Out of the Great Recession
An EME's Perspective

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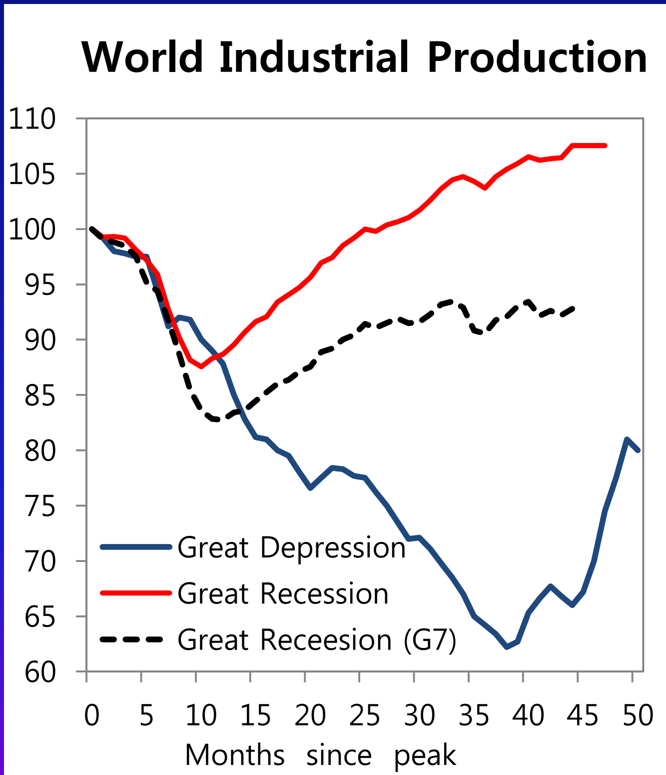
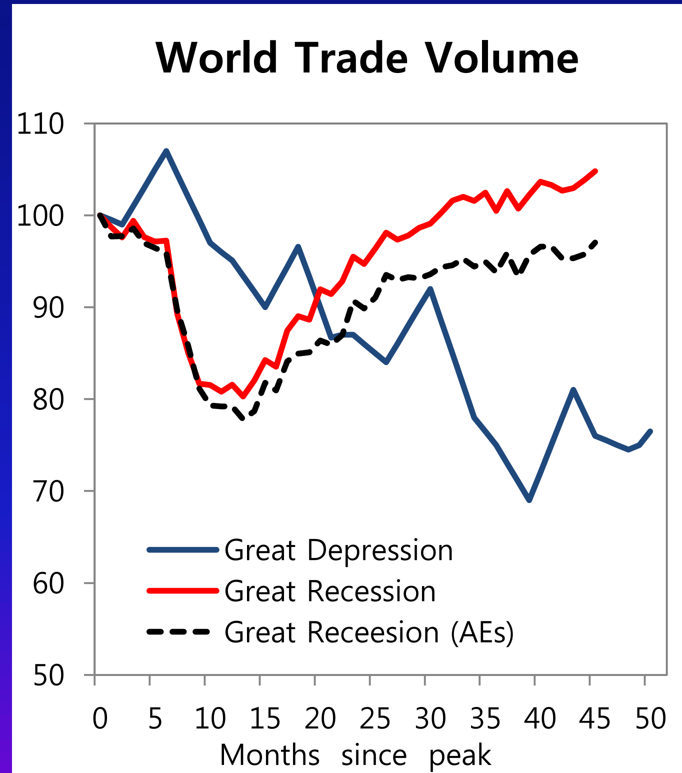
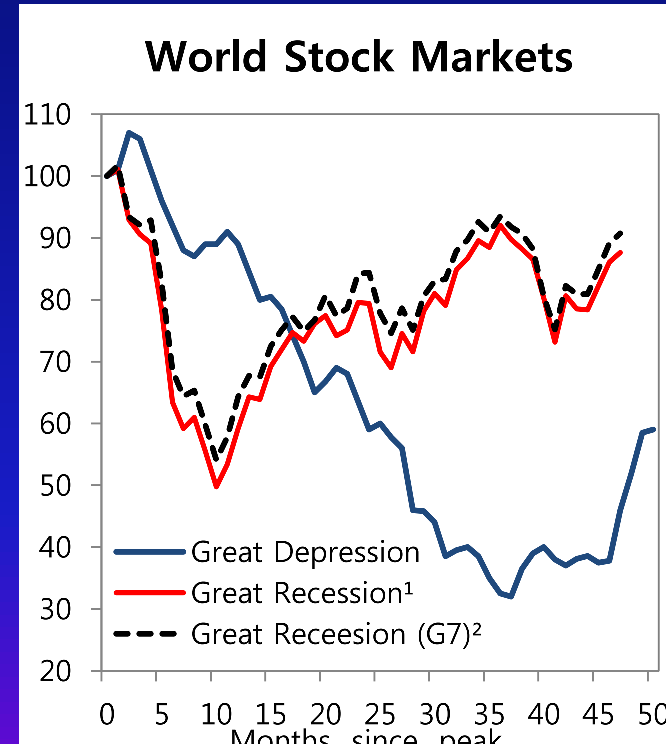
Great Recession in Perspective

