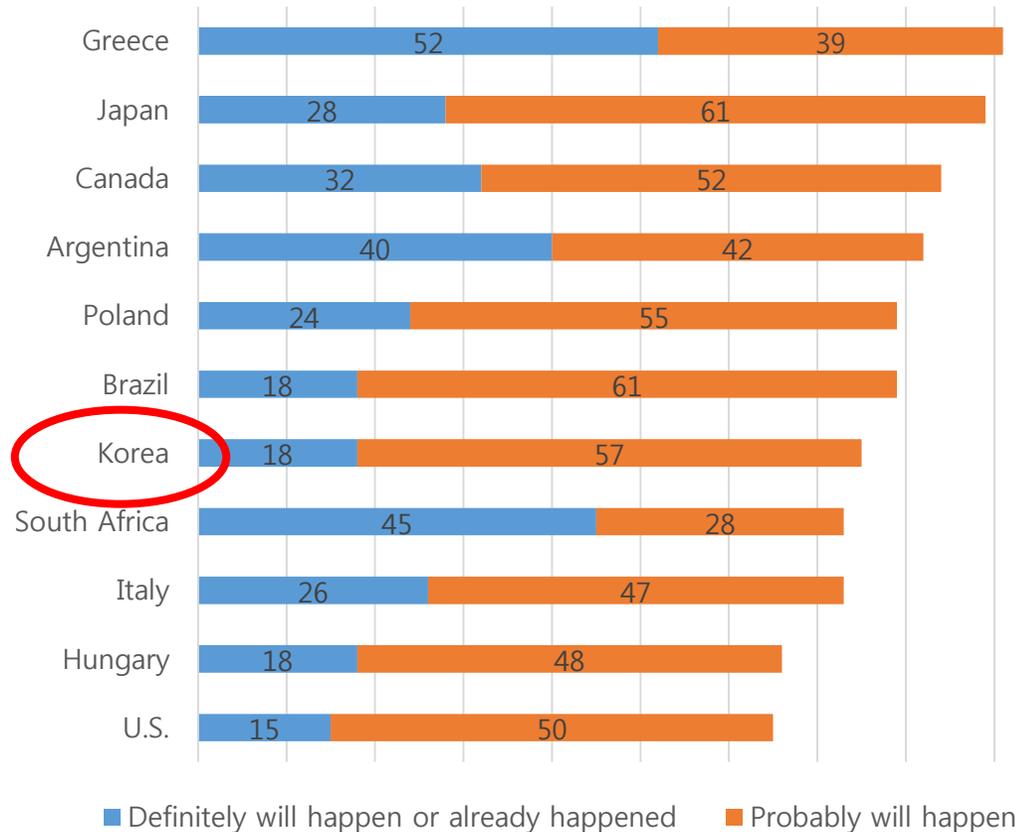


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Digitalisation and Coping with the Future of Work

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Robots and computers will take over jobs now done by humans



- Are you ready to prepare your career in light of the progress of digitalisation?
 - I know it is necessary but am hardly preparing myself for it: 72%
 - Preparing myself more or less for it: 14%

