The role of digital transformation in reviving South Korea's economy after the "Covid-19" pandemic

KERRACHE Nour Elhouda Rahil
NECHAD Hakim

Scientific review of economic future

Classe B

Décembre 2022, Vol 10 -n°01
Page: 222-242
E-ISSN 2676-2218
P-ISSN 2352-9660

Article disponible en ligne à l'adresse:
****
https://www.asjp.cerist.dz/en/PresentationRevue/583
****

Pour citer cet article :

KERRACHE N E R, NECHAD H ., (2022), « The role of digital transformation in reviving South Korea's economy after the "Covid-19" pandemic», Scientific review of economic future, Vol.10. n°01, p. 222-242.

The role of digital transformation in reviving South Korea's economy after the "Covid-19" pandemic Cities

دور التحول الرقمي في انعاش اقتصاد كوريا الجنوبية بعد الوباء "كوفيد-19"

Kerrache Nour Elhouda Rahil (*)

University Center Nour El Bashir El Baydh, (Algeria)
n.kerrache@cu-elbayadh.dz

Nechad Hakim

University Center Nour El Bashir El Baydh, (Algeria)
hakim.nechad@yahoo.fr

Received: 03/11/2021 Accepted: 25/11/2022

Abstract:

this study aims to highlight the relationship of digital transformation with the recovery of south Korea's economy after the COVID-19 pandemic. In an effort to highlight the country's experience in the face of the epidemic, the most important plans and strategies it has pursued in this regard to the adoption of the new digital deal and the model of the data-based economy.

The results showed that digital transformation played a major role in addressing the repercussions of the crisis through the contribution of the data dam project to the early accounting of the epidemic, in addition to the rise in the country's exports of innovative products, which contributed more to the recovery of the Korean economy, due to the state's capabilities in the field of digital technology and industries.

Key words: Digital Transformation; Digital New Deal; Data-Based Economy Model; South Korea; Covid19.

JEL classification: O33; O38; O41; N15; I10

ملخص

تهدف هذه الدراسة الى تسليط الضوء على علاقة التحول الرقمي مع انعاش اقتصاد كوريا الجنوبية بعد جائحة COVID-19 , في محاولة لإبراز تجربة هذا البلد في مواجهة الوباء، واهم الخطط والاستراتيجيات التي اتبعتها في ذلك في ظل تبني الصفقة الرقمية الجديدة ونموذج الاقتصاد القائم على البيانات.

(*) *Corresponding authors*

اظهرت النتائج ان للتحول الرقمي دور كبير في مواجهة تداعيات الازمة من خلال مساهمة مشروع سد البيانات في حصر الوباء في وقت مبكر، اضافة الى ارتفاع صادرات الدولة من المنتجات المبتكرة التي ساهمت بشكل أكبر في اعادة إنعاش الاقتصاد الكوري وهذا راجع الى قدرات الدولة في مجال التكنولوجيا الرقمية والصناعات.

كلمات مفتاحية: التحول الرقمي، الصفقة الرقمية الجديدة، نموذج الاقتصاد القائم على البيانات، كوريا الجنوبية، كوفيد19.

تصنيفات JEL : I10, N15, O41, O38, O33

INTRODUCTION

In 2020, with the measures imposed by the COVID-19 pandemic around the world, the great depression has made growth indicators in most of the world's economies come in negative numbers, and economists are warning that recovery from the epidemic will not necessarily lead to a recovery of the economy, but that people may suffer for years to come from recession, and at the same time there were different visions to rule it out.

Between these two views, a year and a half after the onset of the emerging COVID-19 pandemic, the global economy in 2021 is expected to experience its strongest recovery after the recession in 80 years. However, that recovery is likely to vary among countries, as large economies appear to be experiencing a strong growth rate while many developing economies will be lagging behind.

South Korea is one of the first countries to suffer from THE CORONA VIRUS, emerging as a global hub for technological innovation, ICT communications and digital infrastructure. The country has some of the highest mobile and broadband penetration rates in the world, and there are already millions of 5G users in a country with a population of only 51.5 million. Since the 1990s, South Korea has always been at the forefront when it comes to adopting technology in categories such as the Internet, mobile phones, games, e-sports and mini-payment transactions. It is in a position to lead again as South Korea leaps into the next generation of Internet-based economic development. The COVID-19 epidemic has led to a greater focus on the country's progress.

South Korea succeeded early in managing the epidemic without relying on forced stone, and kept international borders open during this period, and on 14-07-2020 the government announced a five-year post-epidemic plan. The plan strengthens some of the government's measures to address the epidemic crisis, such as the intensive use of personal data for public and industrial purposes, with many new projects proposed. By comparison, other Asian countries were still consulting on post-pandemic national plans. In the second half of 2020, the Korean economy recovered 3.3% and is the second recovery after China. Based on the above, the following key question can be asked:

What is the role of digital transformation in reviving South Korea's economy after the "Covid 19" epidemic?

Below are the following sub-questions:

- What is the Korean digital deal?
- How did the data-based economy model account for the epidemic?
- What are the drivers of South Korea's economic recovery and its relationship to digital technology?