- Global economy contracted at a pace comparable to the Great Depression but reversed its course within a year







Note: 1. MSCI world index
2. GDP-weighted average of G7 countries' stock price indexes

Sources: Eichengreen and O'Rourke (2009); Bloomberg; Global Insight; CPB World Trade Monitor

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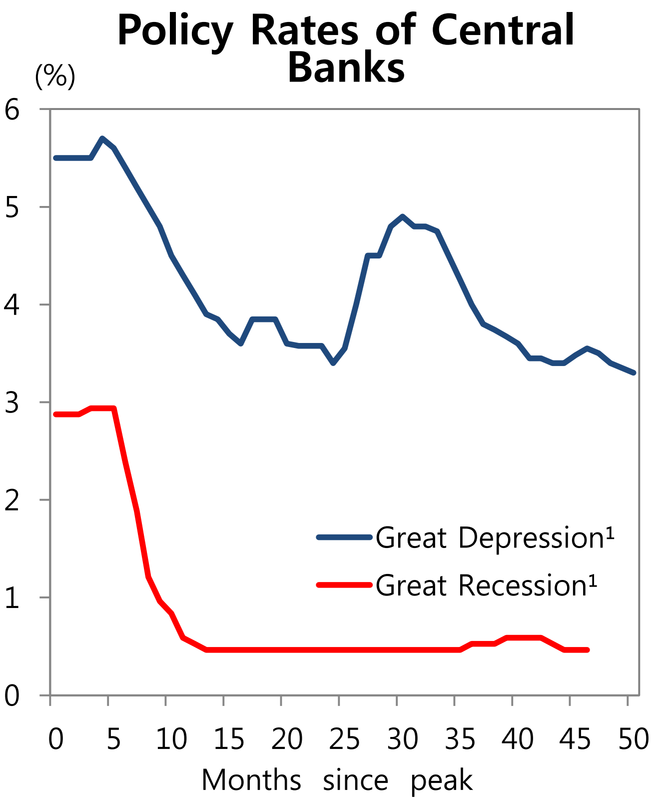
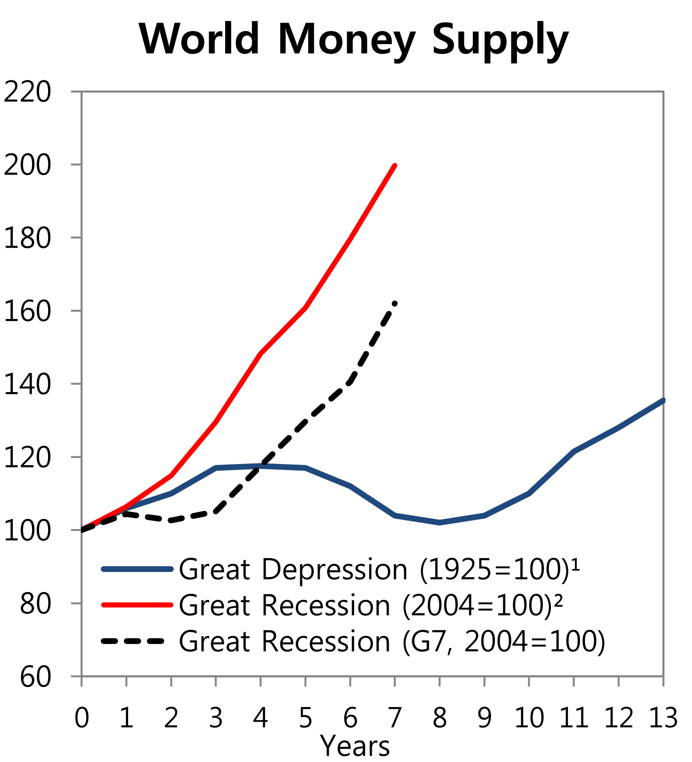
Great Recession in Perspective

