Miracle on the Han River and Beyond

Overview of Korea's
Rapid Industrial Development
and the Future

President & CEO Tae-shin Kwon
Korea Economic Research Institute

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Contents

I. Overview of the Korean Economy

The Korean Economy Before its Take-off

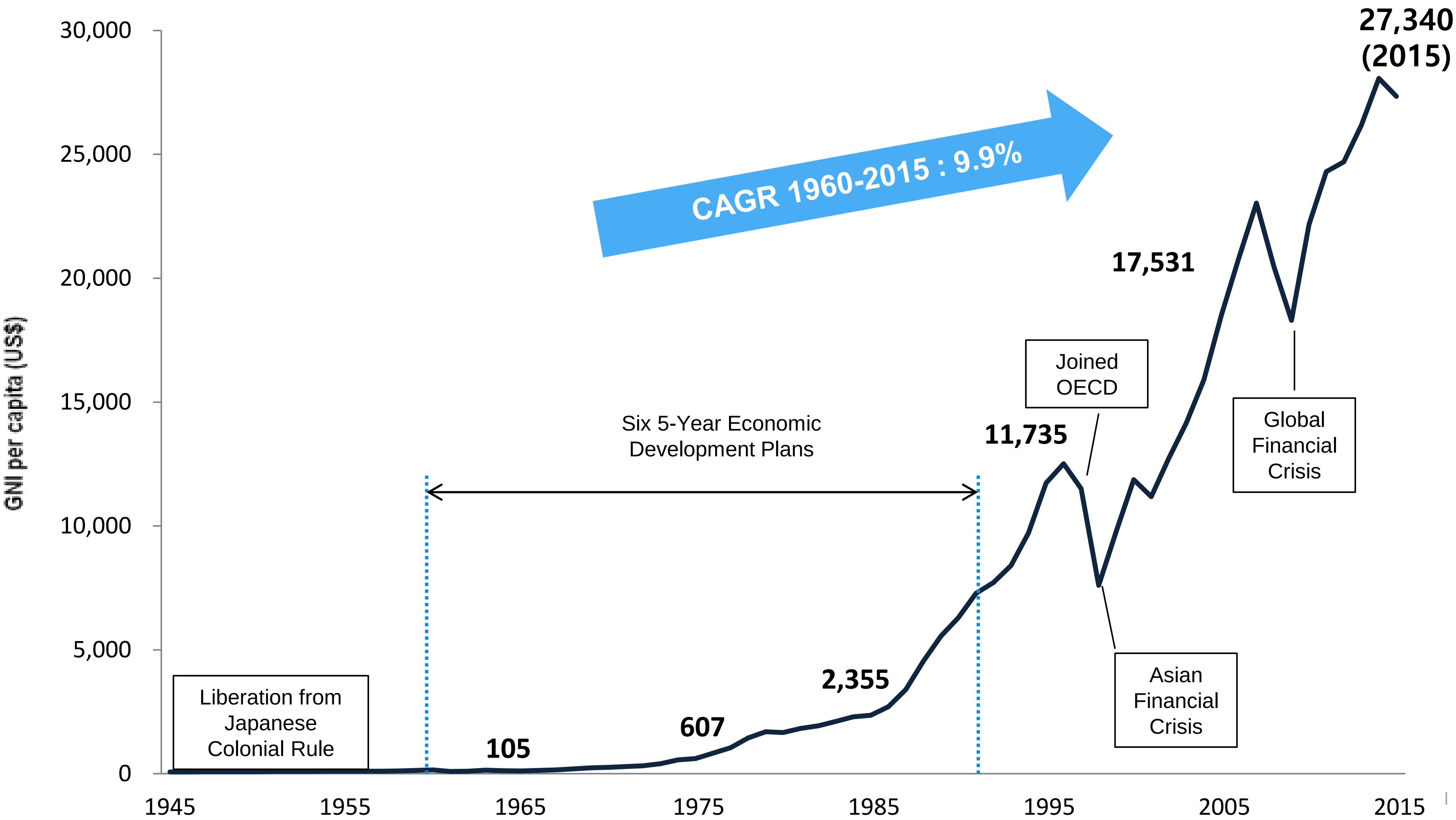
- Colonization: 1910-45
- Disruption in economic activities due to the departure of Japanese
- Territorial division: economic complementarity lost
- Korean War: 1950-53
- President Rhee: 1948-60

  Lower priority on economic development

A Brief Summary of Korean Development History: Initial Conditions

- In 1961, Korea had:
  - Per capita income of US$82, approximately the same level as Ghana and Sudan
  - Scarce natural resources
  - Infrastructure damaged from Korean War
  - Low level of savings (8%) and high level of poverty
  - US aid accounted for 50% of its budget, 70% of imports, 80% of foreign exchanges
- Korea also had a number of advantages
  - Abundant labor with high level of literacy
  - Relatively equal income distribution

Korea’s Rapid Economic Growth



Korea Over the Last Five Decades

	1961	2015	
Per Capita GNI (US$)	82	27,340	330 times
Commodity Exports (US$)	41 million	527 billion	13,000 times
Trade/GDP Share (%)	3.3%	69.8%	66.5%p ↑
Trade	$33million	$96.3billion	6006 time
Life Expectancy	55 (1960)	82	27 years ↑
Enrollment Rate (%) High School University/College	 29.3 (1970) 9.0 (1970)	 93.5 70.8	 3.2 times 7.9 times

Economic Policies During the Development Period

- Strong economic growth with outward-looking strategy (1960~1980)
  - Government-led development
  - Transition from import substitution to **export-driven industrialization**
  - Heavy and Chemical Industries (“HCI”) drive in the 1970s
- Changes in development strategy (1981~1997)
  - Stabilization policy in the early 1980s
  - Market-oriented reforms (phasing-out of policy loans, interest rate deregulation, investment adjustment in HCI, etc.)
- Financial crisis in 1997 and the swift recovery (1998~1999)
- Paving the way for an advanced economy

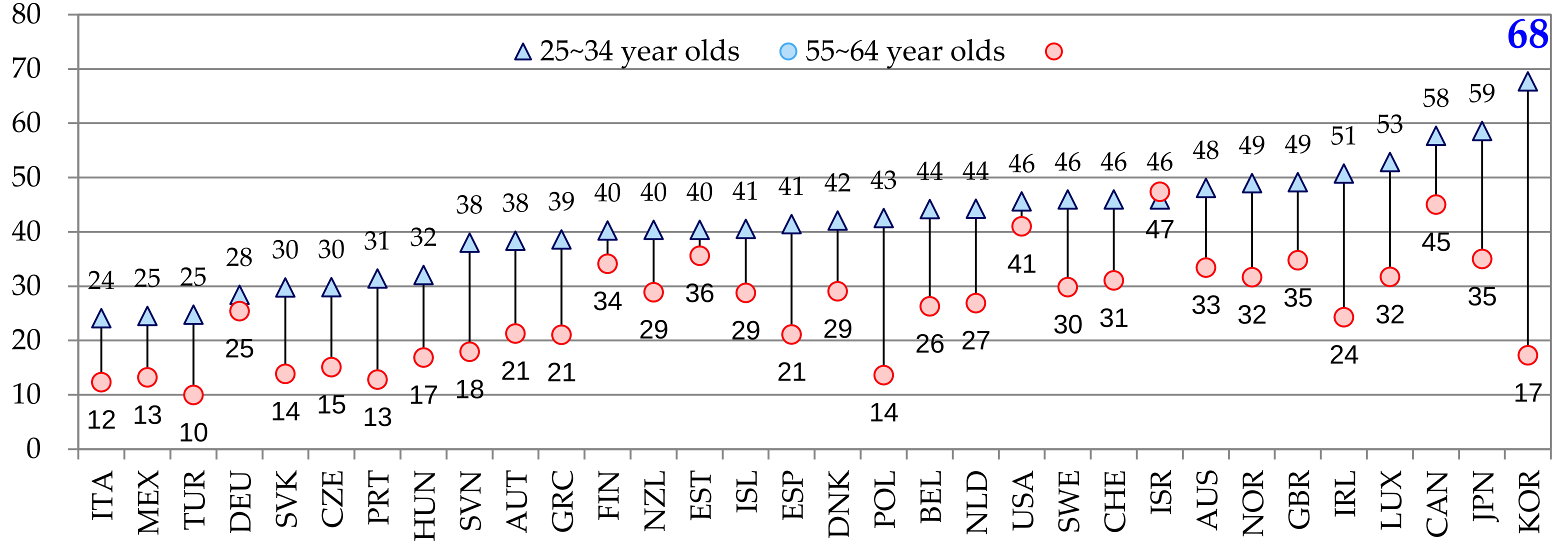
II. Key Drivers of Sustained Growth

Key Drivers of Sustained Growth

- Human capital: High investment in education, high quality workers and entrepreneurs
  - Population with tertiary education(2014)
    - 17%(55~64 year olds) vs 68%(25~34 year olds)

< Population with tertiary education >

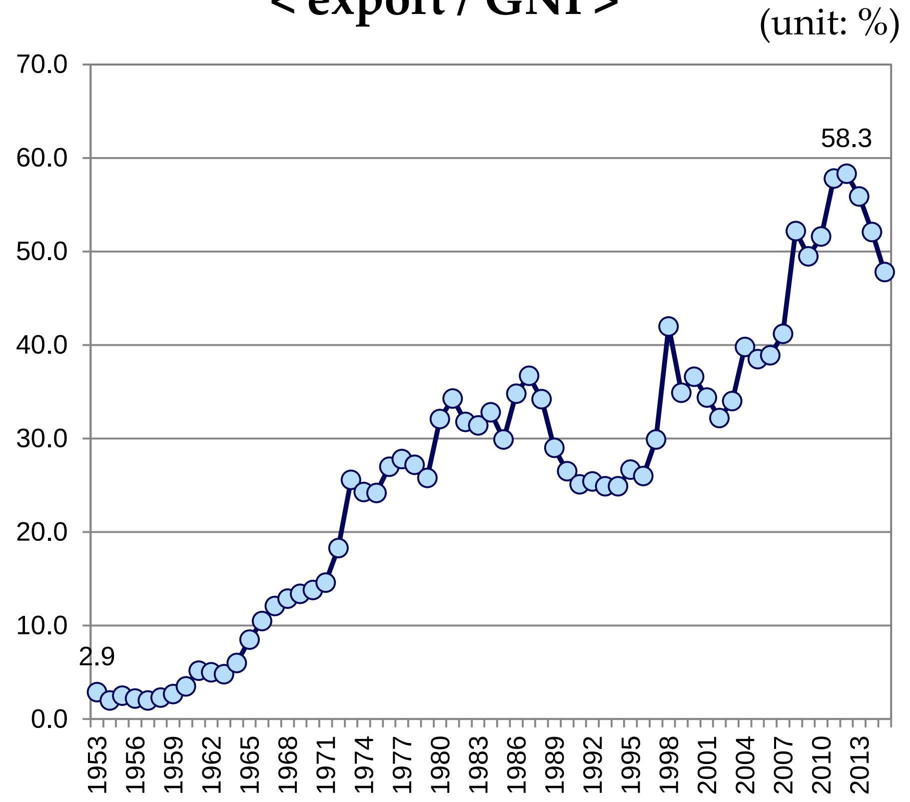
(unit: %)



