South Korea

"Reviving the Miracle of the Han river"

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Executive Summary

History	• South Korea's economic history has been **achieved steep growth** over the last half century. This progress has been **fueled by strong TFP growth and increased capital deepening** • Adopting the **adequate policies** has enabled Korea **to successfully exit all crisis** situations the country has faced
Current Situation	• **Even if Korea is** currently **15th in the world by Nominal GDP** and a **very developed economy**, **some issues need to be addressed to ensure long-term growth**: high cost of debt, low fertility levels, household cash-flow constraints, low productivity in SMEs, and lagging services sector to name a few
Proposed measures	• We believe that **a new growth model** needs to be defined focusing on **achieving financial health for middle income families**. Suggested measures include: - **Banking reform** focused on reducing cost of debt for families - Increase **social investment** to boost fertility and access of women to workforce (with the required tax reform) - **Policies promoting SMEs** to allow them to grow and become more productive in their support of the middle class

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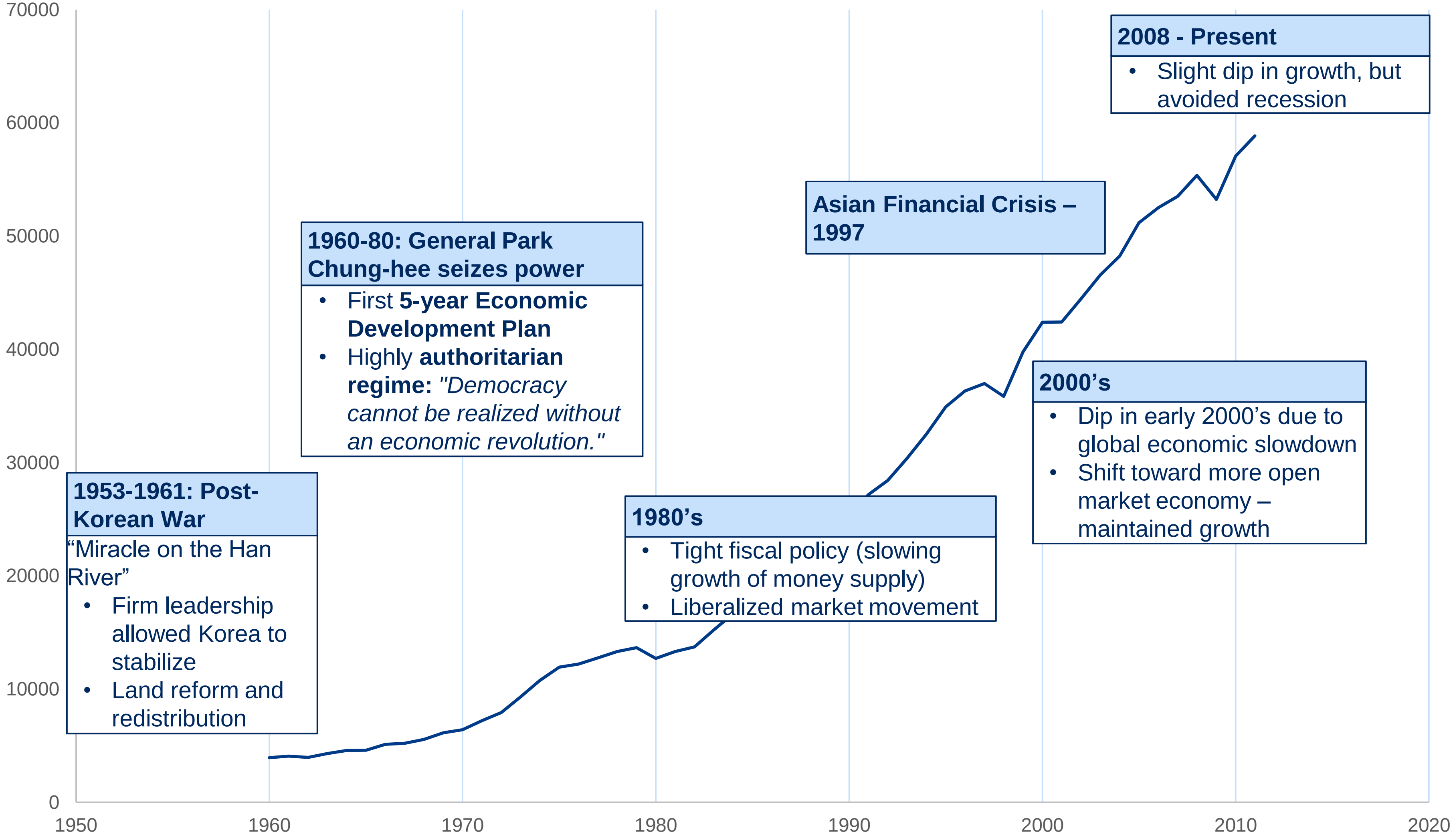
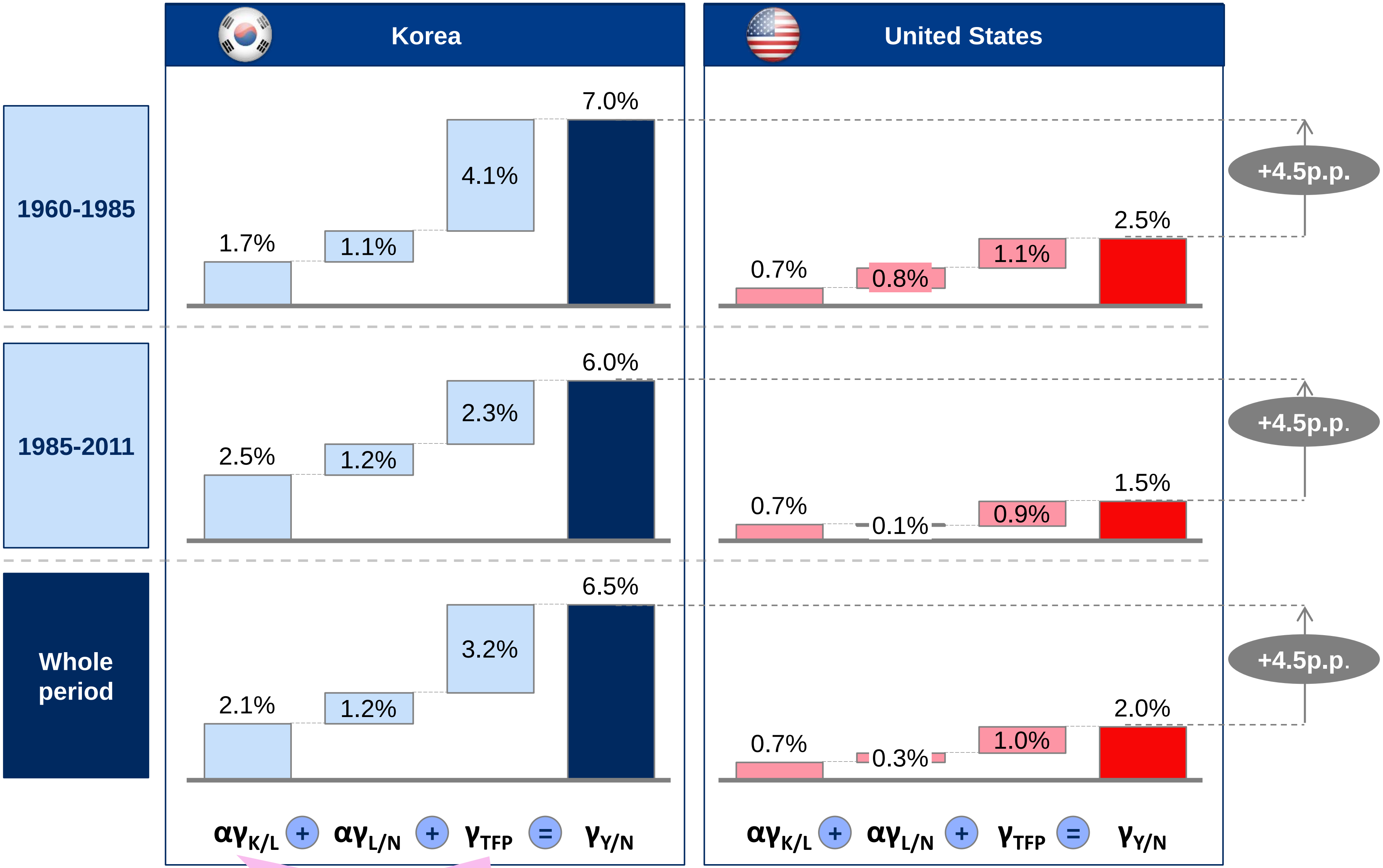
South Korean Output Per Worker has increased at an incredible pace over the last half century; fueled by a series of measures