To answer the main questions, we rely on the following hypotheses:

- Hypothesis 1: South Korea's reliance on the data dam project and early technological tracking has a positive impact on keeping COVID-19 cases low.
- Hypothesis 2: The increase in exports of South Korean electronic products contributed rapidly to the return to growth.
- Hypothesis 3: The plans developed by the Korean government have had a positive impact on the strong recovery of employment during the pandemic.
- Hypothesis 4: South Korea's central bank strategies had a great ability to stimulate monetary policy during the pandemic.

The importance of the study

The importance of the study lies in the central role that governments have in containing the pandemic and addressing its economic consequences, as the pandemic has caused a global health emergency and an economic crisis unmatched by any other crisis in history.

Study objectives

- Present South Korea's experience in its early inventory of the epidemic and overcome the economic effects of it.

- Identify the strategies and plans that this country has pursued in reviving the economy, and see how it benefits from digital technology and communications.
- Find out the importance of digital transformation at present and in post-epidemic worlds.

Study methodology

The study used the descriptive analytical approach by presenting South Korea's experience in accounting for the epidemic and overcoming the economic effects of the epidemic under digital transformation, as well as analyzing and presenting the engines of economic recovery in this country.

1. Digital transformation "post-pandemic"

The Covid-19 pandemic has had economic, social and environmental consequences that have prompted many governments around the world to reconsider their policies. South Korea was one of the countries that found in these unprecedented circumstances an opportunity for change, recently launching the "New Korea Deal".

1.1. The Korean New Deal

The policy document defines the Korean New Deal as "a national development strategy to support the country's recovery from the pandemic crisis and lead the global action against structural changes" (Government of Republic of Korea , 2020) As implied in the term "New Deal", the South Korean government promoted the plan as a twenty-first century Korean equivalent to the post-Depression New Deal program implemented by the Franklin D. Roosevelt administration in the 1930s (Ministry of Culture, 2020).

In the main policy document and the president's speeches, the New Deal plan was defined as an initiative for the country's transition to "seondogukga" (a leading nation). The plan was designed "not only to adapt to the structural changes but also to lead the global community in the post-COVID-19 era" (Government of Republic of Korea, 2020) .

The government promoted this New Deal plan as "a national strategy for a great transformation" and an effort to strengthen the social safety net to cope with economic uncertainties; moreover, the plan includes efforts to transform the country into a "smart", "green" and "safe" country (Government of Republc of Korea, 2020). The New Deal

includes three policy pillars—two industrial foci (i.e. digital and green industries) and one welfare focus (i.e. safety net building). (Kyong, 2021).

1.2. The Digital New Deal

The implementation of the New Korea Deal requires adjustments to the regulatory and legislative environment, a review of the institutional framework to support innovation and encourage private sector participation in projects on the table. (Stangarone, 2020) The first part of the document, called the "New Digital Deal", aims to create 903,000 jobs by investing in and accelerating the digital economy. This requires the investment of 58.2 trillion won (for the next 5 years) to advance the data, network and artificial intelligence (AI) sectors as the core of long-term economic development.

Its objectives include:

- Fostering industries integrating data, network and AI.
- Digitalizing education infrastructure.
- Facilitating "contactless" industries and economic activities, such as online-based micro businesses.
- Digitalizing social overhead capital that refers to capital goods available to the public. (Kyong, 2021)

1.2.1. Digital Technology and Industries

As shown in Table 1, the investment in the Green New Deal seems larger than that in the Digital New Deal. However, the digital economy is the most foundational component of the policy given its budget allocation and the central role of digital technology in both New Deal plans. In particular, the Green New Deal projects are largely reliant on markets (42.7 out of 73.4 trillion won are funded by industries), in comparison to the Digital New Deal, which will primarily be funded and controlled by the government. In the policy document and press releases, digital technology is presented as the most important driver of the plan. It is not only the key component of the Digital New Deal but also the key area of the Green New Deal, in which technological innovation for a sustainable economy is crucial. As seen in Table 1, almost all main Korean New Deal projects involve digital technology sectors. Overall, in the Korean New Deal plan, digital and data technology is presented as a major driving force of the post-pandemic economy (Kang, 2020).

Table 1: Overview of the Korean New Deal Plan (2020–2025)

• Visions ○ A smart country: "From a fast follower to a first-mover economy" ○ A green country: "From a carbon-dependent to a low-carbon economy" ○ A safe country: "From a socially divided to an inclusive society"
• Policies ○ Digital New Deal that promotes digital innovation and dynamics in the economy ▪ Investment of KRW 58.2 trillion (KRW 44.8 trillion from the treasury) to support the creation of 903,000 jobs ○ Green New Deal that accelerates transition towards a low-carbon and eco-friendly economy ▪ Investing KRW 73.4 trillion (KRW 42.7 trillion from the treasury) in such areas as green infrastructure and renewable energy to support the creation of 659,000 jobs ○ Stronger Safety Net that strengthens the basis for a people-centered and inclusive country ▪ Investing KRW 28.4 trillion (KRW 26.6 trillion from the treasury)to support the creation of 339,000 jobs