Key Drivers of Sustained Growth

- Policy
  - Sound macroeconomic policies
  - Adoption of export-oriented, pro-growth policies
  - Responded rapidly and flexibly to external shocks
  - Some policies right, some wrong; learning through trial and error
  - Government intervention, ingredient for growth?
    - may differ at different stages of development
- Institution

< export / GNI >



Strong Top Leadership During the Development Period

- **Strong leadership commitment** to economic development
- **Monthly meetings presided by the President:** Economic Conditions Review Meetings, Meetings for Export Performance Monitoring
- **Strong support from think tanks** such as KIST and KDI
- **Partnership with big businesses (Korea, Inc.)**
  - Strong incentives provided while closely monitoring big businesses
  - Largely free from corruption and interest group pressures

Efficiency of Korea, Inc. in the Early Stage

- **Government:** coordination, monitoring, resource allocation

- **Large business groups:** implicit development partners

- **Conditions for success**

  - **Effective monitoring**: top leadership with vision and commitment; strong and relatively clean bureaucracy

  - **Strong incentives:** subsidized credit, etc.

  - **Sensible performance criteria:** export performance, etc.

Promotion of Exports and Industrialization: Export-Oriented Economic Takeoff in the 1960s

- Export incentives
  - Industry neutral: based on export performance
  - Exchange rate realignment
  - Credit & tax incentives, export-import link system, etc.

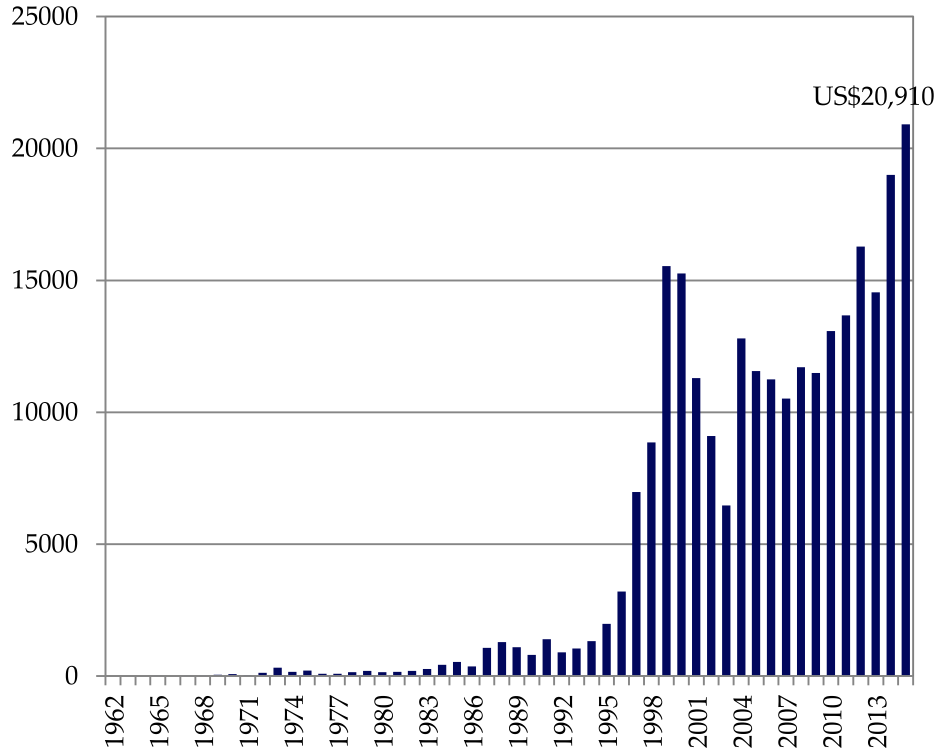
- Institutions for export promotion
  - Export-targeting; monthly meetings for monitoring
  - KOTRA
  - General trading companies
  - Free export zone

Foreign Direct Investment

- FDI playing only a minor role
  - Fear of foreign domination
  - Gradual liberalization since the 1980s
- Was it a good policy?
  - Missed chance of technology transfers and skills training
  - Too much dependence on borrowing caused a crisis
  - Borrowing cheaper than FDI?
  - Better for deepening local technological capabilities in the long run?

< FDI >

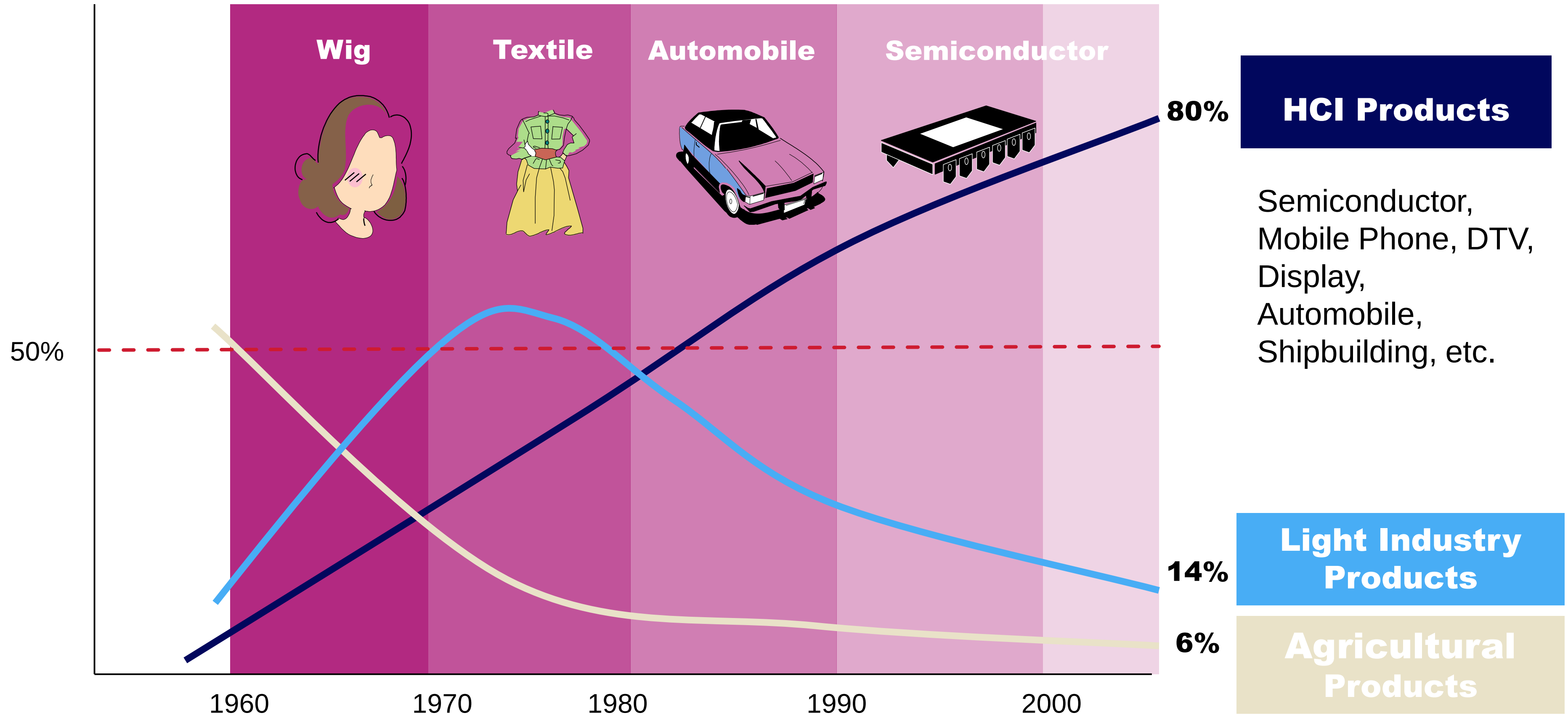
(unit: million USD)



Heavy and Chemical Industry (“HCI”) Drive in the 1970s

- Steel/shipbuilding/machinery/electronics/chemicals
- **Export/industrial structure upgraded**
- **Macroeconomic policy distortions**
  - Interest rate control; significant preferential credit -> financial development delayed; inflationary pressure
  - Currency appreciation (due to increased repayment burden on foreign debt)
- **Inefficiency:** excessive/duplicative investment; lack of technology & skills; import protection, etc.
- **Concentration of economic power**

Changing Export Structure:
From Agriculture to Light Industry, and to HCI



Challenges of 2nd-Stage Import Substitution

- **Constraints on capital, technology & skills**
- **Small domestic market** -> not merely import substitution, but to grow as export industries
- **Harder to identify** the industries to be promoted
- **Concentration of economic power;** monopolistic profits & corruption <- import protection
- **Macroeconomic instability**

Price Stabilization in the Early 1980s

- Difficult to rely entirely on **demand management** (tight fiscal & monetary policies) in recession

- **Incomes policy** may be effective under some circumstances
  - **Credibility/consistency** of the government policies
  - Public economic education
  - **Tools:** unofficial wage guideline through low salary increase for civil servants

Business Groups: Their Roles and Issues

- **Development partners of the government:** capturing policy-induced profit opportunities
- **National champions in the global market:** undertaking long-term, risky R&D investment
- **Seeking family and/or controlling shareholders' interests first?**
  - Cross-shareholding, poor corporate governance
  - Extensive diversification and internal transactions
  - High dependence on debt; overinvestment
  - Poor profitability (for smaller groups)

III. Foreign Exchange (“FX”) Crisis of 1997

FX Crisis of 1997: Causes

- **Weak financial and corporate sectors** due to continued government-bank-chaebol tie-up:
  - Moral hazard; poor governance; accumulated non-performing loans
- **Poorly managed (external) financial liberalization:** prudential regulation; financial safeguards, etc.
- **Poor management of the external sector**
  - Small FX reserves; high short-term debt
  - Currency appreciation due to capital inflows

Post-Crisis Reform

- **Financial reform**
  - Restructuring non-viable financial institutions
  - Strengthening prudential regulation/supervision
- **Corporate restructuring**
  - Legal frameworks & practical methods of workout
  - Reform of corporate governance
- **Strengthening social safety nets** while redressing labor market rigidity