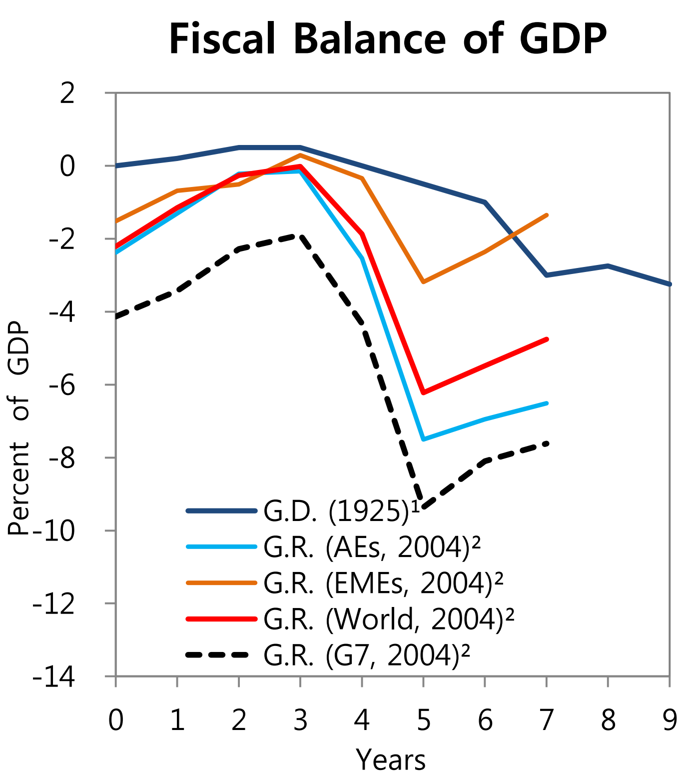
- Active and concerted policy efforts were pivotal



Note: 1. Average of central bank policy rates for G7 countries



Note: 1. GDP-weighted average of 19 countries
2. Money supply of the world (Global Insight)



Note: 1. GDP-weighted average of 24 countries
2. Regional figures are from Global Insight