- Projects
  - Three projects for Digital New Deal
    - Data dam
    - Smart government
    - Smart healthcare
  - Four projects for both Digital and Green New Deals
    - Green and smart schools
    - Digital twin–a digital replica of an object that can be used to analyze and predict (e.g., drones and self-driving vehicles)
    - Digitalization of social overhead capital
    - Smart and green industrial complexes
  - Three projects for Green New Deal (e.g. Eco-friendly remodeling of facilities)
    - Green remodeling to enhance energy efficiency of private sector buildings
    - Green energy
    - Eco-friendly mobility (e.g. Electric vehicles)

1 trillion KRW = approximately 0.830 billion USD as of July 2020

Source: Discourse of the Post-COVID 19 New Deal in South Korea. (Modified from (Government of Republic of Korea , 2020)

1.2.2. Data Dam Project

As digital technology and industries are at the core of the Korean New Deal, it is important to examine the Digital New Deal plan in further detail by focusing on its emphasis on the data economy. The Digital New Deal's major project is to build a data economy through a national "data dam" (presented as the first project in Table 1. (Kyong, 2021)

The data dam is a central platform for collecting and economizing an extensive amount of data. As proposed by the South Korean government, the data dam project can be compared to the construction of the massive concrete Hoover Dam built during the Great Depression (1931–1936), which contributed to creating numerous job opportunities and economic recovery (Ministry of Culture, 2020).

According to the policy document (Government of Republic of Korea , 2020) , the data dam refers to a "large collection of data to support

big data development" and promotes "a data-driven economy including the collection, standardization, processing and combining of data, and ultimately secures a competitive advantage for the country by creating new industries and accelerating the digital transition of key industries". The data dam project is not only at the core of the Digital New Deal but also symbolizes the focus of the whole Korean New Deal policy—the data economy as the central realm of "digital transformation" (Government of Republic of Korea , 2020).

Building a central control tower

The policy document clearly presents the advancement of data-related industries as the core area of the policy by emphasizing the importance of collecting, disclosing, utilizing and distributing data aiming to build a central control tower; the government proposes that enterprises and corporations participate in the construction of the data dam. For this purpose, the government provides incentives, such as tax cuts for those that invest in data dam-related sectors. According to this plan, the government and corporations would exchange and process various data to generate high-quality services from which citizens can benefit; the data dam would function as a national platform where data are collected and saved (Government of Republic of Korea , 2020).

2. Data-driven economy model behind early treatment of Covid19 in South Korea

Investments and interest in the ICT sector are not new to South Korean governments; the specific emphasis on the data economy is a relatively new component of the technology policy discourse. The Moon administration introduced the data economy as a core area of its economy policy since the end of 2017 and proposed a strategy for advancing data industries in 2018, when President Moon announced the "transition to the data economy" (Cheongwadae, 2018). In this speech, Moon notes that the data economy will bring an inevitable global change, and thus "we must have a strategy to engage with the global change". (Ministry of Science and ICT, 2019)

2.1. Digital technology is a solution to existing or forthcoming crises

The data dam project reveals that the techno-solutionism "an emphasis on digital technology as a solution to the existing or forthcoming

crises" (Morozov, To save everything click here The folly of technological solutionism, 2013) (Morozov, Guardian, 2020) is central in the Korean New Deal. This is not surprising given the recent South Korean governments' support of the technology sector. They have developed digital infrastructure and, as a result, achieved some fruitful results, as proven by the country's high rank in various technology indicators, such as International Telecommunication Union (ITU)'s Global ICT Development Index, which has continuously ranked South Korea as one of top three leading countries for a decade in terms of access, use and skills of ICTs (Information and Communication Technologies). The discourse of technology as a solution to economic turmoil was evident in the Kim Dae-Jung administration (1998–2003), which took office during the Asian financial crisis. The Kim administration emphasized the ICT sector as a key sector for economic recovery and growth and thus accelerated the introduction of broadband and mobile telecommunication infrastructure (Jin, 2005).

2.2. Amendments by the Korean National Assembly to key data privatization laws

The government made a significant effort to deregulate third-party access to personal data. In response to the government's urge for legislation allowing for extensive industrial and public uses of data, the Korean National Assembly passed amendments to the three major data privacy laws in January 2020:

- The Personal Information Protection Act.
- The Act on the Promotion of Information and Communications Network Utilization and Information Protection.
- The Act on the Use and Protection of Credit Information.

The amendments included the use of personal data without the individual's consent on certain occasions (Kang, 2020).