Comparison: Pre- and Post-Crisis Period

- Pre-crisis period of 1990-1997:
  Chronic overcapacity problems
  - 8-year long trade deficits
  - FDI inflows were insignificant
  - Vulnerable external position
  - Explosive corporate debt growth
  - Weak financial sector

- Post-crisis period since 1998:
  Structural improvements
  - Continued current a/c surplus
  - FDI inflows increased ten times
  - Much improved external position
  - Significant de-leveraging trend
  - Sound and efficient financial sector

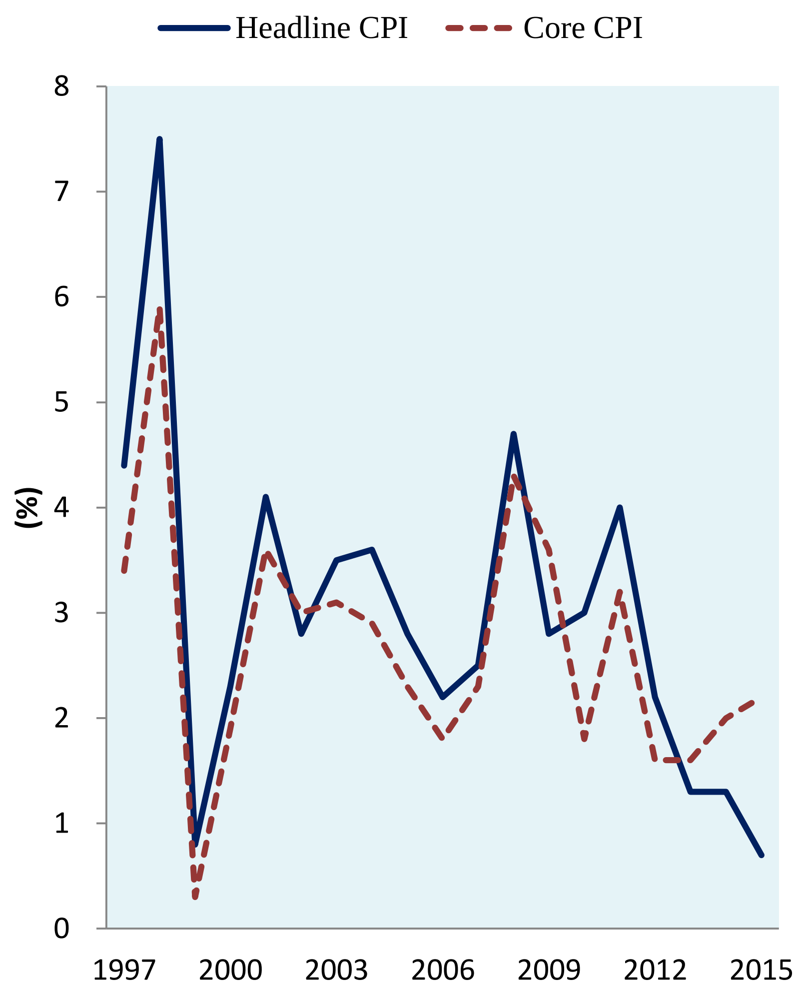
IV. Current Status of Korean Economy

Real Sector: Korea's economic fundamentals remain robust

Korea achieved a solid growth post-crisis.

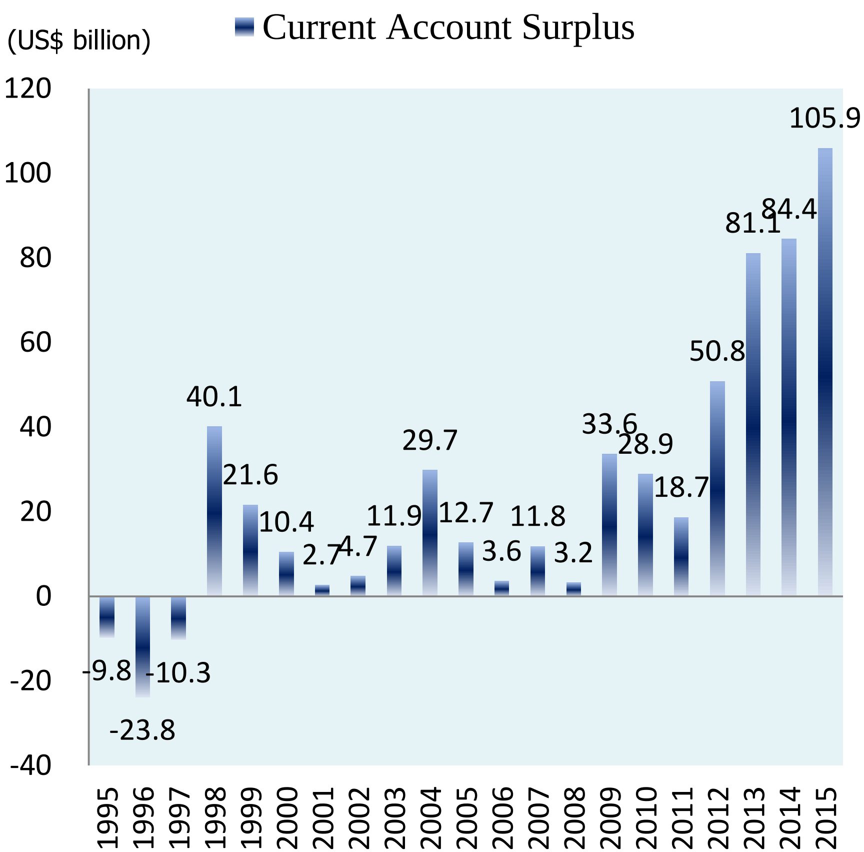
GDP Growth % YOY	1997	1998	1999	2000	2011	2012	2013	2014	2015 (f)
US	4.4	4.3	4.1	3.8	1.6	2.2	1.5	2.4	2.4
Japan	1.8	-1.1	0.7	2.8	-0.5	1.7	1.4	0.0	0.5
Hong Kong	5.1	-5.0	3.4	10.2	4.8	1.7	3.1	2.6	2.4
Singapore	8.5	-0.9	6.4	9.4	6.2	3.7	4.7	3.3	2.0
South Korea	**5.0**	**-6.7**	**10.9**	**9.3**	**3.7**	**2.3**	**2.9**	**3.3**	**2.6**
Taiwan	6.7	4.6	5.4	5.9	3.8	2.1	2.2	3.9	0.7
India	5.0	6.9	6.0	4.0	6.6	5.6	6.6	7.2	7.3
China	8.8	7.8	7.1	8.0	9.5	7.7	7.7	7.3	6.9
EU	2.5	2.9	2.8	3.4	1.8	-0.4	0.3	1.4	2.0
G7	3.2	2.7	3.0	3.5	1.6	1.4	1.2	1.7	1.8
Latin America	5.3	2.0	-0.1	4.0	4.9	3.2	3.0	1.3	-0.1
OECD	3.6	2.7	3.1	3.9	1.9	1.3	1.3	1.9	2.2
World	**4.2**	**2.8**	**3.5**	**4.4**	**4.2**	**3.5**	**3.3**	**3.4**	**3.1**

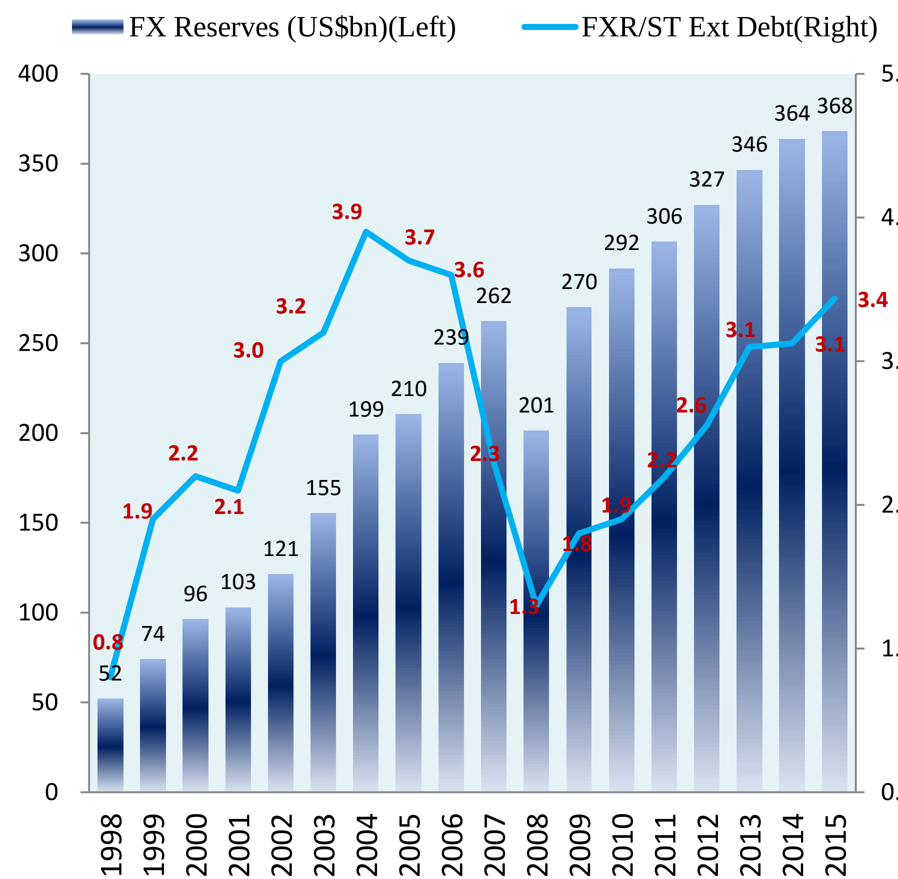
Core inflation remains stable.