Source: Pew Research Center 2018;
Incruit Korea 2017

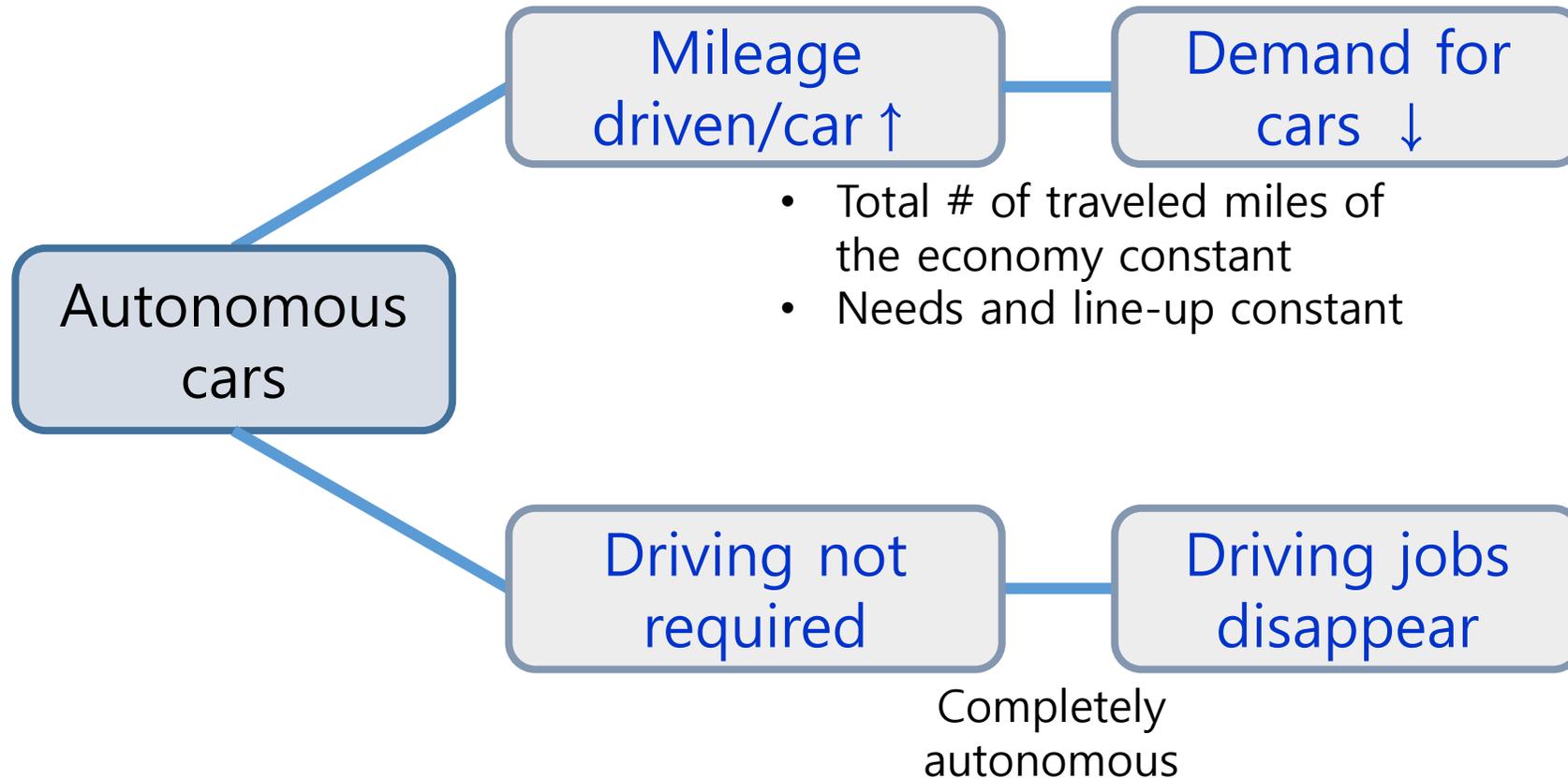
Source: Incruit Korea 2017

Fears and Pessimism

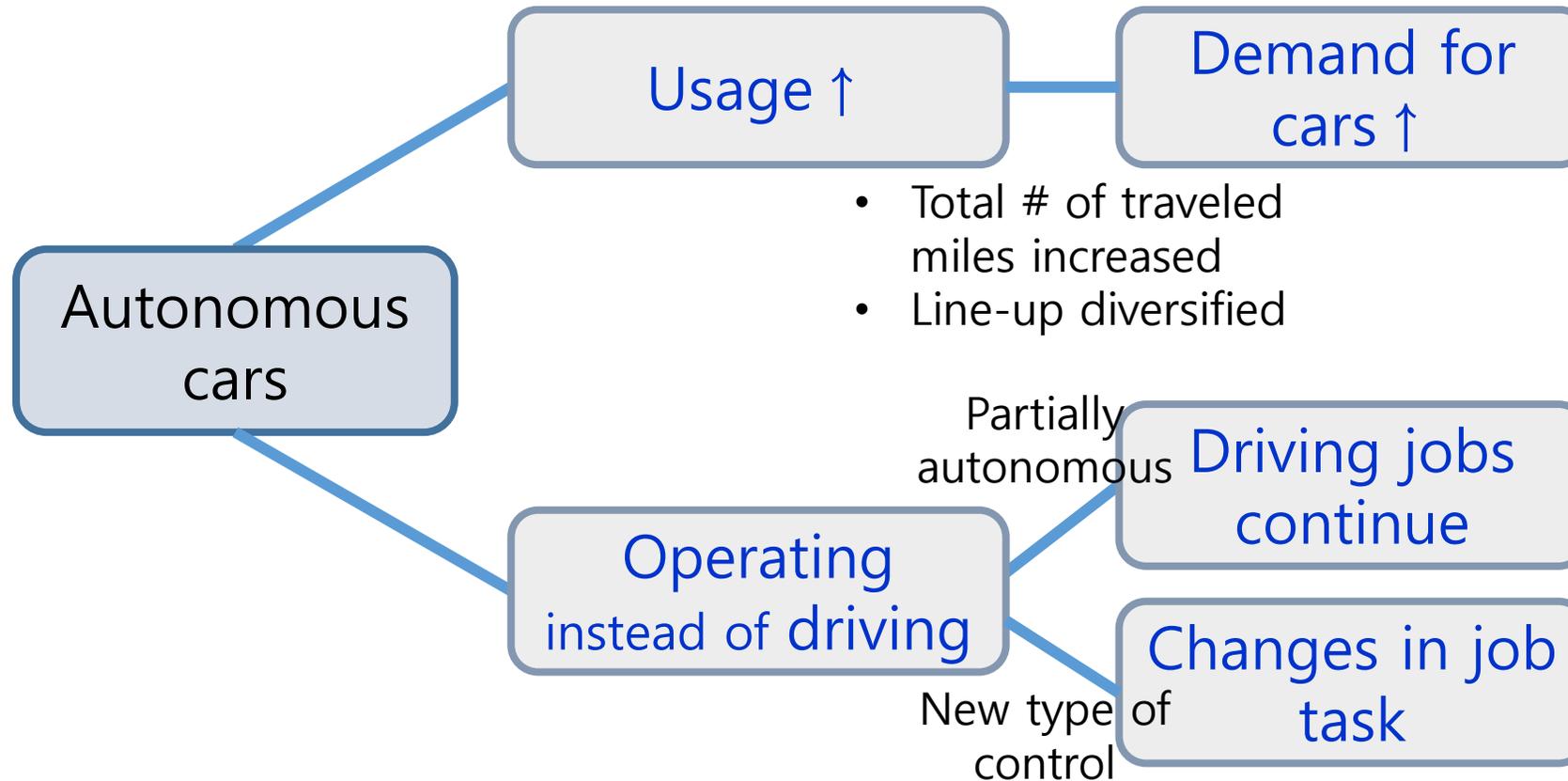
- Increasingly, more and more people are interested in the 'future of jobs'.
- People think that their jobs are jeopardized while the demand for jobs for which they don't have skills for, like data scientists, programmers, etc. is increasing
- Whether they are physical or mental workers, people keep asking "Can my job survive?"

- It is true that disruptive shocks come from all directions: business models, production process, goods and services, etc.
- Only a few seem to have opportunities to develop their careers in jobs provided by firms.
- Does this pessimistic perspective have solid ground which will continue for long?

Stereo-typed foresight



Alternative foresight



Two alternative foresights : example of autonomous cars [1]

- Futurists predict that the auto industry will shrink and become subordinate to car lease companies.
- Also, this technology will not only make drivers and specialty vehicle operators obsolete but also threaten the jobs of traffic analysts, insurance agents, claims adjusters.
- This one-sided long-term forecast overlooks much in-between evolution.
- It is based on the assumption that the total # of miles traveled nation-wide will be constant while the utilization rate of cars will increase with the development of autonomous cars.

Two alternative foresights : example of autonomous cars [2]

- Autonomous cars in the near future will be user-operated instead of completely self-driving.
- 'Drivers' won't simply go away – they will change: You may not have to “drive” your car, but you will still need to “operate” it; Professional chauffeurs might be able to do this for you in a virtual reality room!
- With the diffusion of autonomous cars, the utilization rate of cars will increase, however, people will travel more than they do now.
- The lineup of consumer cars will diversify to include inventions like flying cars.
- If this is true, jobs in the auto industry and those in related industries (for example, insurance companies) will also change rather than disappear.
- Though technological changes may seem disruptive, they won't eliminate all the activities of our jobs, and we may find, if we are willing, time for a smooth transition from one task to another.