This model of the data-driven economy appears to reinforce the extensive use of digital technologies and big data, which is considered to be the main technique behind South Korea's early handling of COVID-19. South Korea was among those countries that extensively utilized contact tracing and data collection measures for preventing and containing the virus. Individuals' digital footprints and data were extensively

collected, analyzed and shared for tracing and predicting the paths of the virus, which entailed human rights concerns (Kim, 2020) (Yi & Lee, 2020). The top-down digital surveillance system, which was accompanied by other measures such as fast testing and a relatively affordable public healthcare system, may be maintained on the basis of the public's desire to measure the pandemic in data field form by identifying and tracing the enigmatic virus through countable and measurable form. (Leach, Macgregor, Scoones, & Wilikinson, 2021)

2.3. Data is a way to generate economic profits

In the proposed Digital New Deal, data seems to be defined primarily as a means to generate economic profits rather than a commons for community and civil society. The data dam project vividly shows that "data is now a form of capital" in that it is "both valuable and value creating" (Sadowski, 2020). Extensive top-down quantification may reaffirm existing social biases, while disguising uncertainty as data, often falsely equated to fact (Madianou, 2020) (Taylor, 2020). The "digital transformation" proposed in the Korean New Deal is not transformative in that it does not substantially move beyond the temporary pandemic measures in which data-driven control was introduced and utilized for government and industries. As observed in the data dam plan, the New Deal's digital transformation draws on the model of central control rather than enabling alternative approaches to development, which is more caring, inclusive and convivial for post-pandemic transformation. (Leach, Macgregor, Scoones, & Wilikinson, 2021)

3. Analysis of South Korea's post-pandemic economic recovery engines

South Korea seems to have found a way to mitigate the health and economic effects of the Covid virus pandemic, as the United States struggles with a permanent pandemic and suffers from a slowing economic recovery; Seoul has found a way to overcome these two obstacles.

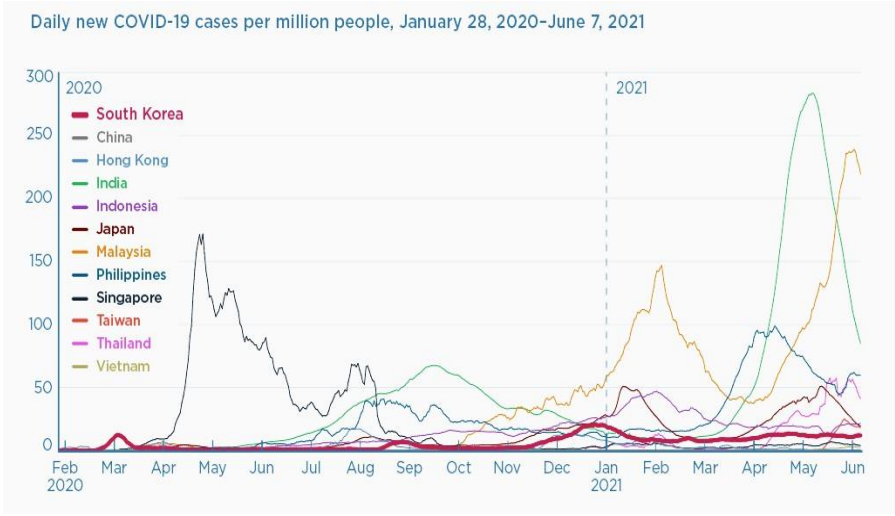
South Korea's GDP contraction for 2020 was only 1.6%, the second largest economy after China , According to OECD Chief Economist "Lawrence Boone", the world is facing the most serious economic slowdown since World War II, and the ORGANIZATION's statement confirms that South Korea's economic success has been recorded at the same time as the country has succeeded in eradicating the epidemic, which

partly explains South Korea's economic resilience, based on its very effective management of the epidemic. (2020 ،رويترز)

3.1. Hypothesis test 1: Resolute and competent management of the pandemic

South Korea has managed the COVID-19 pandemic firmly and efficiently. Early interventions focusing on collective testing, technological tracking and tracking of positive situations and social distancing measures kept covid-19 cases and related excess deaths low at actual zero by relying on the data dam project. The country's containment strategy prevented major outbreaks of COVID-19 (Figure 1) and helped to avoid a general economic shutdown. (Kirkegaard, 2021)

Figure 1: Mass testing, track-and-trace, and social distancing kept South Korea's COVID-19 case numbers low for the region



Source: Corona virus (COVID-19) Cases, https://ourworldindata.org/covid-cases?country=~KOR