Y/L evolution over time



SOURCE: Team Analysis; World Bank; Wikipedia

Growth decomposition shows an important contribution from TFP and capital per worker to the overall growth in all the periods analyzed



Main growth contributors

SOURCE: Team Analysis; World Bank

TFP and Capital per worker growth was fueled by a series of policies that enabled the country to sustain high levels of growth

	Key policies	Effect on variable
γ_{TFP}	• **Reduced Government intervention** (early 1980s) • Liberalized **foreign investment**	• Promote competition: **innovation and productivity** –GDP/ hour-worked x3 in around 20 years
	• Expand **investments in public projects** (early 1980s)	• **Reduce imbalance** between rural and urban sectors (previously caused by industrialization)
	• Post 1997 **labor adjustments** • **Bank privatization**, **restructuring of conglomerates** and a more **liberalized economy** (2002)	• **Contain financial problems and move towards recovery** through a dynamic and productive labor market
$\alpha\gamma_{K/L}$	• **Outward looking strategy** emphasizing industrial sector (1960s) - Labor intensive manufactured exports (competitive advantage)	• Great **inflow of foreign capital** investments - Allow facing poor natural resources, low saving rates and small domestic market - Pushed industrial sector revolution
	• Future production plans **shifted toward high-tech industries** (1990)	• Development of advanced industries to **sustain exports**
Total $\gamma_{Y/N}$	• **Inclusive economic strategy**	• Allowed to **benefit from significant improvements in the world economy** and globalization • Communication technology

SOURCE: Team Analysis; Wikipedia

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Korea currently needs to address a series of challenges: an increasingly stressed society directly linked to a stressed economic situation

☐ Deep dive

Good policies	Bad policies
• Good levels of **government debt and foreign exchange** levels	1 **Low social investment:** - Tax revenue equals 16% of GDP (world bank data) - Only 11% of total expenditure goes to Social Expending
• Spend 2.75% of GDP in **R&D** (e.g. Nationwide high-capacity broadband network -94% of population has high speed internet connection vs. 65% in USA)	• Around **4% of GDP spent in education** (Vs. more than 6% average for OECD countries) and **less than 1% of its educational budget in training programs** • **Bankruptcy Law** poses a **barrier for creative destruction** • **Rigid labor market**: ranks 94th among 140 countries, in ease to employ workers. One of the least flexible labor markets among industrialized economies
• **School System focused in results** and publicly available information • **Ranked 7th in the Economic Complexity Atlas**	2 **Fragile Savings Bank System** and weak mortgage and loan market. Short Tenor and 94% of loans have floating rates
• **KAFTA** (Korea-Australia Free Trade Agreement)	• **Manufacturing sectors are leading current GDP** growth but **employment is led by the services sector**