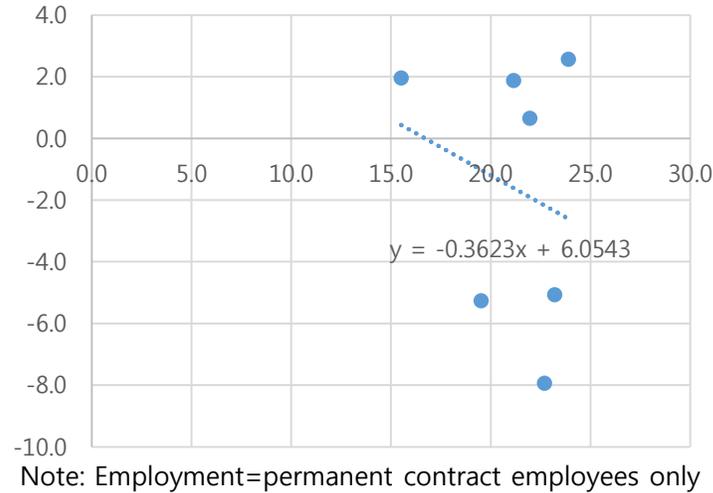
◆ On-line transaction vs.
Perm. worker growth : (-)

◆ On-line transaction vs.
solo self-employed : (+)

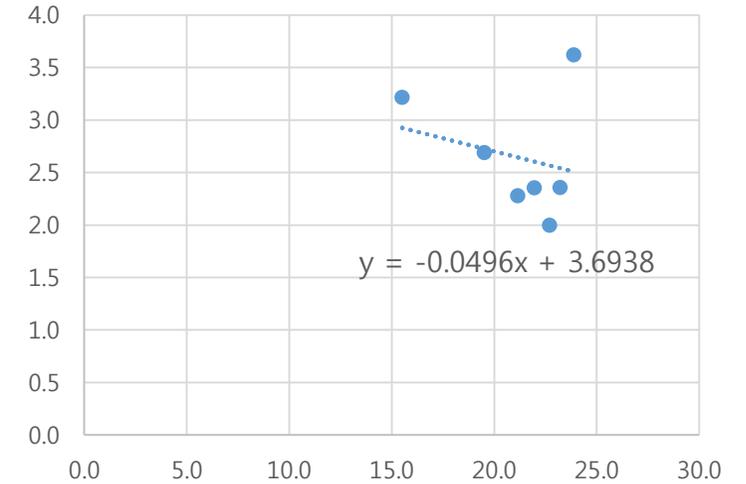
❖ On-line transaction =
internet + mobile
shopping transaction

- ❖ Korean Labour Market 2017
- ✓ Employees: 20 mn
 - Perm. contract : 13.5 mn
 - Temp. contract : 5 mn
 - Daily contract: 1.5 mn
- ✓ Self-employed: 5.7 mn
 - Solo self-employed: 4.1 mn
 - Employers: 1.6 mn
- ✓ Unpaid fam. workers: 1.1

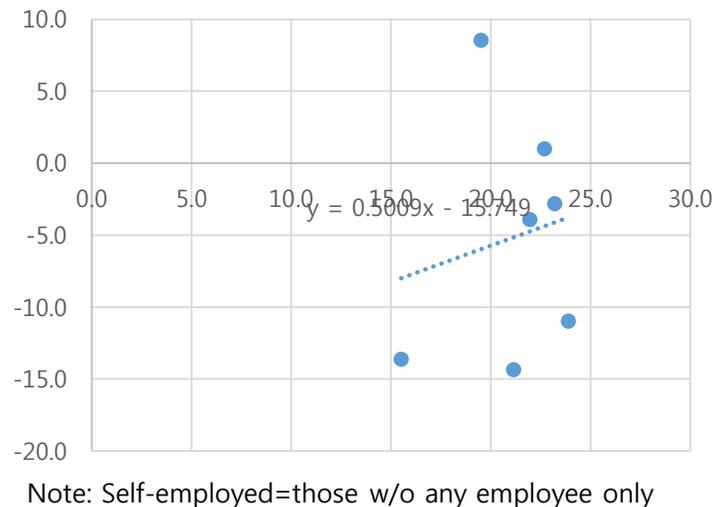
Employment and on-line transaction (Service industry)



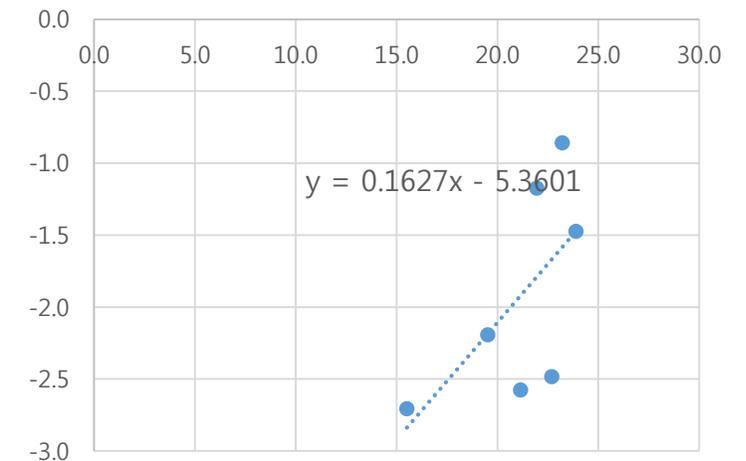
Employment and on-line transaction (Whole economy)