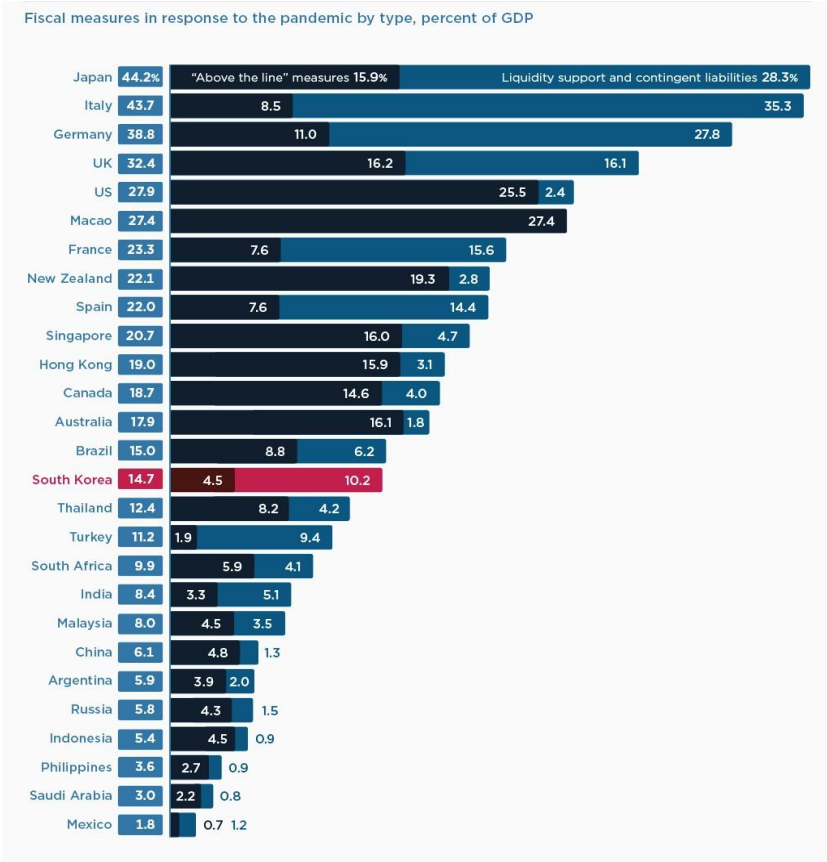
According to Christophe Andre, chief economist at the Organization for Economic Cooperation and Development (OECD) in South Korea, south Korea's main reason for its success is its ability to contain the epidemic much better than others, so economic activities have been

disrupted only very limitedly, as can be seen in Google's mobility data, which show that South Korea barely changed its usual procedures after the outbreak in late February 2020. (2020 ،رويترز)

Effective financial response

The scope of South Korea's macroeconomic stimulus has consequently been considerably smaller than in most of its regional and Group of Twenty (G20) peers (Figure2).

Figure 2: South Korea's fiscal stimulus was smaller than most other advanced G20 economies and Asian neighbors



Source: International Monetary fund fiscal Monitor, April 2021, www.imf.org/en/Publications/FM/Issues/2021/03/29/fiscal-monitor-april-2021.

Although South Korea has not been as affected as other countries, it has prepared a significant financial response, allocating the equivalent (14.7% of GDP) to companies and citizens. South Korea's financial response was not as large as that of countries such as Germany, which launched a stimulus package equivalent to (38.8% of GDP), but as Seoul provided support quickly, it helped prevent lower consumption and continued to provide support in the form of loans and guarantees totaling about $230 billion.

South Korea's financial response has been more effective than in other countries, with many services available to spend those cash payments on, which has translated into more consumer spending and less savings, and while South Korean consumers have spent a large part of the stimulus money, many households in the United States have simply saved the famous $1200 stimulus checks.

Some South Korean provinces have pursued creative solutions to ensure that government payments are recycled into the economy and help promote consumption. For example, Lee Jae-myung, governor of the most populous Gyeonggi province, decided to test non-cash payments, with each resident receiving about $85, an amount that could be spent over three months, but these payments came in the form of a local currency that could only be spent in district stores, not cash that could be saved. (رويترز، 2020)

3.2. Hypothesis test 2: Export contribution to GDP

South Korean exports deteriorated quickly as the pandemic spread beyond China. In April 2020, exports fell by 24.3 percent, marking the largest single month drop in exports since the Global Financial Crisis 11 years earlier. For the full second quarter, exports of goods would decline 11.5 percent and services by 22.1 percent.

Exports of goods began to improve in the second half as key export markets started to recover. In the third quarter exports to the United States rebounded by 10.1 percent, with similar or stronger growth to Taiwan, Germany, and Canada. In the fourth quarter, exports returned to growth with key partners in South and Southeast Asia such as India, Vietnam, Malaysia, Indonesia, and Thailand.

Despite China's own quick recovery, exports from South Korea to China were relatively stable for most of the year. In the third quarter they

only grew by 2.2 percent and then declined by 0.5 percent in the fourth quarter.

With the need for social distancing many firms switched to remote work and virtual meetings. Thanks to its strengths in semiconductors and IT, South Korea was well placed to meet the growing demand for laptop and desktop computers as more workers moved into home offices. (Stangarone, 2020)

South Korea benefited from strong global demand for its electronic hardware, semiconductors, and cars in the second half of 2020, extensively relying on exports to rapidly return to growth. The contribution of goods exports to GDP cooled in the first quarter of 2021, however, when rebounding domestic consumption and gross capital formation supported growth (figure 3).

Figure 3: Surging demand for South Korean exports drove the initial economic recovery

Source: Korean Statistical Information Service, Statistical Database, https://kosis.kr/eng.

