



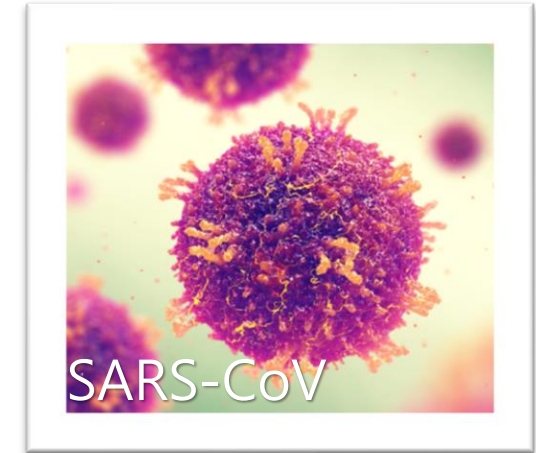
# Looking Beyond Covid-19: The Healthcare Ecosystem in Taiwan

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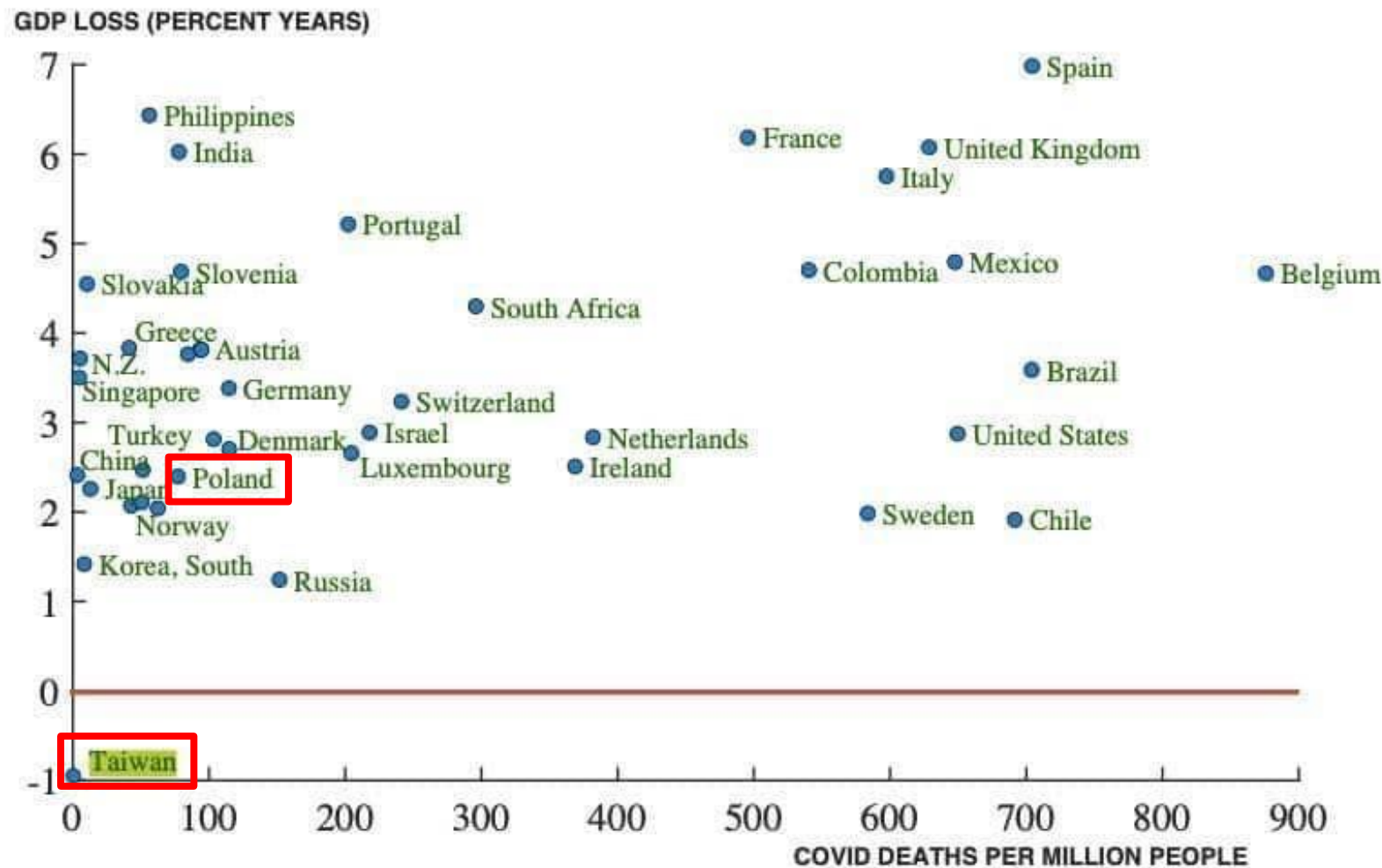
# Pandemics Overview