Self-employed and on-line transaction (Service industry)



Self-employed and on-line transaction (Whole economy)



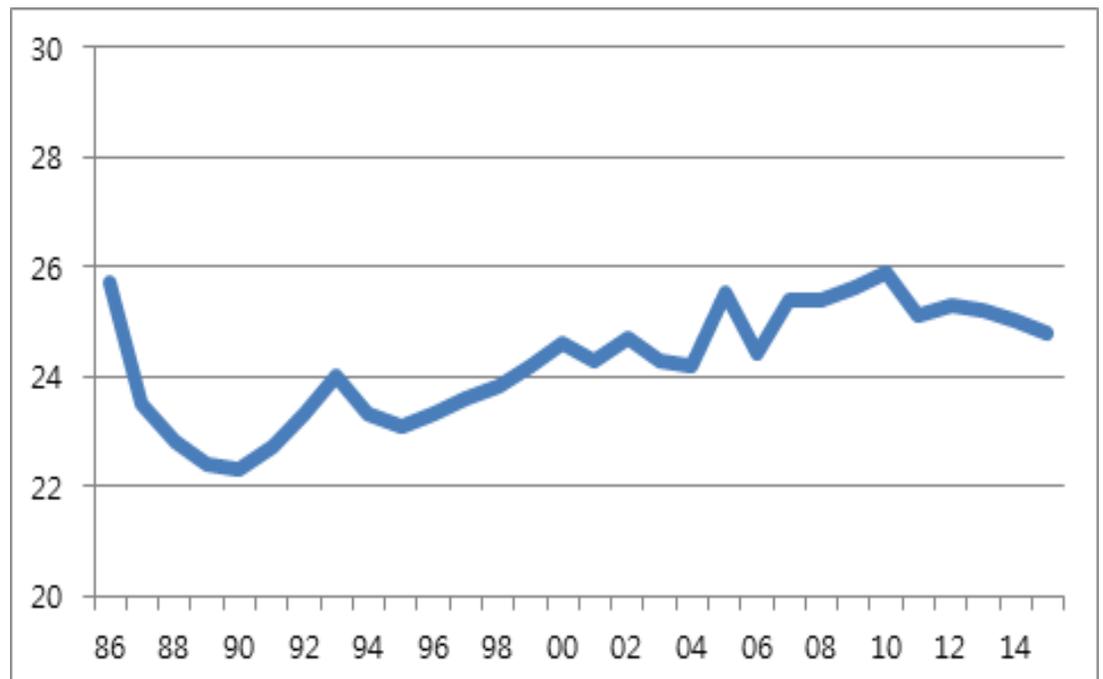
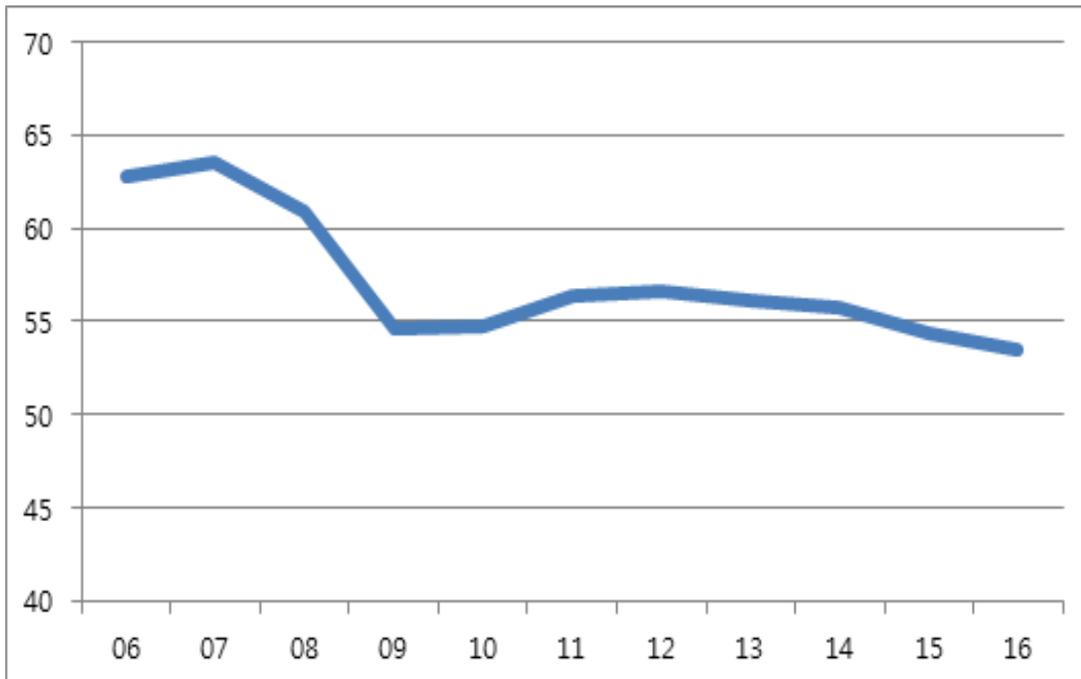
A third of employed workers are non-regular : 32.6%('03)