Strong external demand and social distancing restrictions dampening domestic consumption have seen South Korea's current account balance rise significantly since the second half of 2020, to over 5 percent of GDP in the second quarter of 2021. This highlights the economic boost from external demand, despite a roughly 10 percent increase in the foreign exchange value of the won between May and December 2020

South Korea's early success in testing and tracing proved a boon for the medical and pharmaceutical sector. Exports of test kits grew 758 percent with Italy followed by the United States, India, Germany, and Spain as the top five export markets. Exports of products related to test kits also grew significantly. Exports of the diagnostic reagents used in test kits grew by 265 percent; the pharmaceutical industry saw exports as a whole increase 23.3 percent in 2020. (Stangarone, 2020)

More than half of South Korea's goods exports during the pandemic were capital goods in Harmonized System (HS) categories 84 (nuclear reactors, boilers, machinery and mechanical appliances; and parts thereof); 85 (electrical machinery and equipment and parts thereof); and 87 (vehicles other than railway or tramway rolling-stock and parts and accessories thereof), produced predominantly by *chaebols* (large industrial conglomerates). Most *chaebols* are either currency hedged to a certain degree via financial market instruments or, because of their large global presence, naturally hedged by their location of production. Their sensitivity to short-term movements in the exchange rate is therefore likely to be muted and their foreign pricing and derived export competitiveness less dependent on the exchange rate than it otherwise would be. (Kirkegaard, 2021)

South Korea's reliance on goods exports early in the pandemic may have benefited from intentionally generated exchange rate effects. But the larger forces are more likely to have been the temporary benefit from adjacency to China's rebounding economy and the social restriction–related stifling of growth in the domestic services sector.

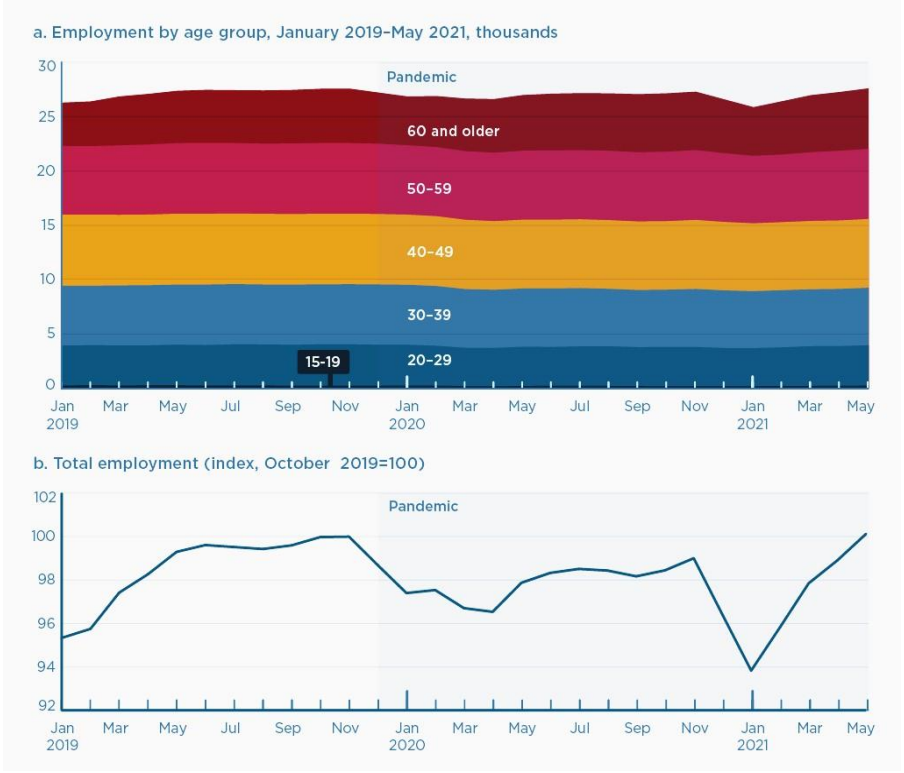
3.3. Hypothesis test 3: Recovery of employment

South Korea lost 218,000 jobs throughout 2020, the largest number since the 1997-1998 Asian financial crises due to the fallout from the Corona pandemic. To prevent further job losses, the government planned to continue providing tax incentives to companies that increase

employment and support sectors that have experienced sharp job declines. Of its 30.5 trillion won budget for job creation, 5 trillion won was spent in the first quarter of 2021 and will employ more people in the public sector. (وكالة يونهاب للانباء، 2021)

Employment in South Korea has recovered strongly; by May 2021, it had risen to above pre-pandemic levels, albeit with some job redistribution toward older workers (figure4). The increase suggests that consumption growth is likely to continue in 2021 and to contribute strongly to GDP growth going forward (see figure 3 for the first quarter of 2021). If South Korea can continue to prevent new infection waves, gradually scale back social mobility restrictions, and fully reopen its job-rich services sector, employment-driven gains in consumption should remain a potent driver of economic growth. (Kirkegaard, 2021)