- 2002 – 2003 **SARS** (severe acute respiratory syndrome)  
8,096 cases, 774 deaths  
In Taiwan, 346 cases, 73 deaths
- 2009 – 2010 **H1N1 influenza**  
1,311,522 cases, 14,142 deaths
- 2012(MEA) **MERS**/ 2015 (Korea)  
2,494 cases, 858 deaths
- 2014 – 2016 **Ebola** outbreak in W. Africa  
28,610 cases, 11,308 deaths
- 2019/12~ **Covid-19**  
55,738,093 cases, 1,339,820 deaths (18 Nov. 2020)  
In Taiwan, 607 cases, 7 deaths (18 Nov. 2020)



# Macroeconomic Outcomes and COVID-19: A Progress Report (Oct. 2020)

Figure 5: International Covid Deaths and Lost GDP



Note: “GDP Loss” is the *cumulative* loss in GDP since the start of 2020 and is annualized. For example, a value of 6 means that the loss since the start of 2020 is as if the economy lost six percent of its annual GDP.

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Global Development

## Macroeconomic Outcomes and COVID-19: A Progress Report

Jesús Fernández-Villaverde

Charles I. Jones

October, 2020  
Working Paper No. 1080

John A. and Cynthia Fry Gunn Building | [kingcenter.stanford.edu](http://kingcenter.stanford.edu)

# Export of Healthcare Services

**With Taiwan's excellence and expertise now known internationally**

- Solutions such as diagnostics, infection control, clinical guidelines, smart hospitals and data-driven medical care development, should be shared with intl' partners, in addition to Covid-19 how-to.
- Taiwan could provide with the appropriate solutions for Healthcare sectors of Poland.

# Advantages of Taiwan Medicine



## Outstanding Healthcare Insurance System

- ❖ 99.6 % of Taiwan's 23.57 million people covered under the government-run National Health Insurance (NHI)
- ❖ Good accessibility-The NHI has a very high approval rate among Taiwanese people



## High Quality Healthcare Services

- ❖ Out of 200 of the largest hospitals in the world, 14 are in Taiwan.
- ❖ Taiwan ranks third, just after the USA and Germany, in terms of medical service quality.
- ❖ shorter wait times for beds in large hospitals and medical centers



## World-class Health Database

- ❖ National Health Insurance Research Database has been collected for more than 20 years
- ❖ Medical centers with complete medical record and imaging data

# Advantages of Taiwan ICT industry



## Most concentrated industry clusters

- ❖ World's densest and most technologically advanced semiconductor production base.
- ❖ The Major Procurement Center for Global ICT Companies & Buyers



## Strong ICT manufacturing capabilities

- ❖ **Rich manufacturing experience and outstanding technologies**
- ❖ The heart of the world's tech supply chain, offering high-quality products from IC design, semiconductor, to electronics.



## Rapid Commercialization

- ❖ Ranked 1st in Worldwide Major ICT product market share for more than 10 products
- ❖ **High levels of hardware/software integration capability for flexible production and rapid commercialization**





ICT



Hospital



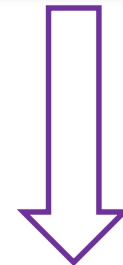
Smart Hospital



Healthcare IoT  
Platform



Health AI



Medical &  
Wearable Devices



Hospital  
Equipment

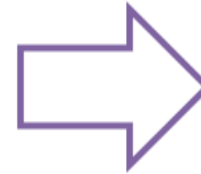
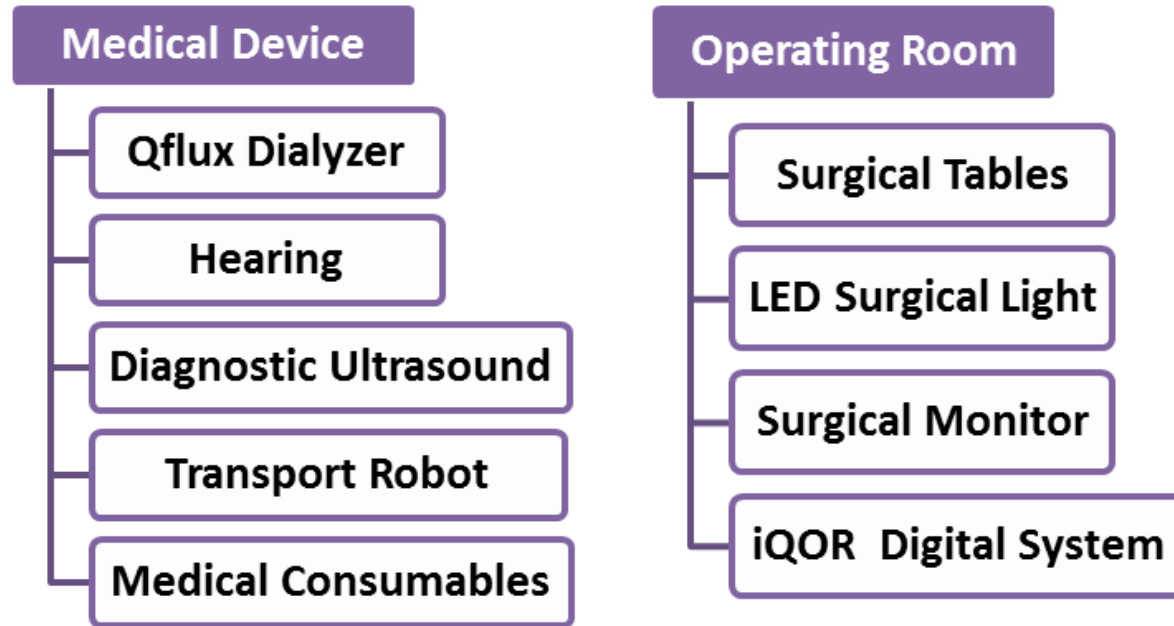
# Taiwan's ICT Sector in Healthcare