External Sector: Strong Balance Supports Korea's Stability

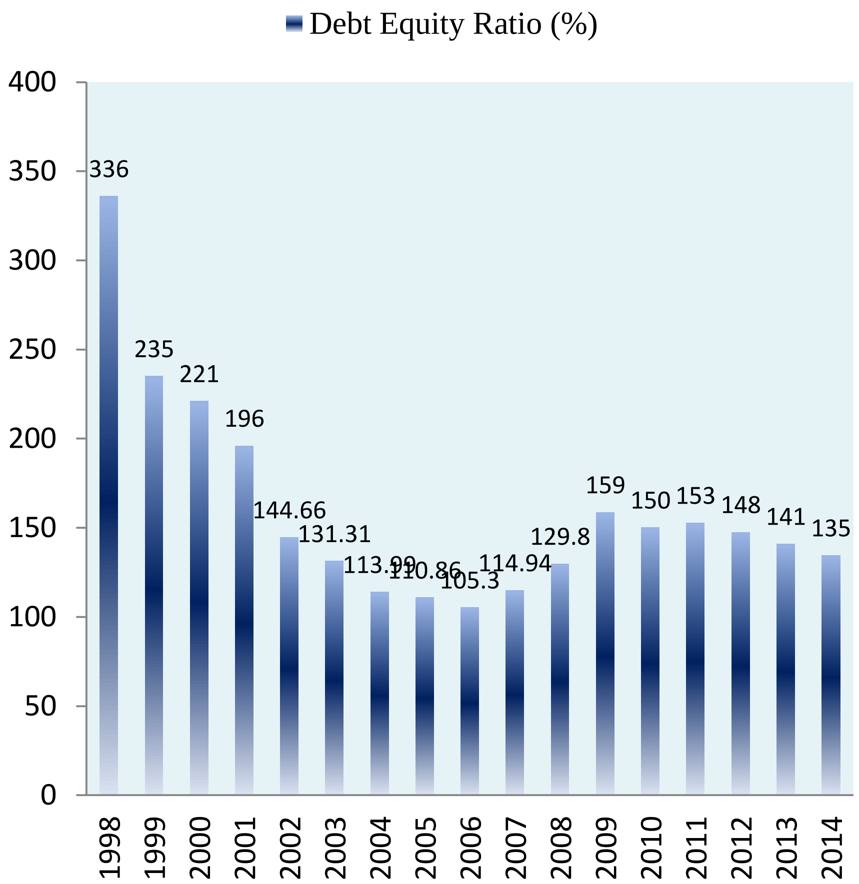
- The current account surpluses continued since 1998 and hit record high at 105.9 billion US$ in 2015.
- This enabled Korea's FX reserves to rise from 4 billion US$ in 1997 to 368 billion US$ in 2015, the 7th largest in the world.

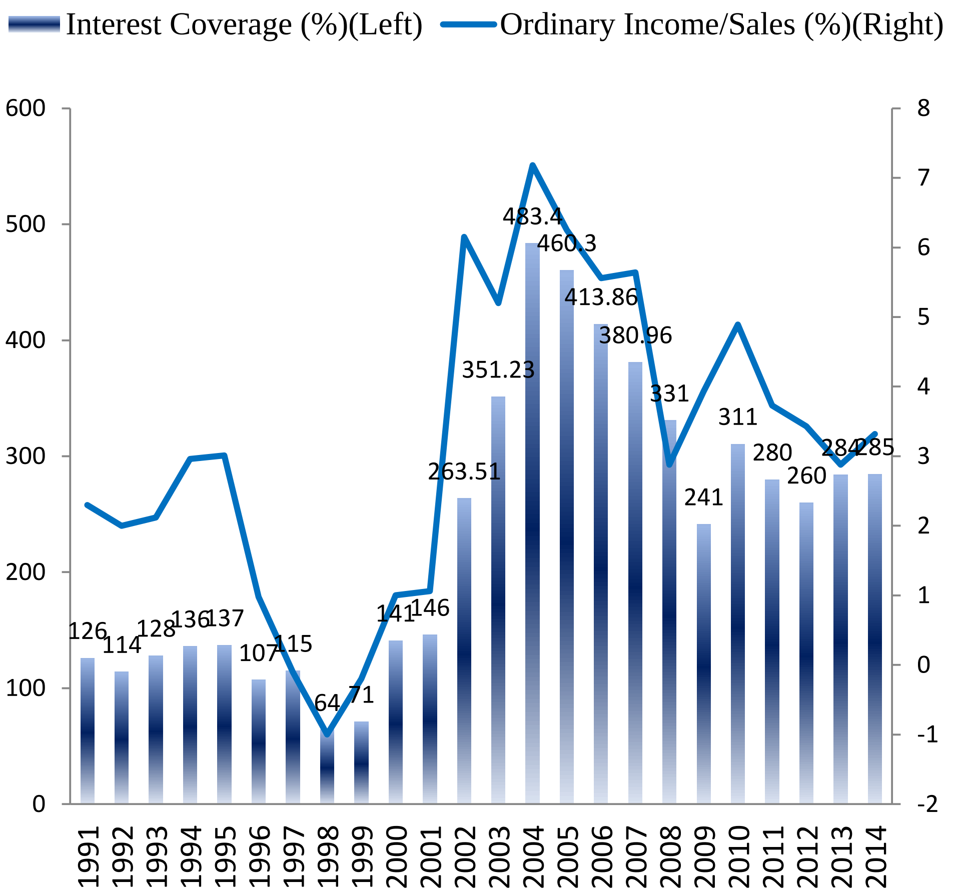




Corporate Sector: Sharp De-leveraging, Improved Profitability

Debt-equity ratios dramatically declined and corporate profitability has significantly improved.



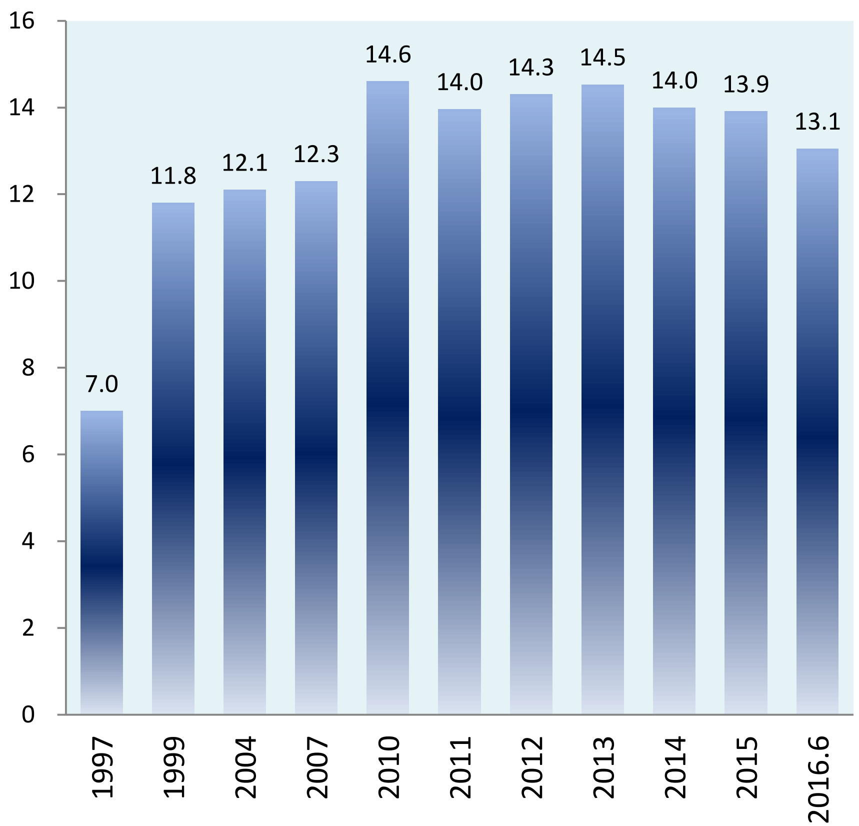


Note: Corporate ordinary income/sales trend is only available until 2006

Financial Sector: Restored Soundness

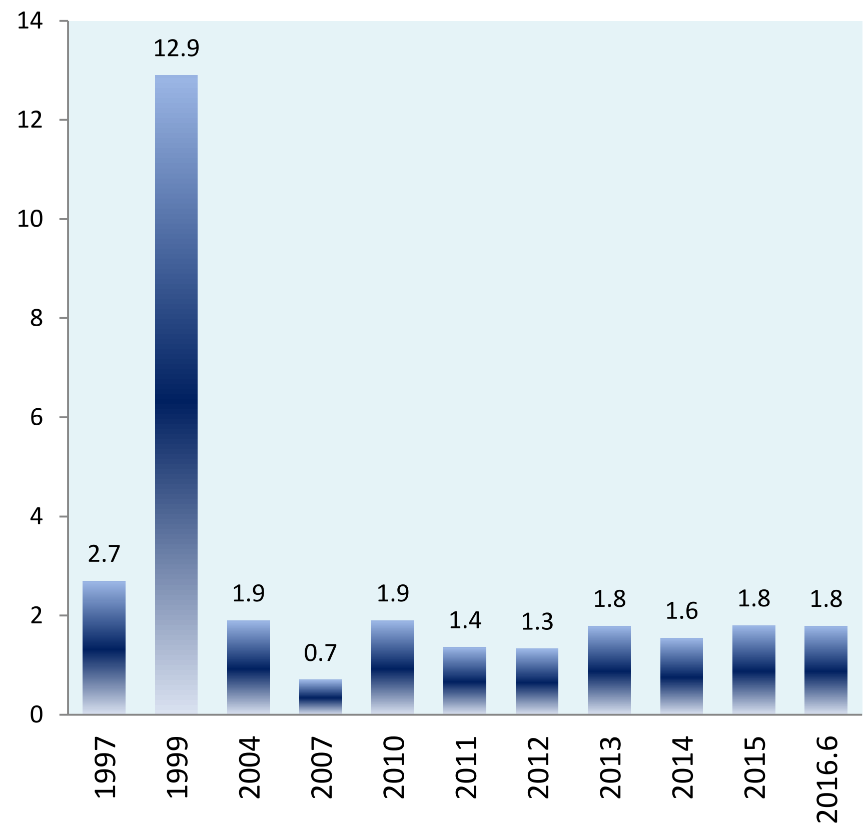
BIS ratios increased to the international standard and **NPL ratios** substantially lowered

BIS Ratio (%)



