renewable energy equipment to 225,000 public rental housings
- Enhance energy efficiency of 2,890 school buildings



# Restore the terrestrial, marine and urban ecosystems

- Provide customized environmental solutions to 25 regions
- Create 630 ha of forest as a barrier against fine dust
- Restore the ecosystems in 16 national parks, and 4.5 km<sup>2</sup> of tidelands



### Enhance the management system for clean and safe water

- Make 48 inter-regional and 161 local water supply systems smart
- Remodel 12 water purification plants for inter-regional supply





## O Low-carbon and decentralized energy supply

### Build a smart grid for more efficient energy management

- Provide smart meters to 5 million apartments
- Establish eco-friendly generation system in 42 island regions

### Promote renewable energy use and support a fair transition

- Find sites for large-scale offshore wind farms
- Support regions expecting difficulties from reduced use of coal power

# Expand the supply of electric and hydrogen vehicles

- Provide 1.13 million EVs and 200,000 hydrogen vehicles
- Support the scrappage of 1,160,000 diesel vehicles









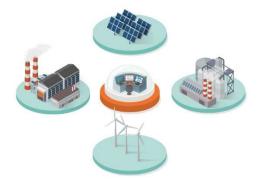
## **O** Innovation in the green industry

# Support businesses in the green industry

- Support 123 SMEs develop green business items
- Create smart energy platforms in 10 industrial complexes
- Set up 100 smart ecological plants and 1,750 clean factories



- Support development and commercialization of GHG-reducing technology
- Introduce a loan of 1.9 trillion won for the green sector







# Stronger Safety Net

# • Prioritize the value for inclusiveness

Protecting against unemployment and disparities

## **Employment and social safety net**

### Build a universal employment safety net

- Expand employment insurance coverage
- Expand coverage of workers' compensation insurance



### Strengthen the social safety net

- Relax the eligibility criteria of the basic livelihood security benefits
- · Introduce pilot projects on invalidity benefits



**Ensure livelihoods and** employment stability

• Provide up to 500,000 won of job search subsidy for 6 months

### Help new employees in the labor market

• Provide subsidy of up to 1,800,000 won for • Provide regular technical training to hiring young employees in IT related fields

### Innovate working environment and industrial safety standards

- prevent industrial accidents
- Improve working condition by eliminating dust and noise







# Protecting against unemployment and disparities

## **Investment in Human Resources**

# Train digital and green talents

- Train 100,000 individuals on AI and software
- Train 20,000 individuals in greenintegrated fields

# Restructure the job-training system to be future-oriented

- Train 180,000 individuals for new technologies
- Provide digitally based training platforms to SMEs and training institutions



# Enhance accessibility to digital infrastructure

- Build an ultrahigh-speed internet network in 1,200 rural villages
- Install 41,000 high-performance Wi-Fi equipment in public places
- Operate 6,000 centers for digital education





# Protecting against unemployment and disparities

## **Action Plans for the Korean New Deal**

### **Government Financing**

• Maximizing its priming effet

### **Instituional Reform**

- Removing the barriers of regulation
- : Operation of the TF for legal/regulatory reforms
- Buidling the foundation for creativity in the private sector



### **Private Sector Investments**

• Using Private capital for a public participatory "Korean New Deal Fund"



### **Regionally Balanced New Deal**

- Spreading the Korean New Deal to regions across the country
- $\rightarrow$  Promoting balanced national growth





# **Thank You**