SOURCE: Team Analysis; Mckinsey reports; OECD; World Bank

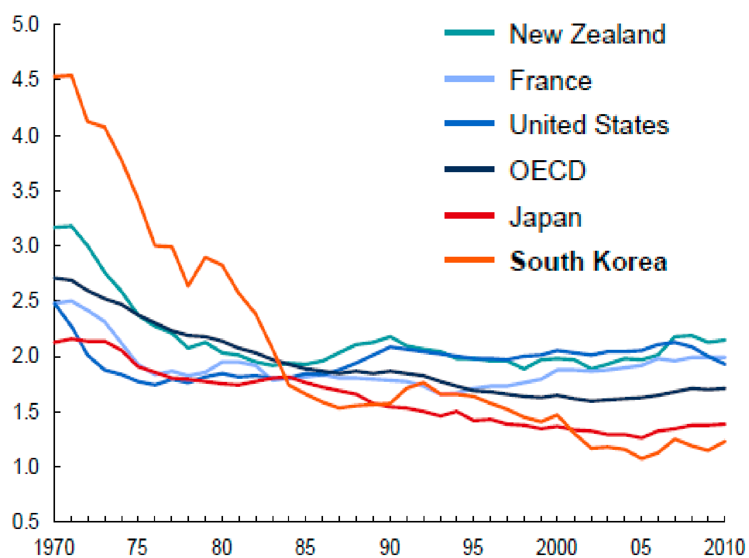
1 Low social investment generates a weak welfare network to support women to have kids and work at the same time (1/2)

Highly decreasing fertility rate

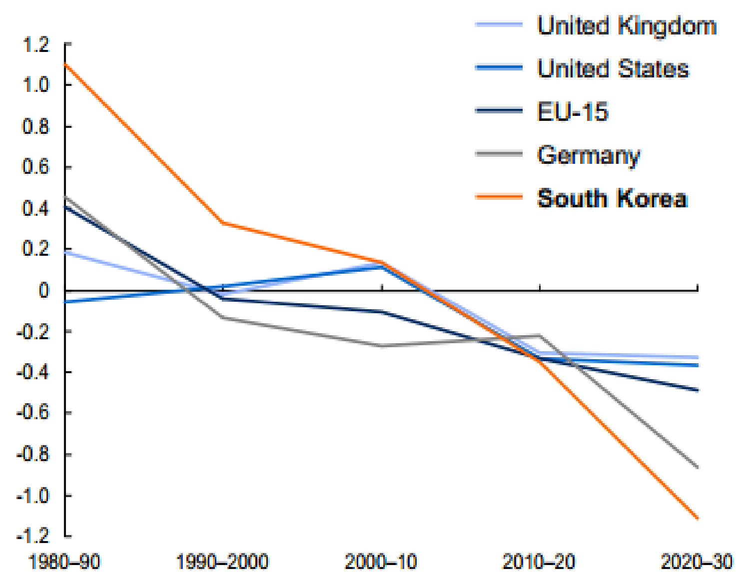
- **Fertility Rate** in south Korea is currently 1.2; **the lowest in OECD** countries
- **Fertility rate has fallen by two-thirds since the 1970s**
- Low fertility is starting to cause a problem with **aging population** and a **reduction in the working age population group**
- At this pace, Korea faces a big **rise in dependency rates** from aging population

Low women work force participation

Total fertility rate (%)



Growth in contribution of working-age population to GDP per capita (%)