Source: FISIS

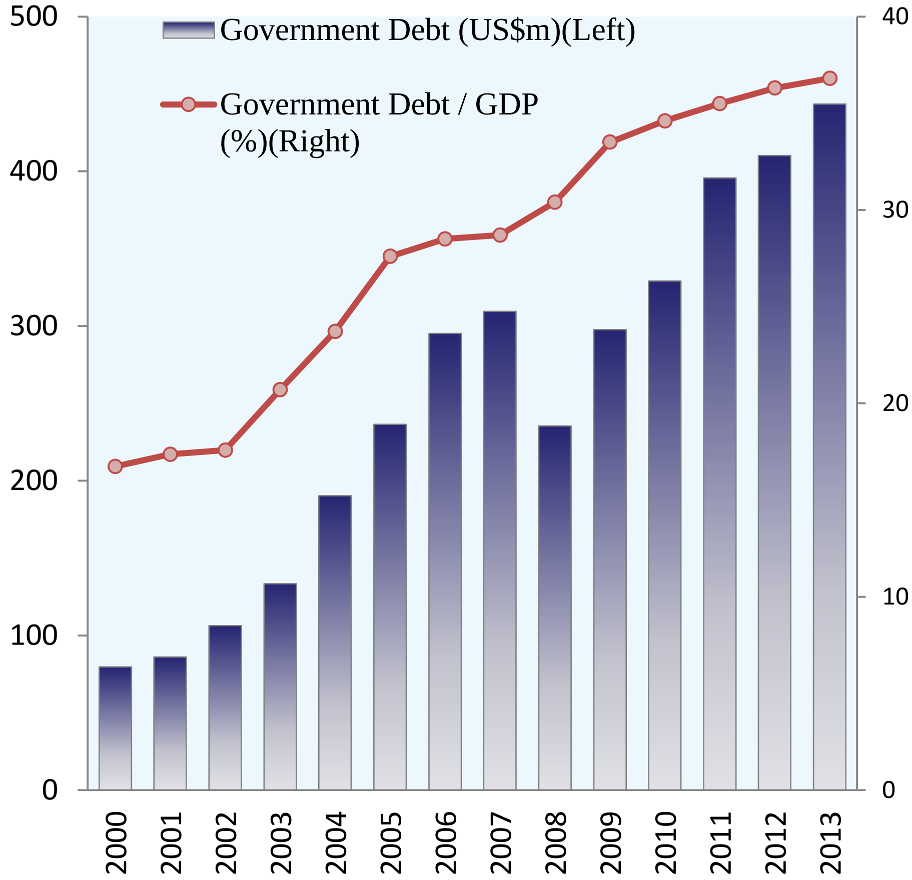
NPL Ratio (%)

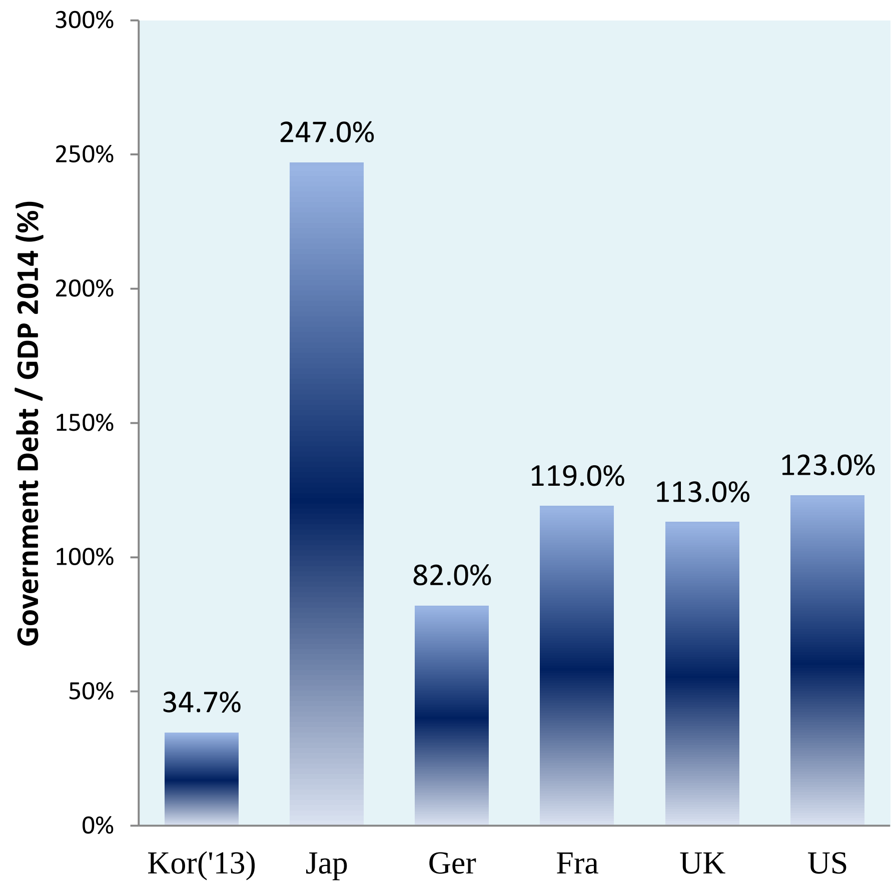


Source: FISIS

Fiscal Sector: Low Indebtedness

Government debt increased substantially in the process of the crisis resolution, but stands at a low level at an international standard

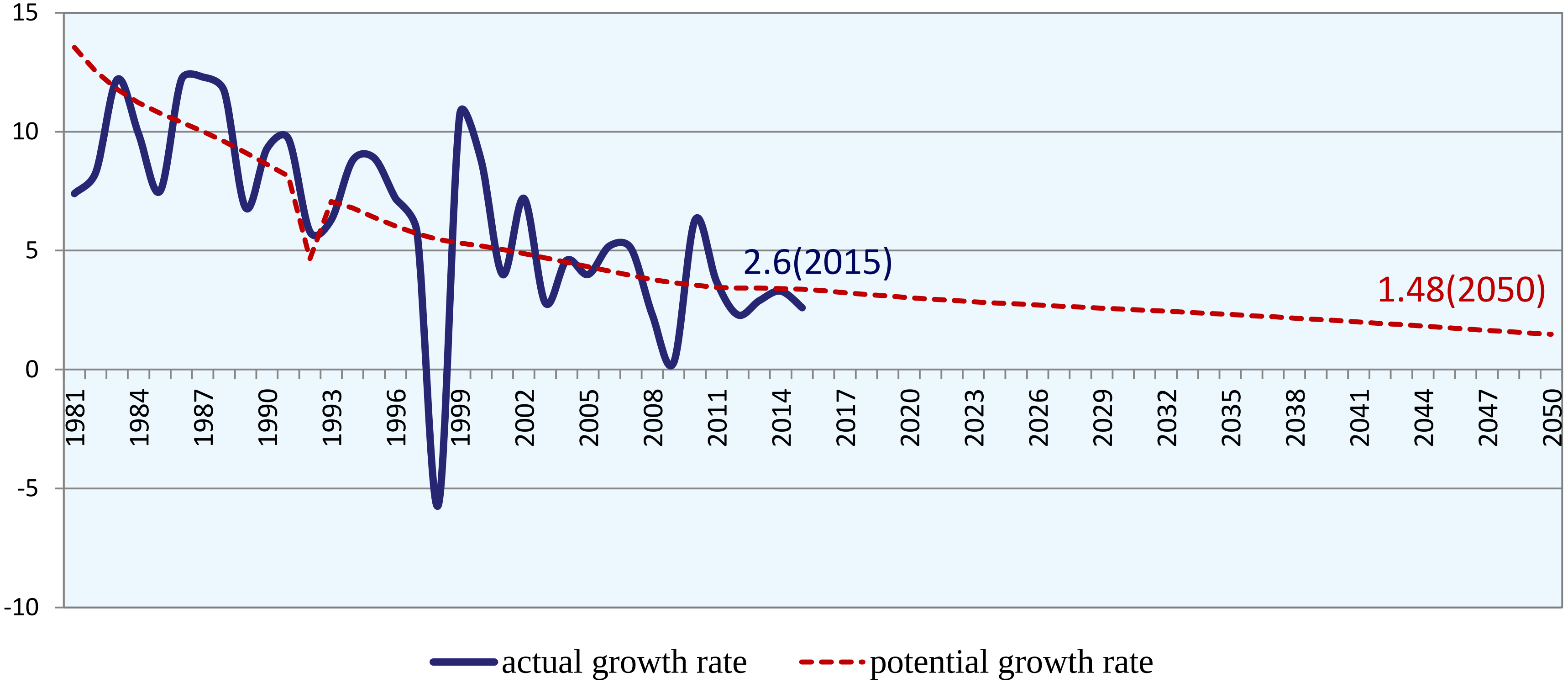




V. Future Challenges

Future Challenges

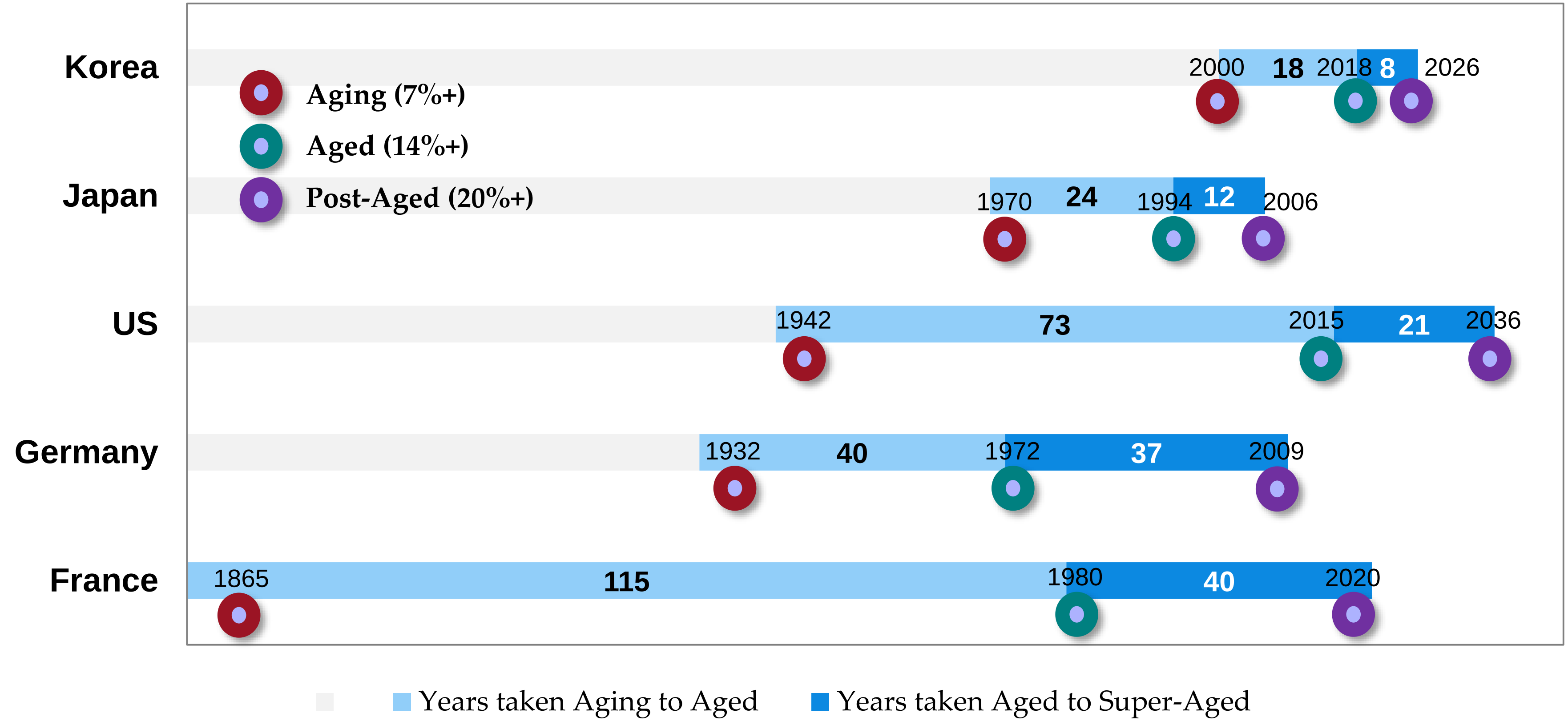
- Our potential growth is slowing down very fast, and expected to continue to fall unless we do something.