## Precision Healthcare Industry

	Mobile health	Medical equipment	Smart hospital	Gene/cell therapy	Biomedicine	
Companies	<div><div>acerCOMPAL</div><div>FOXCONN <small>Quanta Computer</small></div><div>TuLhtc</div><div>ASUSCoretronic</div><div>LEADTEKMITAC</div></div>	<div><div>BenQ</div><div>Qisda</div><div>K LASER TECHNOLOGY INC</div><div>LARGAN</div><div>LITEON</div><div>wistro</div><div>5XLIX</div><div>DELTA</div><div>RITEK</div></div>	<div><div>wistron</div><div><small>Quanta Computer</small></div><div>MITAC</div><div>BenQ</div><div>Qisda</div><div>htc</div><div>ADVANTECH</div><div><small>強電集團</small></div><div>Ei GROUP</div><div><small>英業達</small></div><div>Inventec</div><div><small>Technology Inc.</small></div><div>avalue</div></div>	<div><div>FOXCONN</div><div>acer</div><div><small>MetaTech</small></div><div><small>COMPA 英業達</small></div><div>Inventec</div><div>wistron</div></div>	<div><div><small>UMC</small></div><div><small>Powerchip</small> 力晶科技</div><div>MEDIA TEK</div><div>REALTEK</div><div>TuL</div><div>LEADTEK</div></div>	
Product pipelines	<div><div>■ Tele-healthcare</div><div>■ IoT solutions</div><div>■ Wearables</div><div>■ Health management</div></div>	<div><div>■ X ray / ultrasound</div><div>■ Micro CT</div><div>■ Surgical / service robots</div><div>■ Capsule endoscopy</div><div>■ Hemodialyzer</div><div>■ Molecular pathology</div><div>■ Vital sign monitor</div></div>	<div><div>■ Smart ward/operating room</div><div>■ Surgical VR</div><div>■ AI solution</div><div>■ HMS</div><div>■ EMR / EHR</div><div>■ Medical display</div></div>	<div><div>■ DNA sequencer</div><div>■ DNA microarray</div><div>■ Protein &amp; genetic testing</div><div>■ CTC system</div><div>■ Cellular therapy</div></div>	<div><div>■ AI chip</div><div>■ Biochip for gene sequencing</div><div>■ RF &amp; Wireless chip</div><div>■ Biosensor</div><div>■ Display component</div><div>■ Organic semiconductor</div></div>	
Areas of application	<div><div>IoT</div></div>	<div><div>5G</div></div>	<div><div>AI</div></div>	<div><div>VRAR</div></div>	<div><div>CLOUD COMPUTING</div></div>	<div><div>BLOCKCHAIN</div></div>



## Featured Products



## Solutions

### Smart Operation Room



ODM / OEM of  
Medical Device

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## Other Smart Healthcare Solutions

Fitness System

Smart Wearables

Smart Ward

Health Management System

Long-Term Care Monitoring Solution

# Taiwan leading hospitals are expanding their productivity from building smart hospital...



彰化基督教醫院  
CHANGHUA CHRISTIAN HOSPITAL



員林基督教醫院  
Yuanlin Christian Hospital



U.S. Green Building Council  
LEED Gold Level Certification on  
Dec, 2015



ICT Players launch products and solutions:

- ◆ Smart Nurse Station
- ◆ Smart Ward
- ◆ Smart Clinic
- ◆ Smart Counter
- ◆ Smart Dialysis
- ◆ Smart Operation Room
- ◆ Multimedia interaction
- ◆ Accompany robot
- ◆ Logistics Management

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# Themes

## Epidemic Prevention

- Telemedicine
- Robotics
- Rapid test
- Infection control

## AI in Healthcare

- Diagnostics
- Precision medicine
- Big data
- Cloud-based solution

## Precision Health

- Mobile Health
- Smart home
- Health promotion



***Welcome to TAIWAN***

***Thank you!***