=> 32.8%('16)

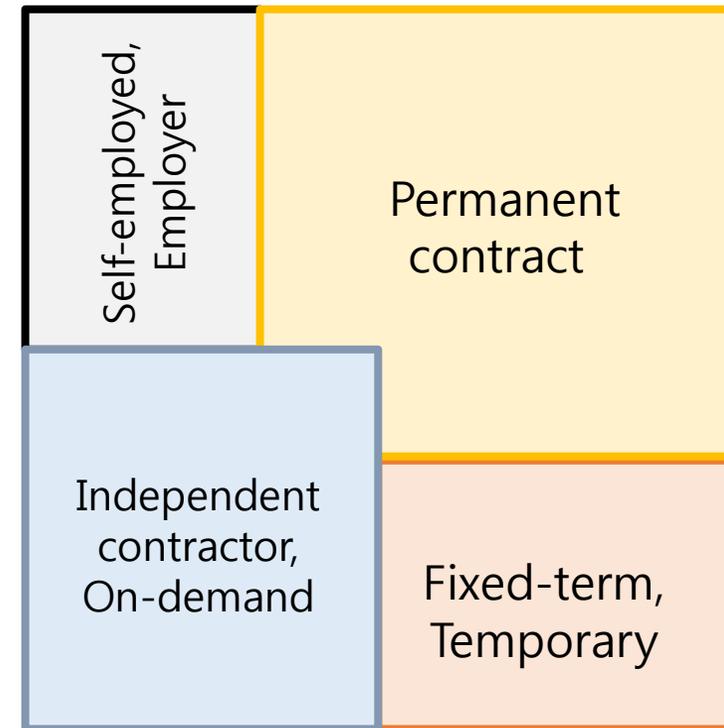
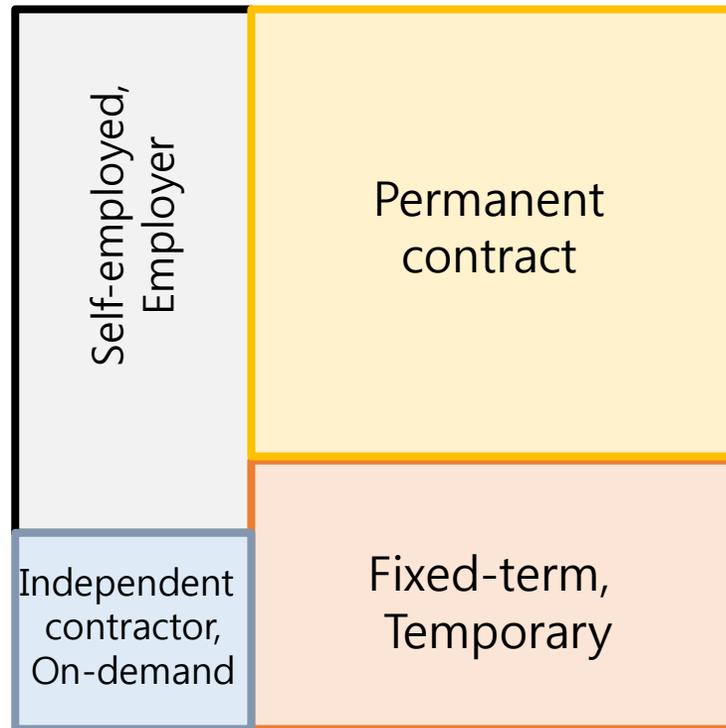
- Flexibly laid-off
- Relative wage level : 53-56% of reg. workers wages(Monthly)