Source: OECD

Future Challenges

■ Low Birth Rate and Aging Society (Silver Tsunami)



Source: Korea Statistics Bureau

Future Challenges

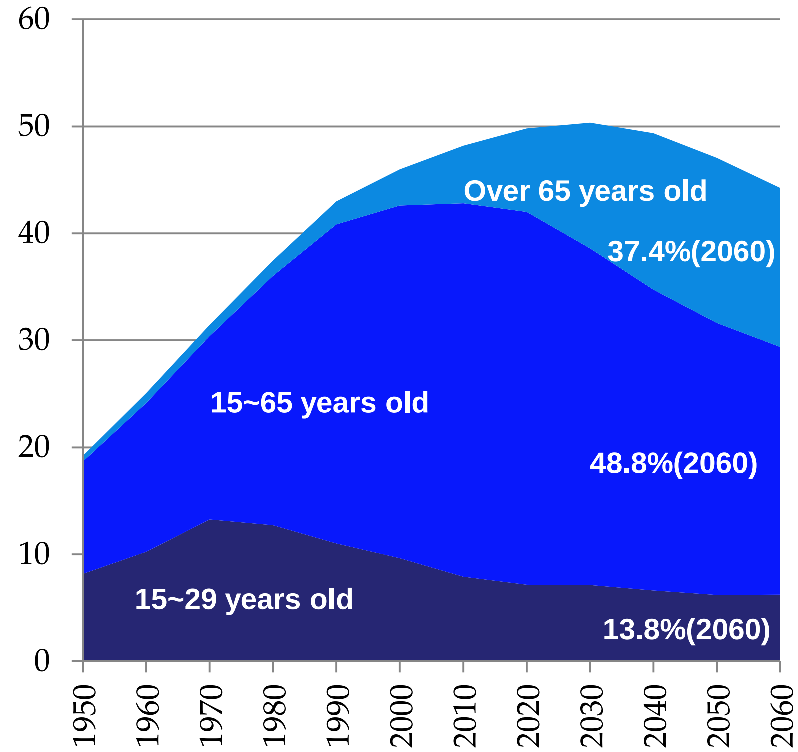
- Low Birth Rate and Aging Society (Silver Tsunami)

Number of Active Persons Supporting One Old Person

1970	17.5
1980	16.4
1990	13.5
2000	9.9
2010	6.7
2020	4.6
2030	2.7
2050	1.4

Source: Korea Statistics Bureau

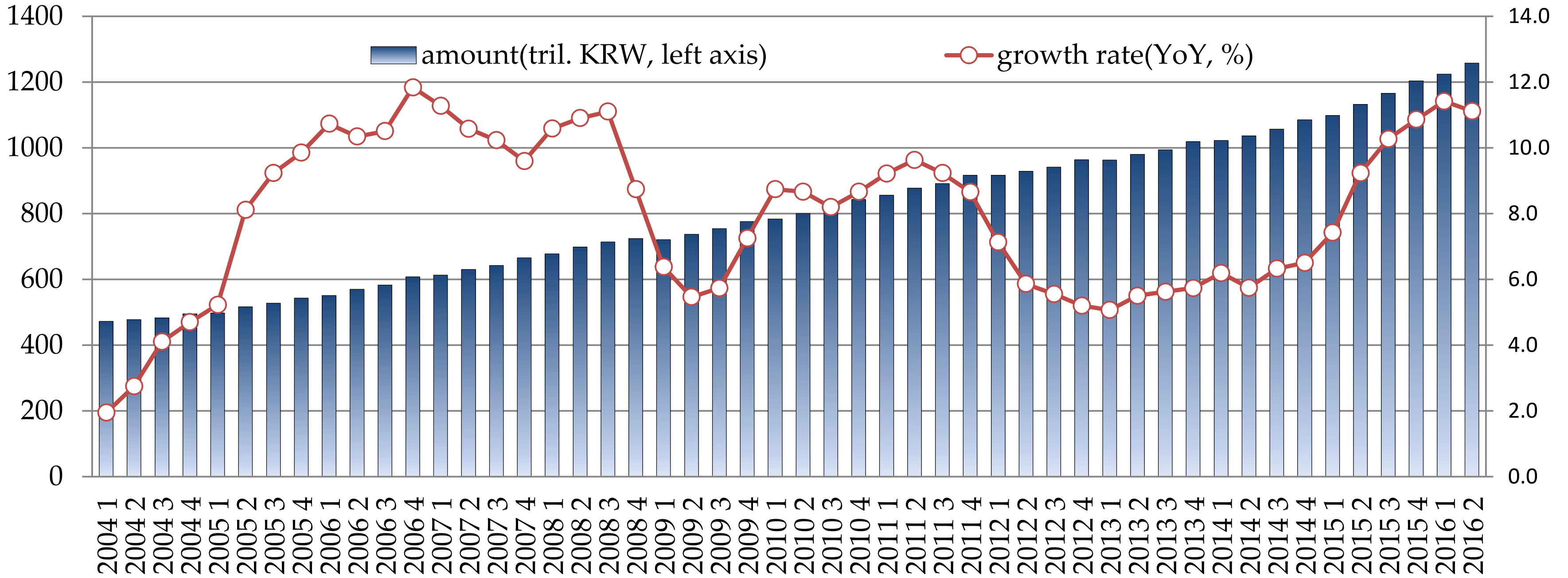
Population Composition



Future Challenges

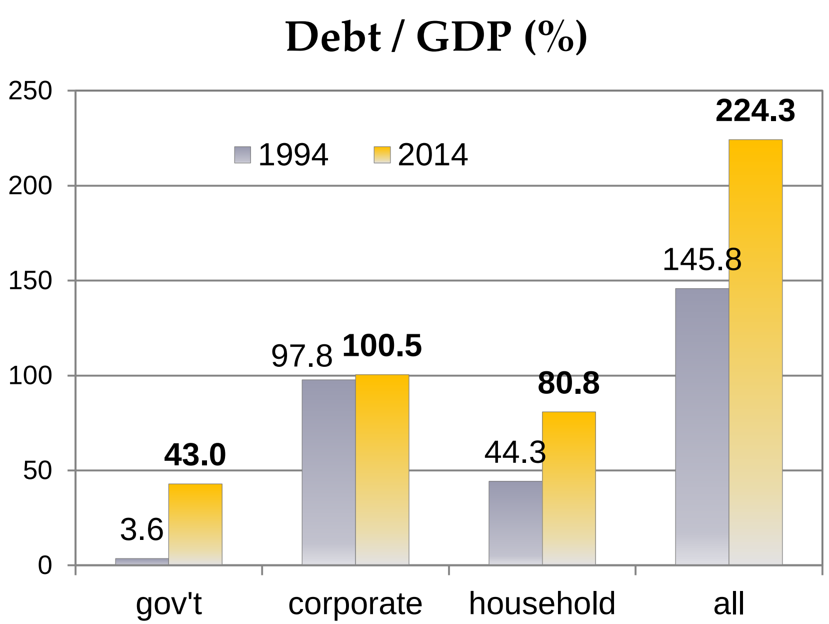
- Household Debt Burden

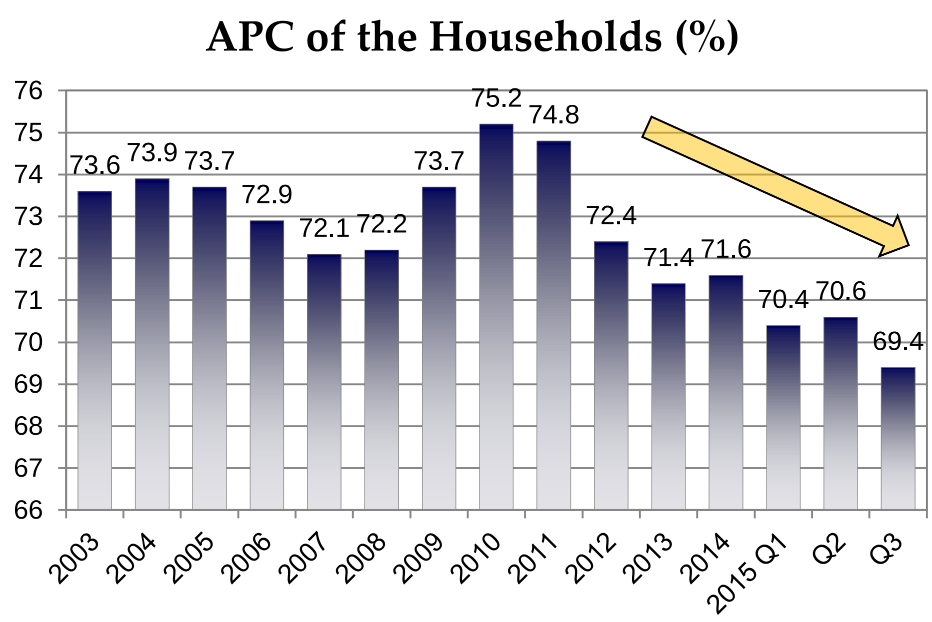
- Aggregate Household Debt in 2015 = ₩1203 trillion = $973 billion
- Household Debt / GDP Ratio (2015) = 77%
  - 85% (Spain), 61% (Greece)