Figure 4: South Korean employment exceeded pre-epidemic levels

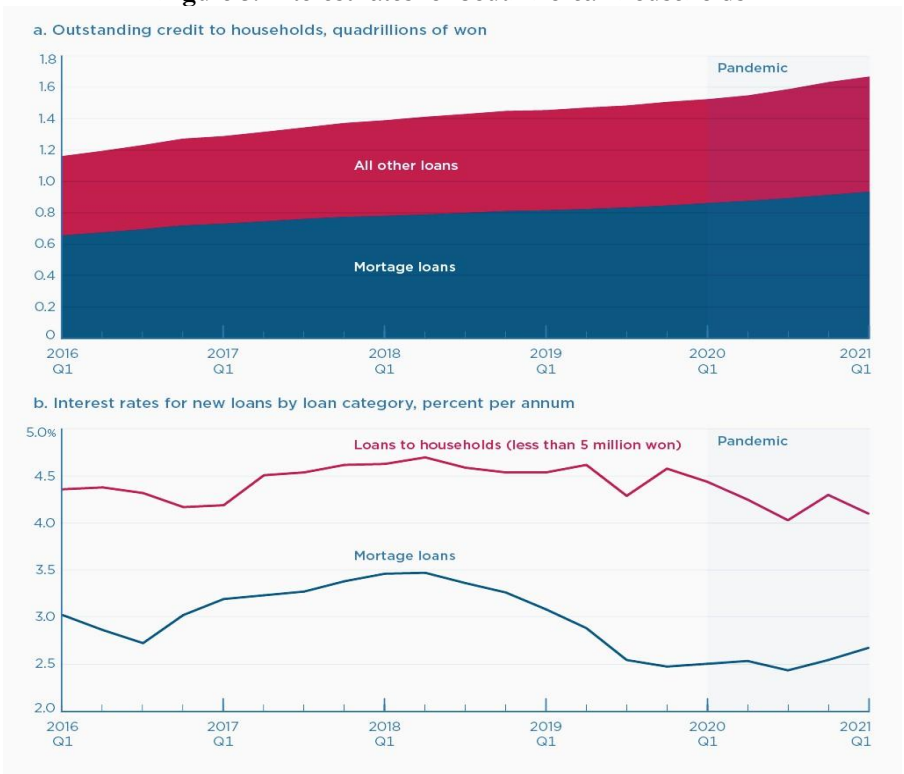


Source: Korean Statistical Information Service, Statistical Database, https://kosis.kr/eng.

3.4. Hypothesis test 4: Central Bank's Capacity for Stimulus

Central banks should remain willing to provide abundant liquidity to banks and non-bank financial companies, particularly those that lend to SMEs, which may have been less willing to face severe disruption. Governments can provide temporary and targeted credit guarantees to meet their short-term liquidity needs. For example, Korea has expanded lending for business operations and providing guarantees on loans to affected SMEs. Regulators and regulators of financial markets would also encourage the temporary extension of loan maturities on the basis of a specific time frame. (2020 ،غوبيناث)

Figure 5: Interest rates for South Korean households



Source: Korean Statistical Information Service, Statistical Database, https://kosis.kr/eng.

South Korea retains sizable potential domestic monetary policy stimulus capacity. During the pandemic, the central bank cut interest rates

only modestly, by 75 basis points (to 0.50 percent). Households saw virtually no reduction in the interest rates they faced, causing only a modest acceleration in new household loans (figure 5). Were the pandemic to linger in South Korea, the central bank could stimulate domestic credit creation to the household sector—and with it domestic consumption—to boost growth. (Kirkegaard, 2021)

4. Conclusion

Although South Korea is one of the first countries to suffer from the Covid-19 virus, it has been able to deal with it well and confine it to an early date, and has also been able to revive the economy by developing effective and impressive plans and strategies.

Many countries have chosen to follow the Korean strategy approach, such as Germany. None of this would have happened if South Korea had not had the basic infrastructure and technological capabilities built over the past several decades and supported by cooperative government participation. South Korea's economy has long been led by a selection of conglomerates (chaebols) that have focused on export-oriented industries such as consumer electronics and computers.

South Korea has also adopted a new deal aimed at taking the lead in becoming a world leader in the post-epidemic world. The deal is one of the first national policies after the epidemic, but the policy has not received attention from the general public because the Covid-19 crisis has been prolonged and has become more serious as the state has faced several waves of rising epidemics. However, the new deal does not adequately clarify its vision of global changes during and after the epidemic.

Results

-South Korea has succeeded in limiting the epidemic by relying on a tracking data dam project and establishing a full network of screening centers.

-South Korea has benefited from a rapprochement with China's recovering economy, continued strong global demand for its electronics and automotive exports, and exports' contribution to growth has increased during the epidemic.

-Even if the epidemic continues in Asia, South Korean goods exports appear well placed to take advantage of strong global demand driven by

high demand for final goods in North America and Europe. This proves the validity of the first and second hypotheses.

-Employment has now returned to pre-pandemic levels, providing a strong basis for continued growth in consumption, and the government has predicted that the digital dam will be a major driver of the country's digital transformation, through which up to 390,000 jobs will be created over the next five years.