Proportion of low wage workers

- 17.3% of regular workers
- 42.7% of non-regular workers



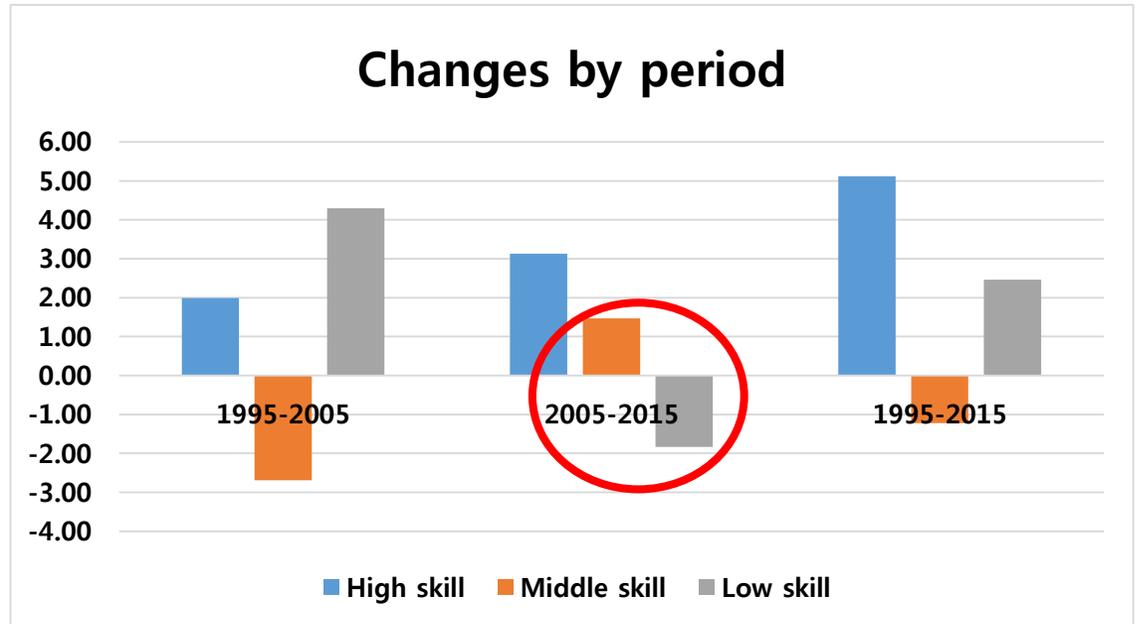
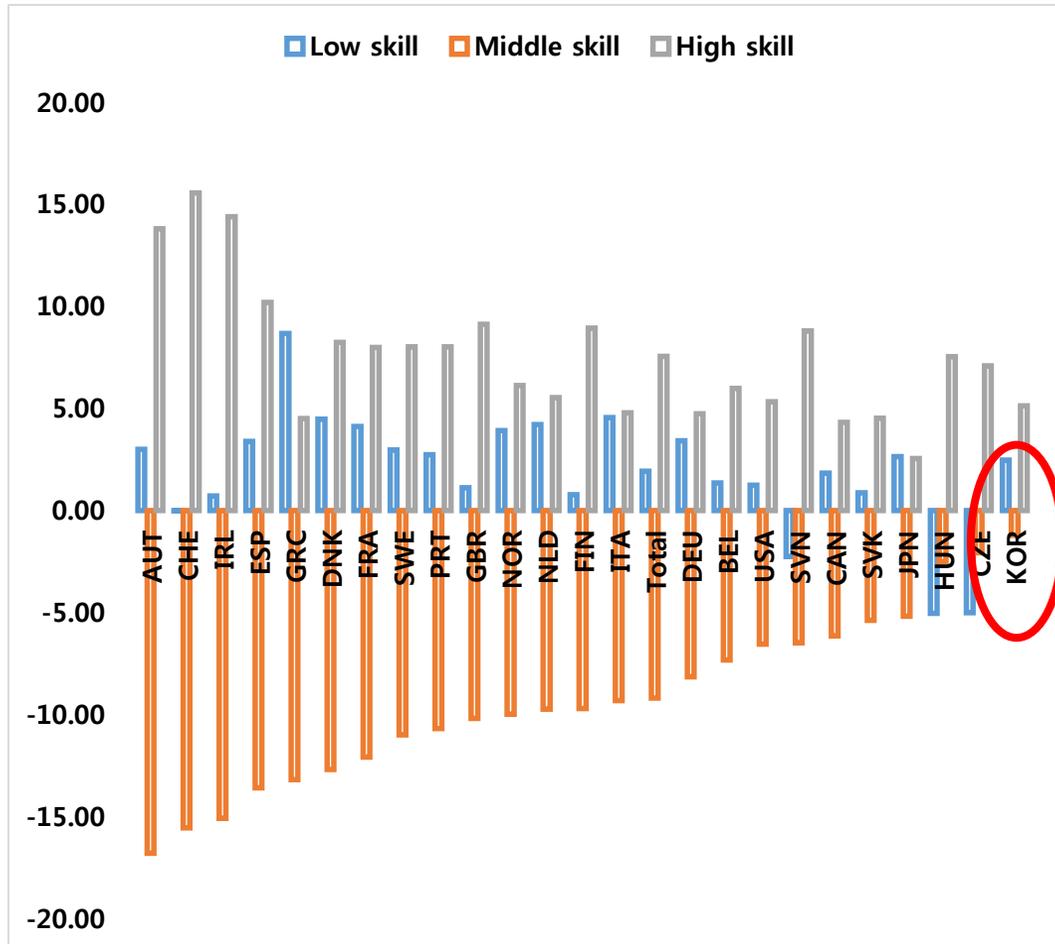
Non-standard type of employment increasing