Future Challenges

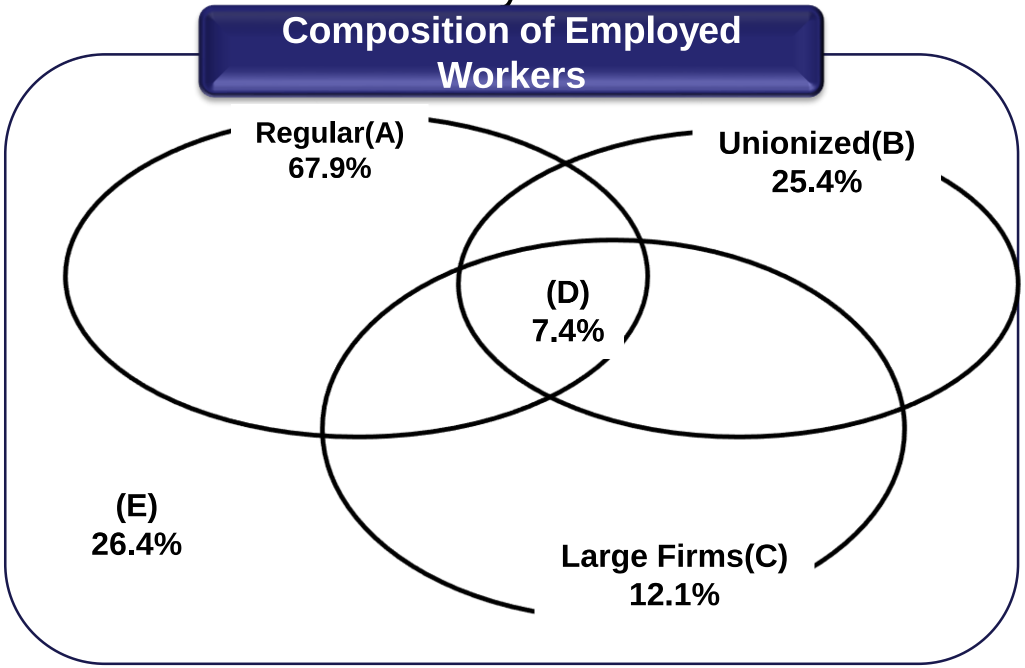
- Increasing household debt causes domestic demand to shrink
  - Household debt / GDP : 44.3%(1996) → 80.8%(2014)
  - Average Propensity to Consume in 2015 3Q was record low

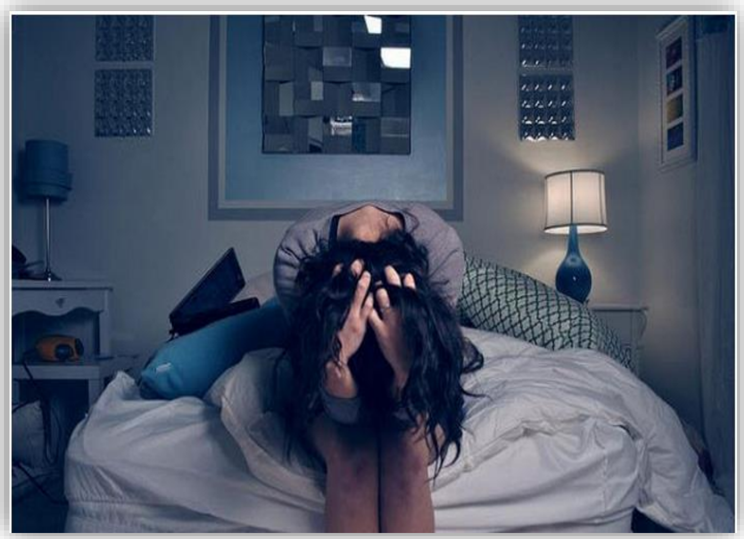




Future Challenges

- Dual Labor Market, Inflexible Labor Union, and Absence of Social Dialogue
  - Youth unemployment: UR 12.5% (2.6 times of aggregate UR)
  - PT work, Discouraged young workers, Youth Labor Under-utilization 23.4%
  - Group (D) (1.4 million workers) controls the whole labor market of 26 million workers → They refuse labor market reform to maintain their vested interests.

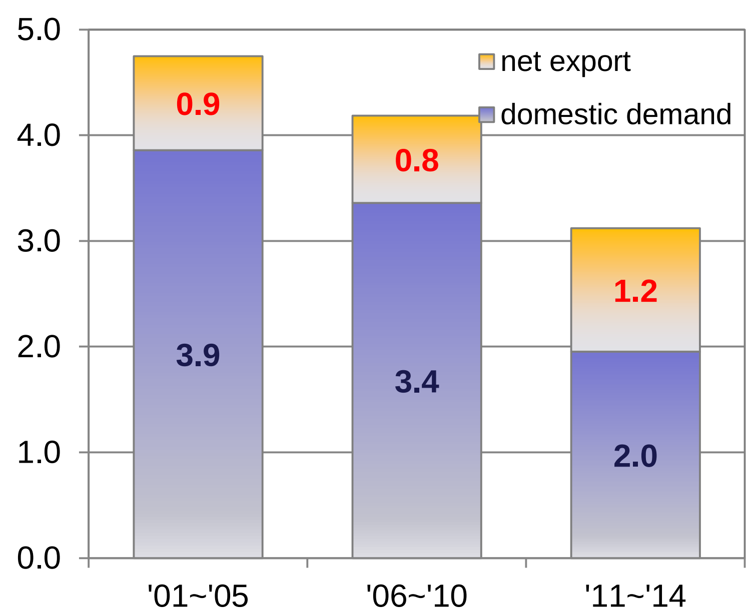




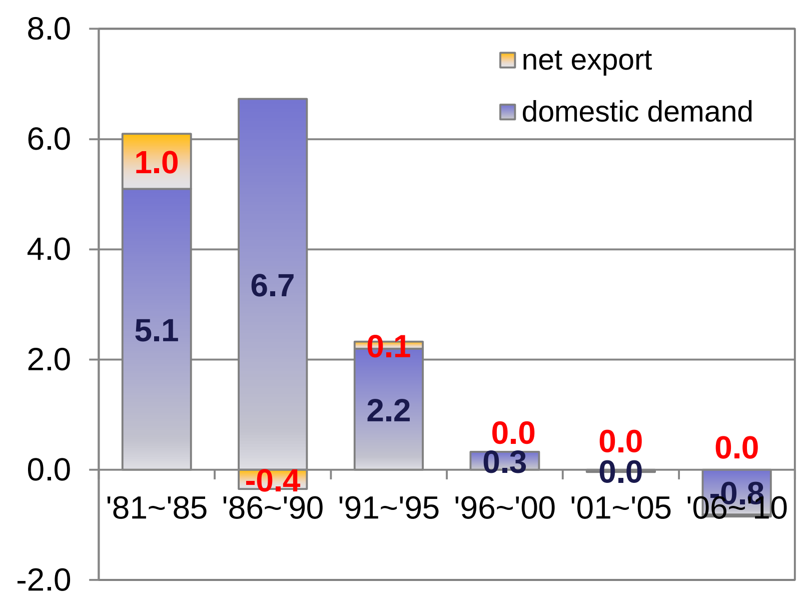
Future Challenges

- Possibility of secular stagnation (Japanese style)
  - Aging society, Housing market slump → shrinking domestic demand