Sources: Eichengreen and O'Rourke (2009); IMF; Bloomberg; Global Insight

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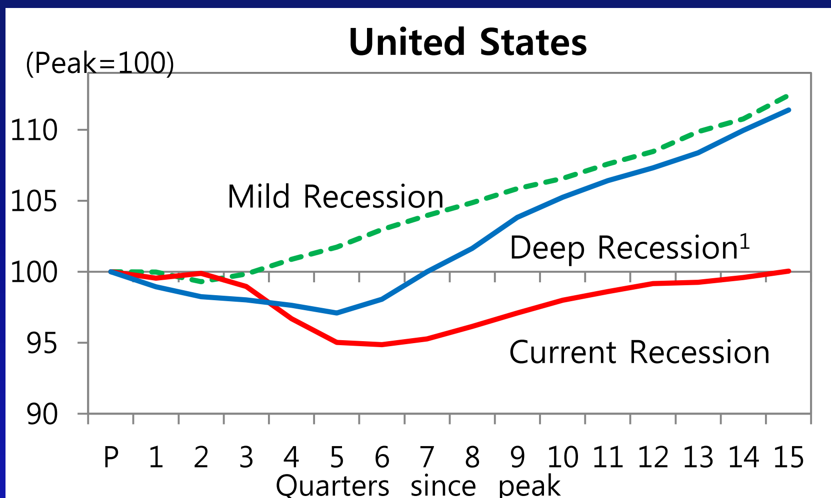
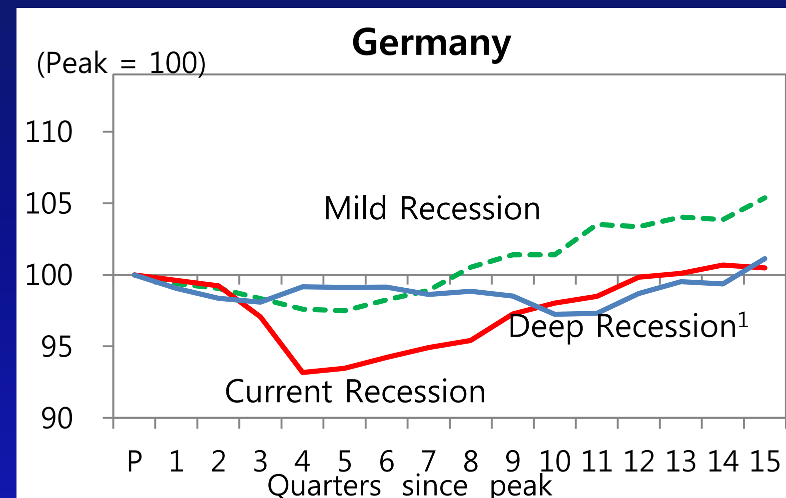
Great Recession in Perspective

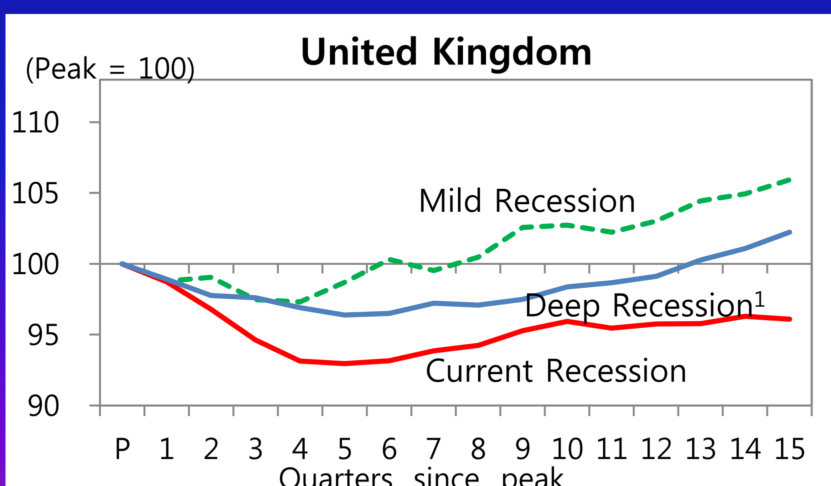
- **Current recovery is slower than in the past**



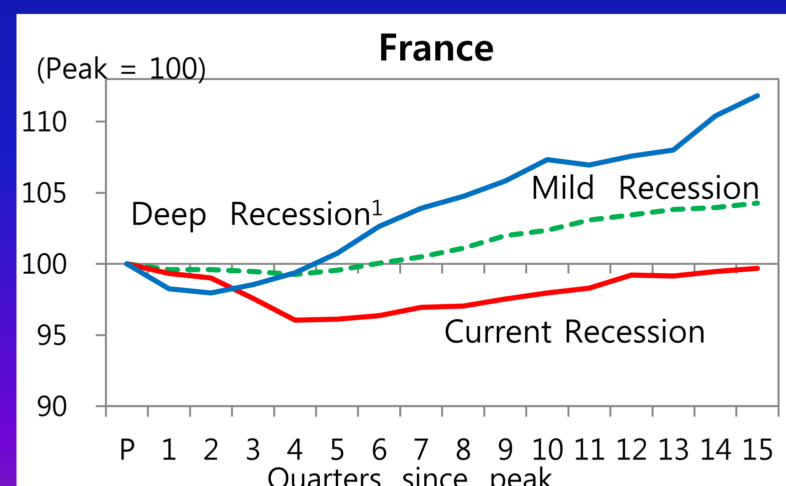
Note: 1. Cycles with peaks in 1973 and 1981