- Permanent contract
- Self-employed, Employer

- Economically dependent independent contractor, On-demand
- Fixed-term, Temporary

Percentage change in the share of total employment(1995-2015)



Job polarisation was mainly due to the change in the first decade in Korea

The change in the second decade is not mainly explained by technological changes but enrollment rate to univ., globalization of production base of Korean firms, etc.

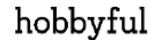
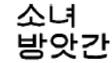
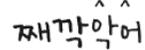
Source: OECD Employment Outlook 2007

Statistics Korea, Economically Active Population Survey

Changes in the World of Jobs in Korea

- Firms are using less protected and less expensive workers, and non-standard labour contracts.
- Korea was among those OECD countries where many middle-skill jobs have disappeared over the last two decades.
- However, this happened in the first decade and the change in the second decade is due more to labor supply factors and the globalization of production bases of Korean firms.
- Adaptability becomes more important than ever while not all of the labour market participants succeed in adaptation; some find increased opportunities for jobs and higher income while others do not.

social ventures in Sungsoodong area



D.CAMP



Efforts for Enhancing Adaptability

- Some large firms, start-ups, social ventures, project-oriented problem solving labs and learning labs (Modulabs, Flipped School, Awesome School, Impact Basecamp, D-Camp, etc.) are rapidly adapting to new possibilities which workers can piggy back on to.
- Sluggish adjustment is observed in the official education system, outdated & complicated labor market regulations and employment relations.
- An overwhelming number of SMEs remain in low productivity trap, waiting for new entrepreneurship.
- To overcome job and income insecurity and unemployment, it is necessary to adjust labor market regulations and the social protection system in order to meet the demands of the digital era.
- Many know that workplace cooperation as well as social coordination is important in coping with new challenges, but this is an area in which we have hardly seen any meaningful progress.

New institutional arrangements discussed among experts in Korea

- Protection of non-traditional contract workers by introducing a third category of worker to provide a suitable combination of labour standards and collective rights.
- Labour standards from working time regulation to minimum break time regulation.
- Establishing the 'Fair Labour Commission' which proactively plays a rule-setting role or recommends correctional measures vis-à-vis non-standard labour contracts as the Fair Trade Commission does vis-à-vis product market.
- Introducing Wage Loss Insurance to cope with technological unemployment and long-term unemployment resulting from restructuring of heavy industry workers such as in the ship-building and automobile industries.

Other discussions on improving existing institutions

- Expanding non-contributory benefits such as unemployment assistance, training services and basic pension benefits
- Balancing the working condition between very-short-part-timers, who are deprived of many of social protection and labour rights, and other workers
- Strengthening labour inspectorates.
- Securing an institutional channel for strengthening non-standard type workers' voices by encouraging and helping the association of common interest workers.
- Providing official statistics of non-standard types of employment and better guidance on classification of workers.

Epilogue

- Even though all these efforts are currently taking place, the fear of job insecurity or income loss persist; Perhaps that is understandable.
- However, we must believe that all the changes occurring because of digitalization are only transitional and that, in the end, we will succeed in overcoming the challenges.
- Our tasks will be different from now; But it is certain that we'll have more and better jobs.

Thank you