<Korea>



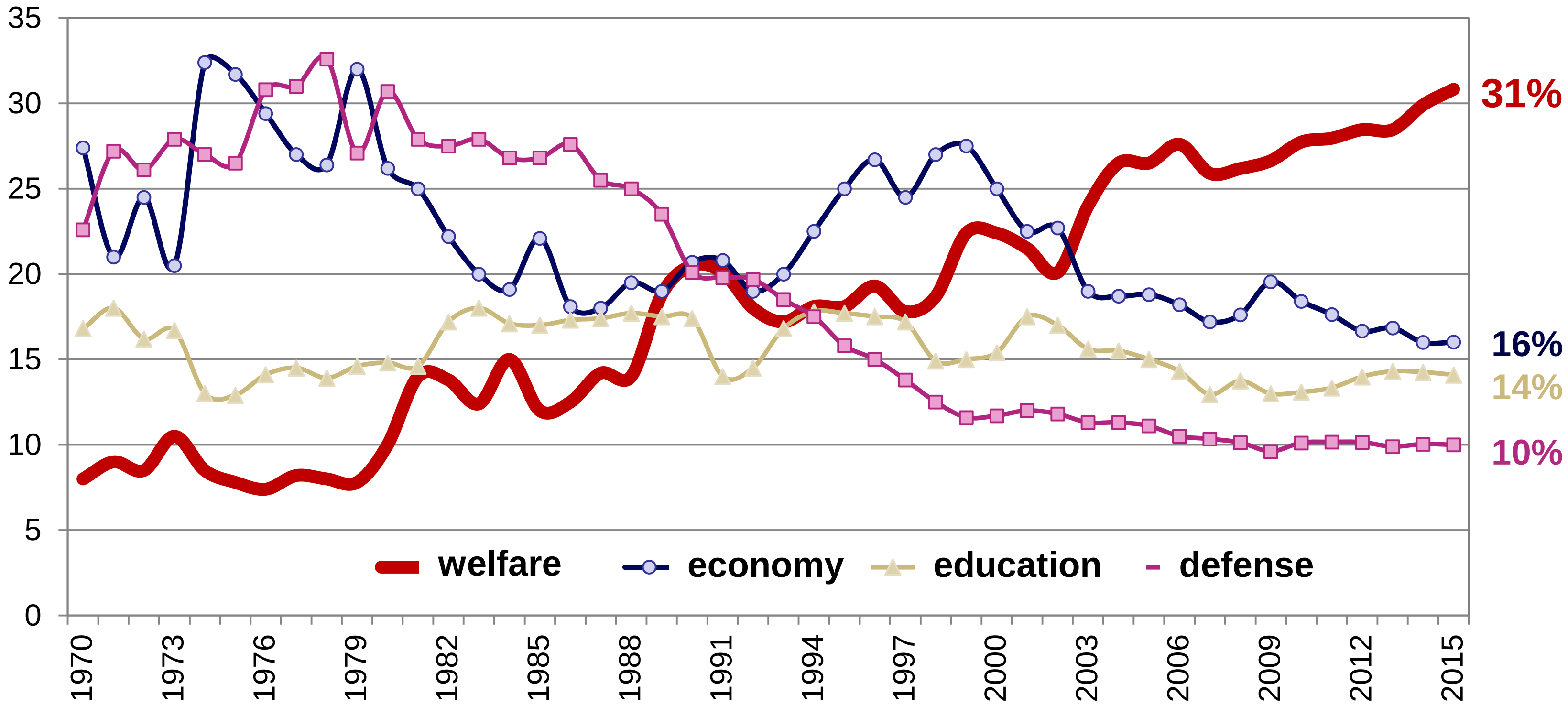
<Japan>



Future Challenges

- Superabundant Demand for Welfare

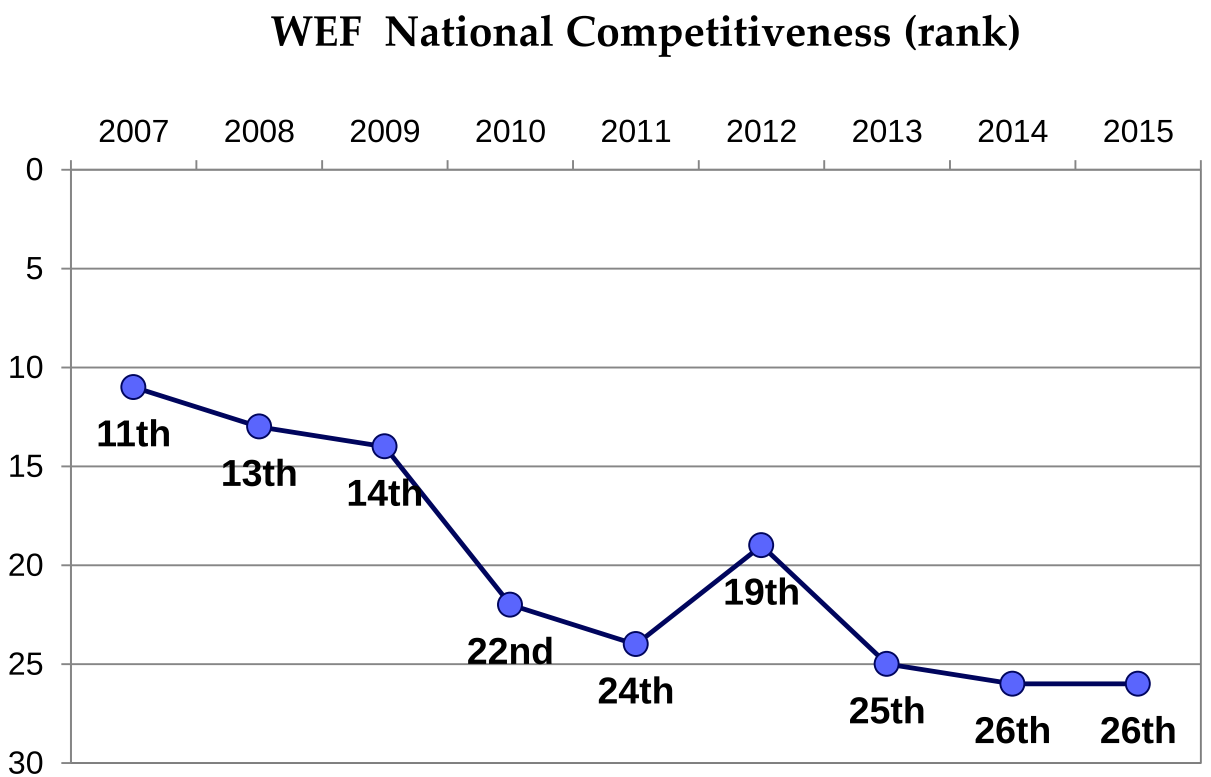
% of Main Expenditures in Consolidated Finance



Source: JK Hyun(2012)

Future Challenges

- Weakened National Competitiveness



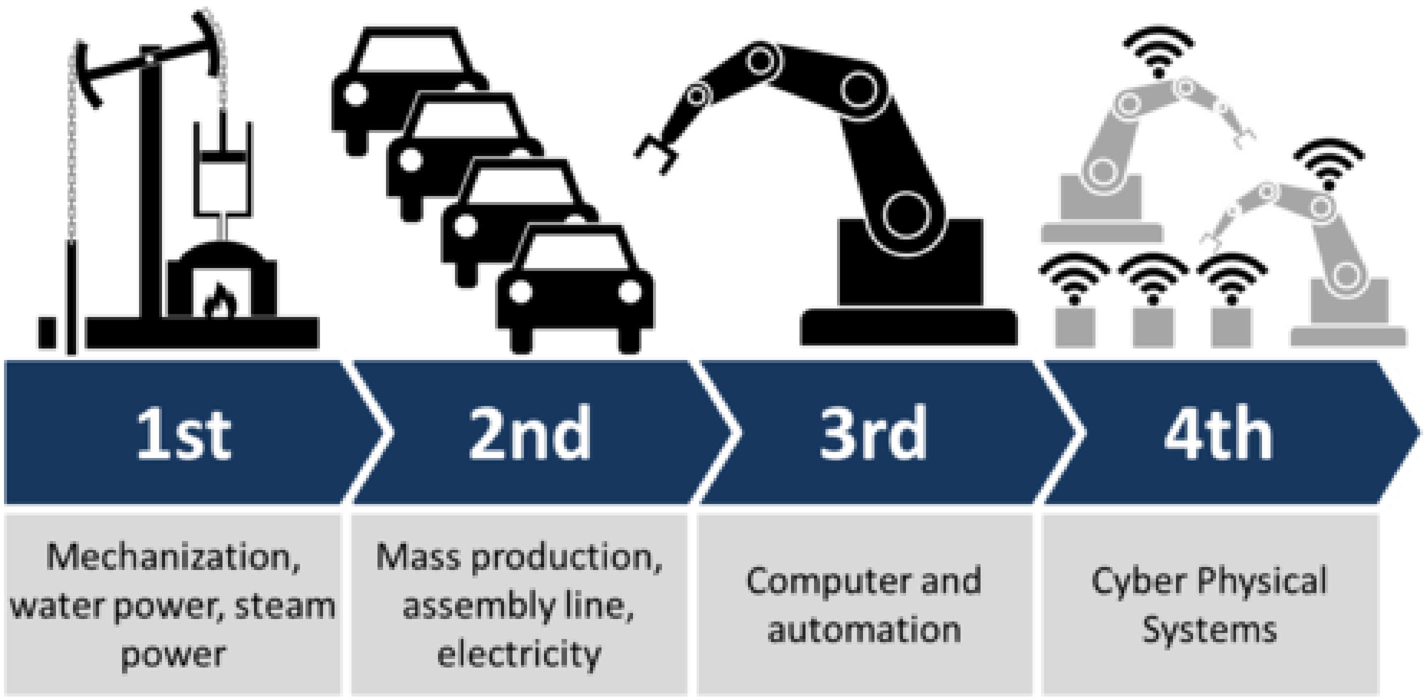
VI. Opportunities Ahead

Opportunities Ahead

- Thus, we need to strengthen growth potentials by
  - Fostering business-friendly environment to successfully
    - transform HCI to high value-added manufacturing (ICT)
    - discover new engine of growth in IT, BT, NT
    - and develop high value added service industries
  - Enhancing labor market flexibility and social mobility

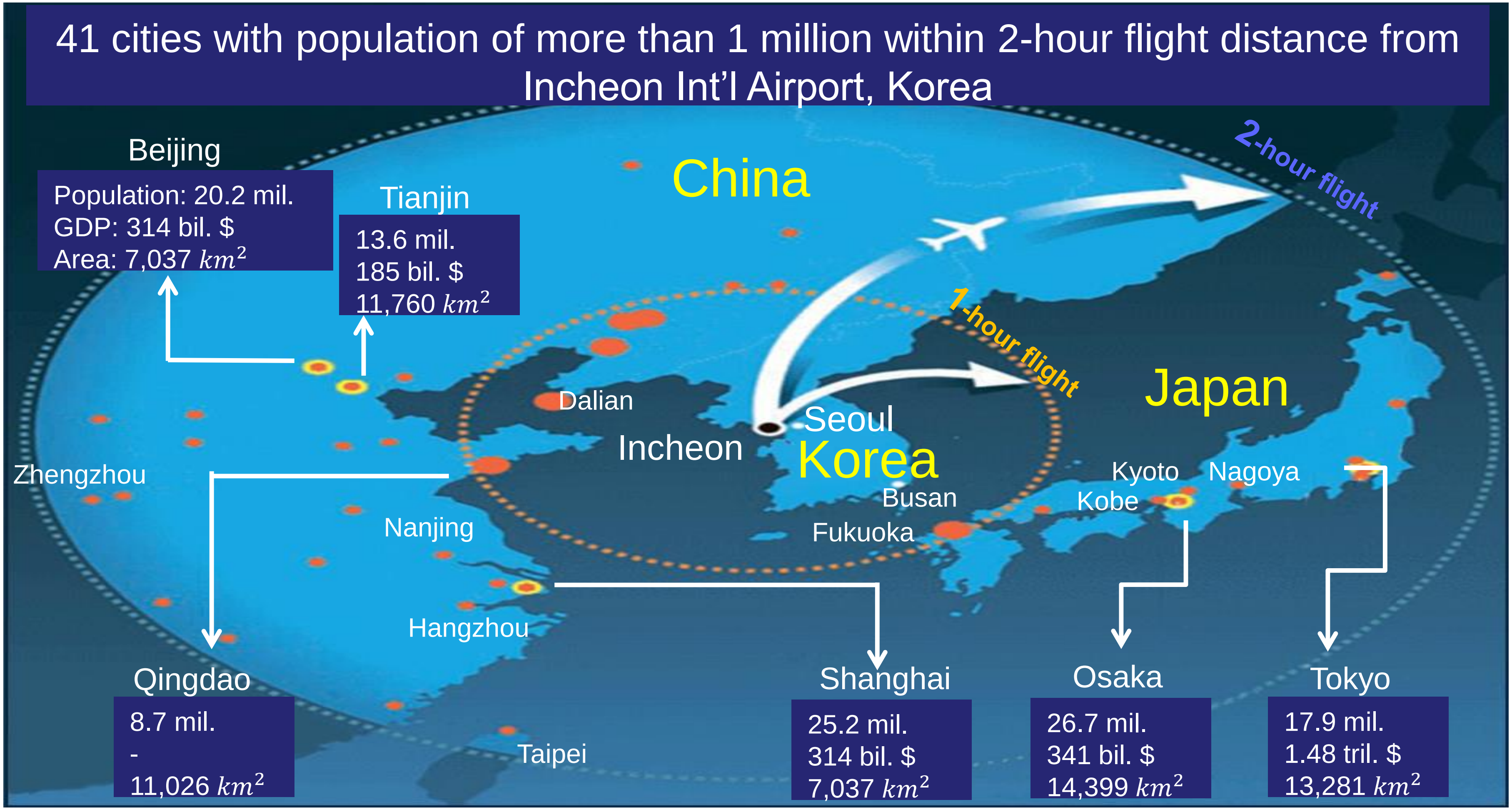
Opportunities Ahead

- We need more than simple manufacturing
  - Smart Factory, IoT
  - IT, BT, NT



Opportunities Ahead

- Service industry will be a source of another Economic Big Bang for Korea.



Opportunities Ahead

- De-regulation of service industry will be a new source of job and value-added creation
  - Deregulation will create about 350 thousand jobs in medical, education, law and contents service sectors in 8 years.

< Effect of Service Industry Deregulation >

	Value-added (billion USD)	Job creation (person)
Education	3.6	93,000
Medical	4.4	104,000
Law	2.7	43,000
Contents	4.5	108,000
total	15.2	349,000

Source: “Service Industry Deregulation and Job Creation” KERI(2013)

Thank You