SOURCE: Mckinsey reports; OECD; World Bank

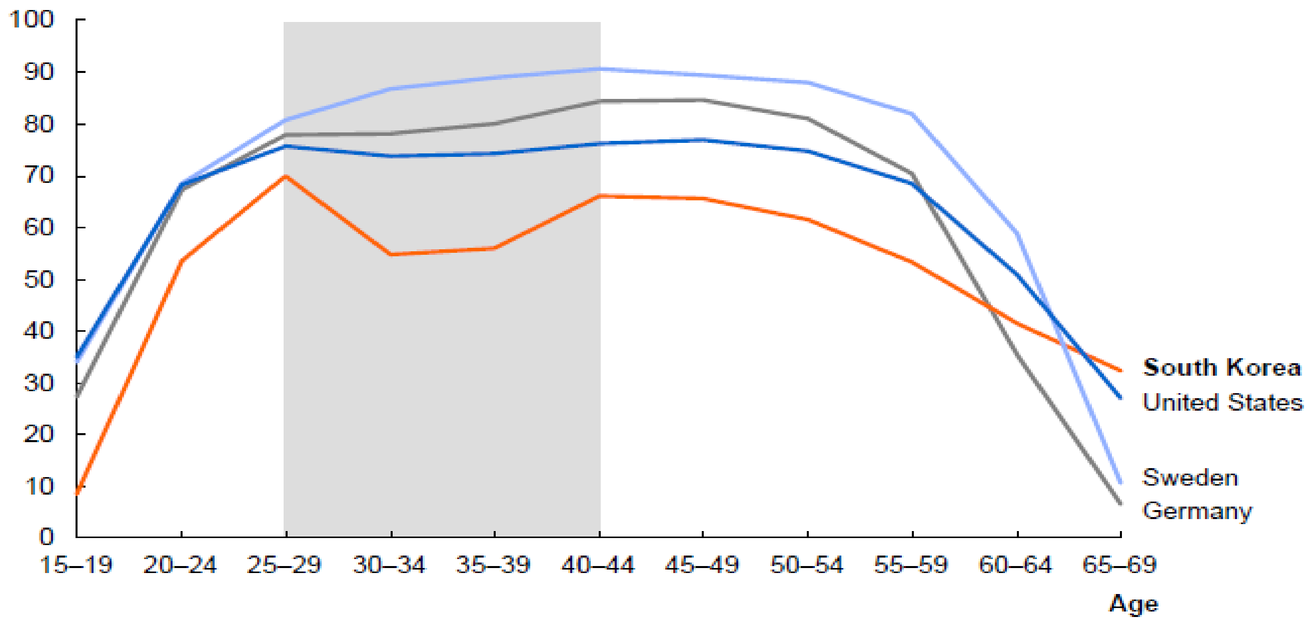
1 Low social investment generates a weak welfare network to support women to have kids and work at the same time (2/2)

Highly decreasing fertility rate

Low women work force participation

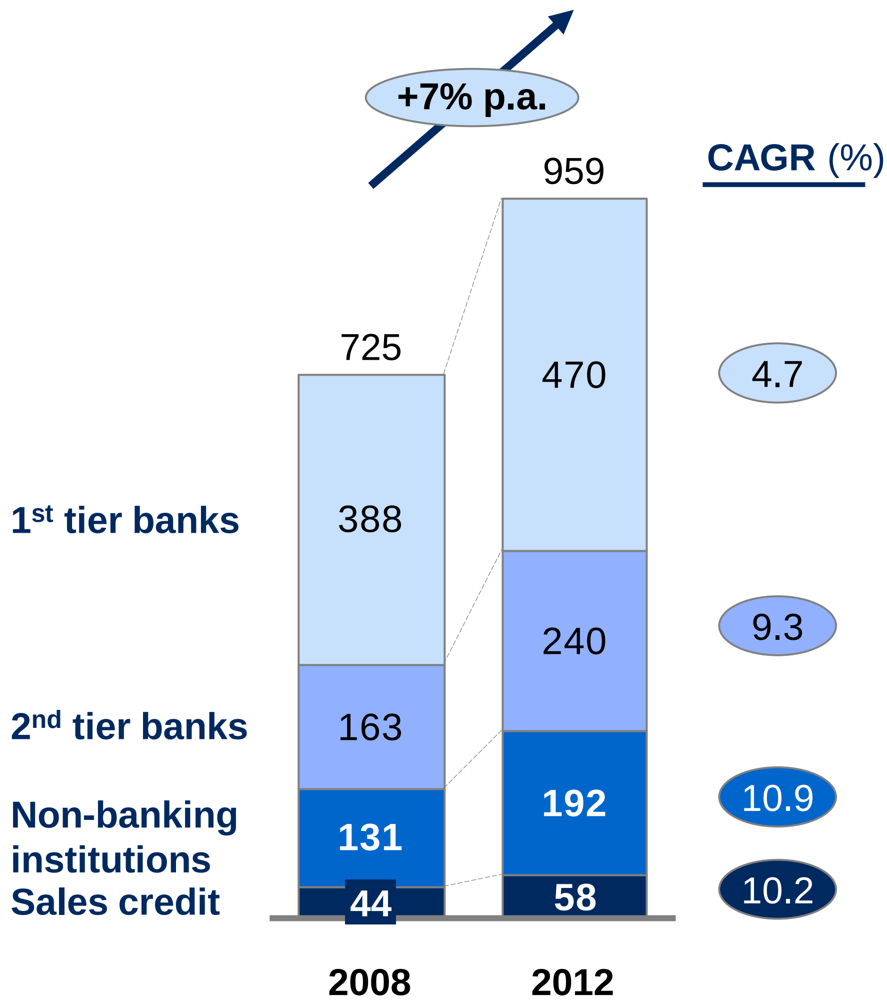
- **Low Women Work Force Participation**, 62%. (4th Lowest in OECD countries) even if they are usually better educated than men
- The number of **women leaving work to raise children is high**
- Women over 40 and mothers returning to labor force are more **likely to take temporary or day work**