-In short, South Korea's macroeconomic recovery from the epidemic seems to be on track, mostly driven by domestic demand. COVID-19 will not leave a material impact on the government's financial situation or damage the labor market. Which proves to us the validity of the third and fourth hypotheses. However, the country is still facing waves of rising epidemics as it becomes more serious.

In the light of these results, we can make a number of suggestions that can be limited to:

Through South Korea's experience in the face of the epidemic, it turns out:

-In post-epidemic worlds, developed Countries must undertake industrial revolutions based on concrete electronic production systems aimed at connecting global material and virtual production, as well as digital processes that combine digital conversions with the integration of value chains, products or services.

- Developing Countries should also activate the new digital age by closing the digital divide by turning the Internet into an affordable, open and secure public service. Strengthen regulations that ensure competition between companies, align workers' skills in accordance with the requirements of the new economy and strengthen accountable institutions.

-In this way, it is ready to some extent to deal with any crisis and intervene quickly to address it.

REFERENCES:

1.Arabic references:

رويترز (2020-09-22) "الصمود وقت الأزمات. كيف نجا اقتصاد كوريا الجنوبية من كورونا؟" *مجلة فورين بوليسي* متاح على www.aljazeera.net/ebusiness/2020/9/22/مندول-العالم-كوريا-الجنوبية-بين-جميع .

غيتا غوبيناث (10-03- 2020) "الحد من التداعيات الاقتصادية لفيروس كورونا بوضع سياسات موجهة كبيرة" متاح على www.imf.org

وكالة يونهاب للأنباء (21-04-2021)متاح على https://ar.yna.co.kr/view/AAR20210421002100885

2.Foreign references:

Cheongwadae (2018) "Deregulation for data economy" https://www1.president.go.kr/articles/4122

Jacob Funk Kierkegaard (01-06-2021) "COVID-19 will not leave a lasting negative imprint on South Korea's economy" https://www.piie.com/blogs/realtime-economic-issues-watch/covid-19-will-not-leave-lasting-negative-imprint-south-koreas

Jin, D. Y. (2005. "Socioeconomic implications of broadband services: Information economy in Korea" *Information, Communication & Society*.

Kyong Yoon (2021) "Discurse of the poste Covid 19 new deal in South Korea East Asia"

Kang, D. H. (2020) "The revised three data laws' key areas and prospects. 2020 KISA" (*Korea Internet & Security Agency*).

Kim, J. S. (2020**)** "Information rights swept by the wave of the 'new normal"**.** *Hankyoreh*. http://www.hani.co.kr/arti/science/issue/950338.html

Leach, M., Macgregor, H., Scoones, I., & Wilkinson, A. (2021) **"**Post-pandemic transformations: How and why COVID-19 requires us to rethink development" *World Development*, *138*. https://doi.org/10.1016/j.worlddev.2020.105233

Lee, K. S. (2020, August 6) " The Korean New Deal, planned in haste: Substantially revise it, centring on the Green New Deal". *Kyunghyang Shinmun*. http://m.biz.khan.co.kr/view.html?art_id=202008062019005

Madianou, M. (2020) "A Second-order disaster? Digital technologies during the COVID-19 pandemic". *Social Media+ Society*. https://doi.org/10.1177/2056305120948168

Morozov, E (2013) "To save everything, click here: The folly of technological solutionism" *London: Public Affairs*.

Morozov, E (2020, April 15)**.** "The tech 'solutions' for corona virus take the surveillance state to the next level". *Guardian* . https://www.theguardian.com/commentisfree/2020/apr/15/tech-coronavirus-surveilance-state-digital-disrupt

Sadowski, J. (2020) "Too smart: How digital capitalism is extracting data, controlling our lives, and taking over the world". *Cambridge, MA: MIT Press*.

Taylor, L. (2020) "The price of certainty: How the politics of pandemic data demand an ethics of care". *Big Data & Society*. https://doi.org/10.1177/2053951720942539

Troy Stangarone (2020)"The Impact of COVID-19 on South Korean Trade" https://thediplomat.com/2021/02/the-impact-of-covid-19-on-south-korean-trade-in 2020/

Yi, J,& Lee, W (2020) "Pandemic nationalism in South Korea". *Society, 57*(4), 446–451

Government of Republic of (2020) **"**Korea Korean new deal: National strategy for a great transformation" https://english.moef.go.kr/pc/selectTbPressCenterDtl.do?boardCd=N0001&seq=4948

Ministry of Culture, Sports and Tourism.(2020) "The Korean New Deal". https://www.korea.kr/special/policyCurationView.do?newsId=148874860

Ministry of Science and ICT. (2019) "Press release: Announcement of the AI national strategy". https://www.korea.kr/news/pressReleaseView.do?newsId=156366736

Corona virus (COVID-19) Cases, https://ourworldindata.org/covid-cases?country=~KOR

International Monetary fund fiscal Monitor, April 2021, www.imf.org/en/Publications/FM/Issues/2021/03/29/fiscal-monitor-april-2021.

Korean Statistical Information Service, Statistical Database, https://kosis.kr/eng