Note: 1. Cycles with peaks in 1974 and 1980



Note: 1. Cycles with peaks in 1979 and 1990
Sources: IMF; Eurostat



Note: 1. Cycle with peak in 1992

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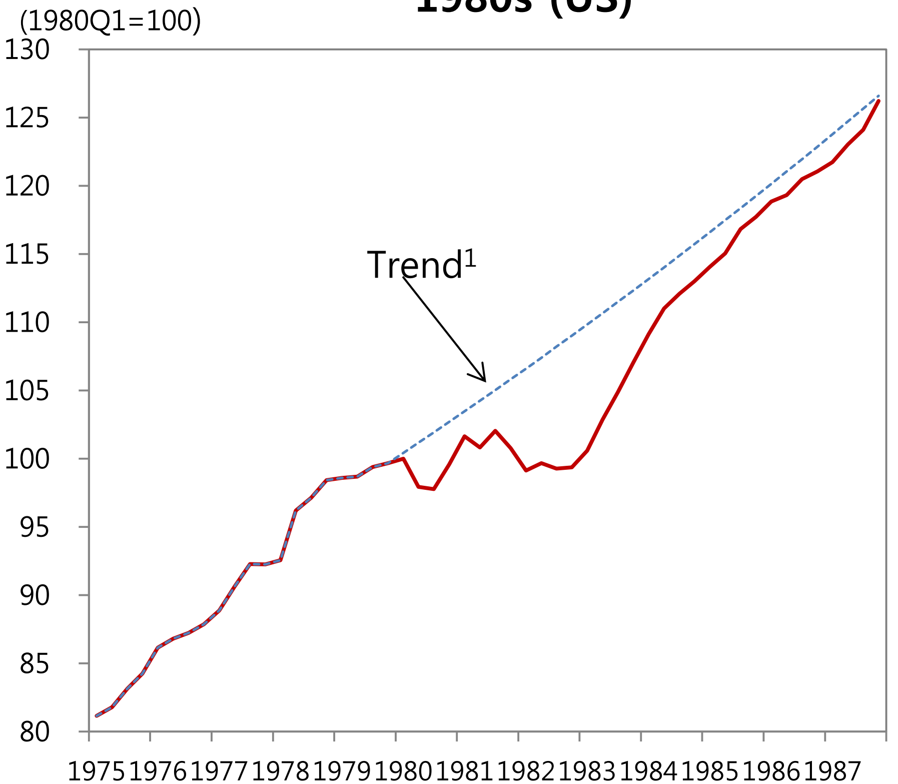
Great Recession in Perspective

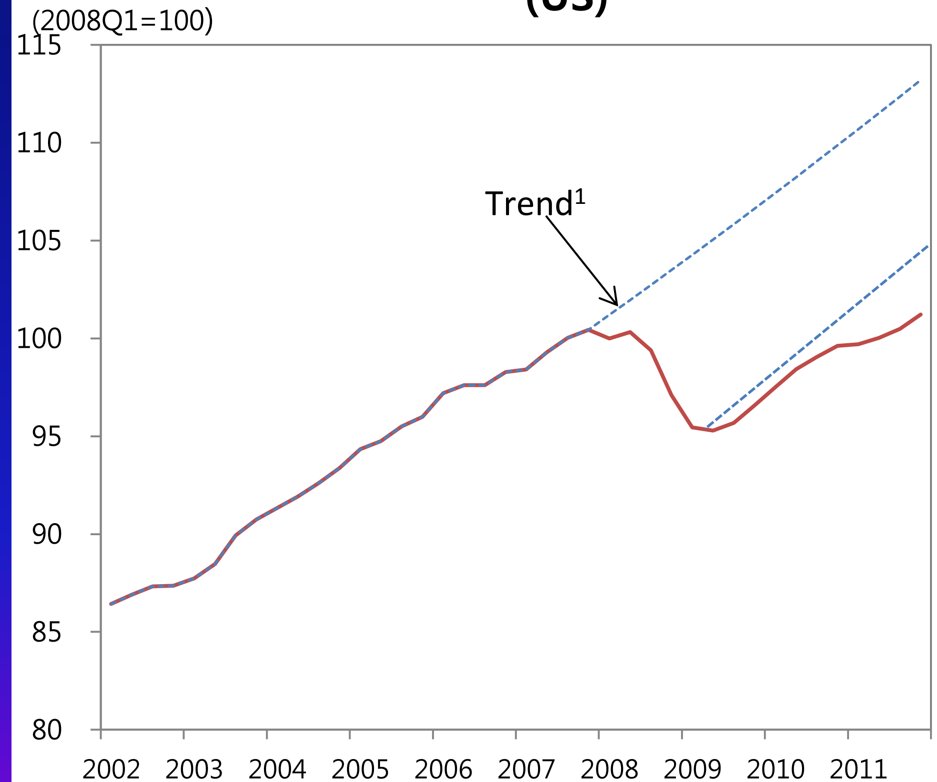
- US economy is falling behind long-term trend