Participation rate of women in Korea and OECD countries, 2010, %



SOURCE: Team analysis; Mckinsey reports; OECD; World Bank

2 Current policies in the South Korean banking sector are generating a huge household debt burden



- More and more households are **relying on loans and mortgages from non-banking institutions**, which imply a **higher cost of debt** for families
- High cost of debt together with short maturities and floating interests are **generating cash flow constraints for middle income families**
- The **premium** that South Koreans pay **for high LTV (loan-to-value) loans is higher than in most OECD** countries

SOURCE: Team Analysis; Mckinsey reports; OECD; World Bank

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We believe that Korea needs to focus on a growth model that ensures the improvement of middle income families' financial health

Middle income families face important social and economic stresses mainly due to…

High debt and low saving rates	• **High housing prices** (7.7 house price to income ratio in 2010 compared to 3.5 in the U.S.) • **High financing costs**: short mortgage maturity, floating interest, tight loan to value policy (LTV)
Slowing income growth	• **Source of income is shifting** from large companies to SMEs that are not creating high paying jobs • **Unique source of income**: 54% of households depend on just the male's income • **Women with children cannot sustain an equilibrated work-life balance**, being unable to get a full-time job
High education expenses	• **Higher private education expense** than most societies in the world • **Public education does not adequately prepare students** for university entrance exams • Government **investment in education is lower** than in the rest of OECD countries

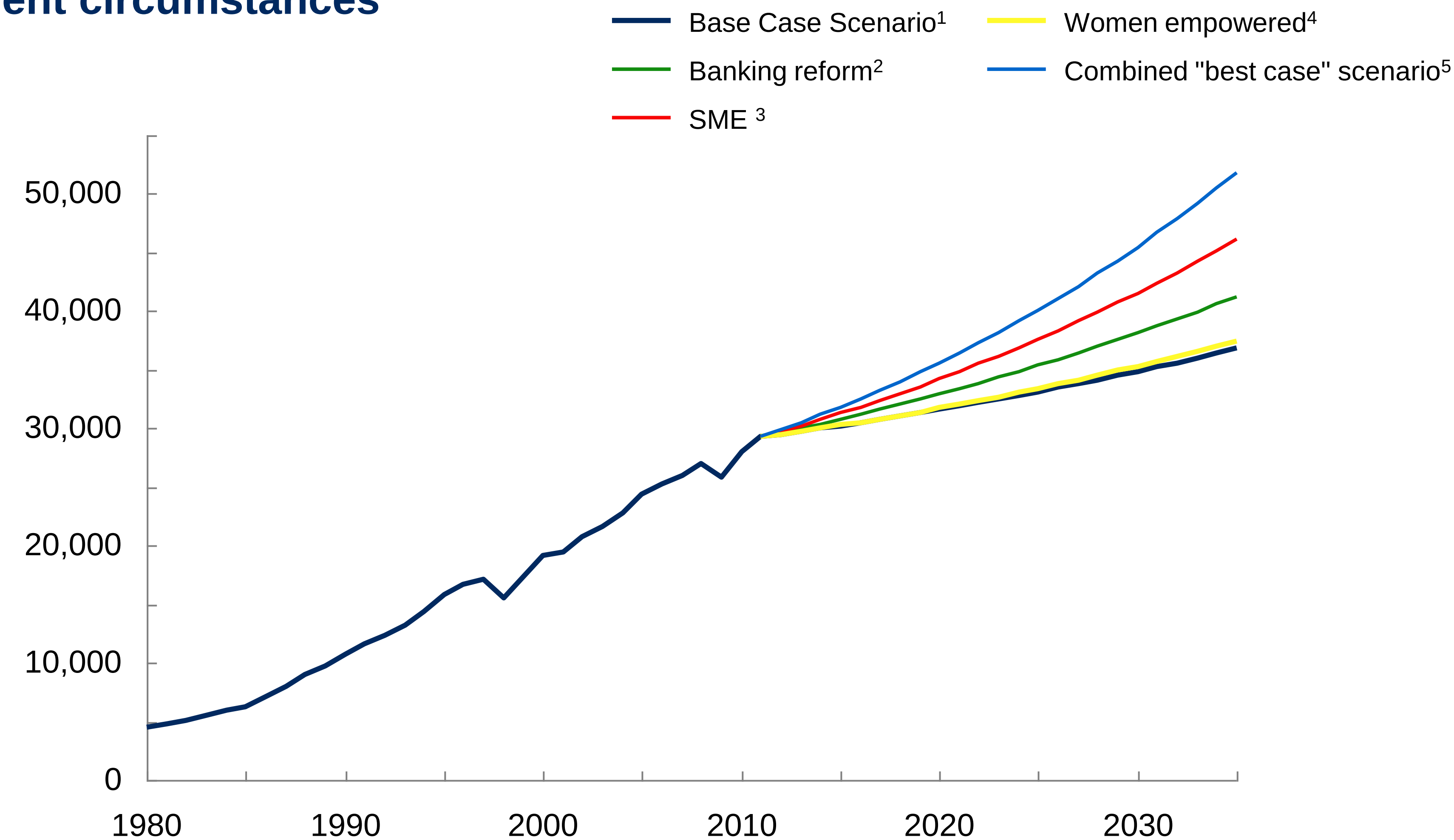
For those reasons, we suggest…

- **Banking reform** including a **looser LTV policy**
  - protect from real estate bubble
  - allow middle class to have loans from 1st tier banks
- Increased efforts to build up a **high value services sector:**
  - Promote entrepreneurship
  - Reduce barriers for SMEs (e.g. less rigid labor mkt.)
- **Higher social investment** to allow women to access employment. This would require a **tax reform** possibly focused on slightly increasing taxes for corporates over 20 billion won[1]

1 Measure to be analyzed in greater detail due to its complexity

SOURCE: Team Anlysis; Mckinsey reports; OECD; World Bank

The proposed reforms and policies have been modeled as different scenarios that reflect the potential evolution of GDP per capita under different circumstances



1 Assumes growth in a “Status Quo” situation, following currently expected trends
2 Scenario under a banking reform influencing saving levels and TFP growth
3 SME contemplates an scenario where SMEs are developed to narrow the productivity gap between SMEs and large corporates
4 Women at work involves the creation of better condition for women, boosting fertility and making easier for women to access jobs
5 Combined best case scenario is the addition of all the mentioned reforms
SOURCE: Team Analysis; World bank data