Recovery from Double Dip of early 1980s (US)



Note: 1. Average GDP growth rate between 1970-2007 (=3%)
Source: BEA

Recovery from Great Recession (US)



Note: 1. Average GDP growth rate between 1970-2007 (=3%)
Source: BEA

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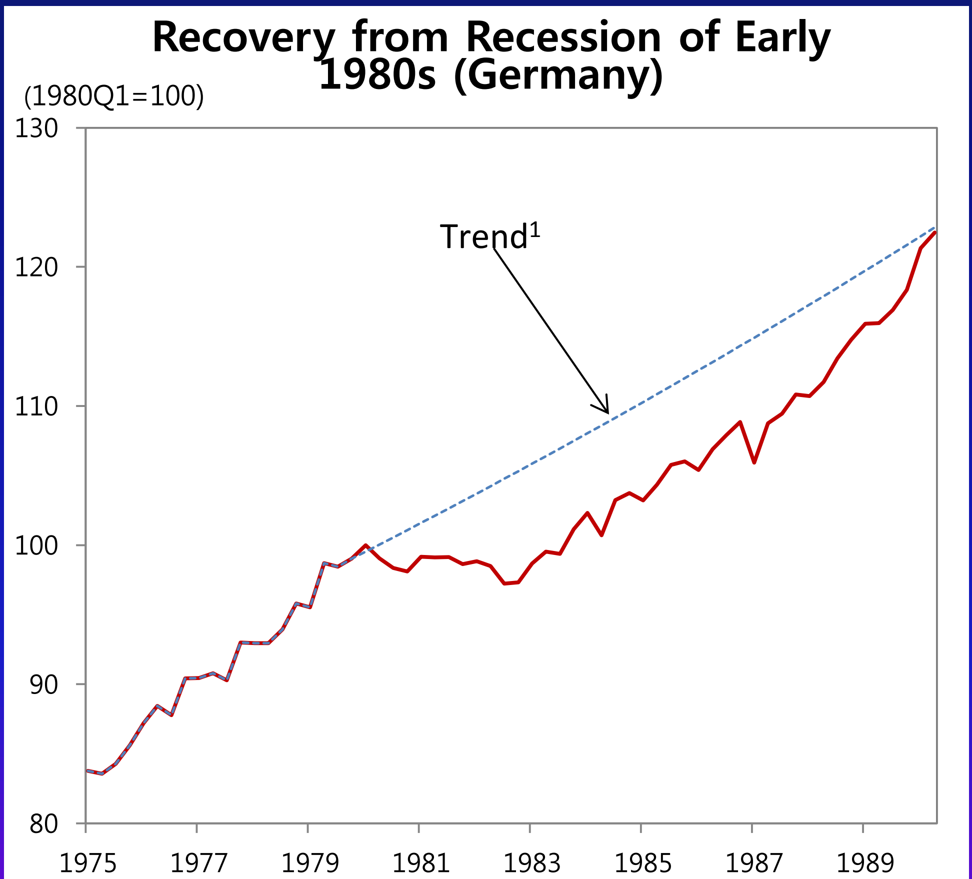
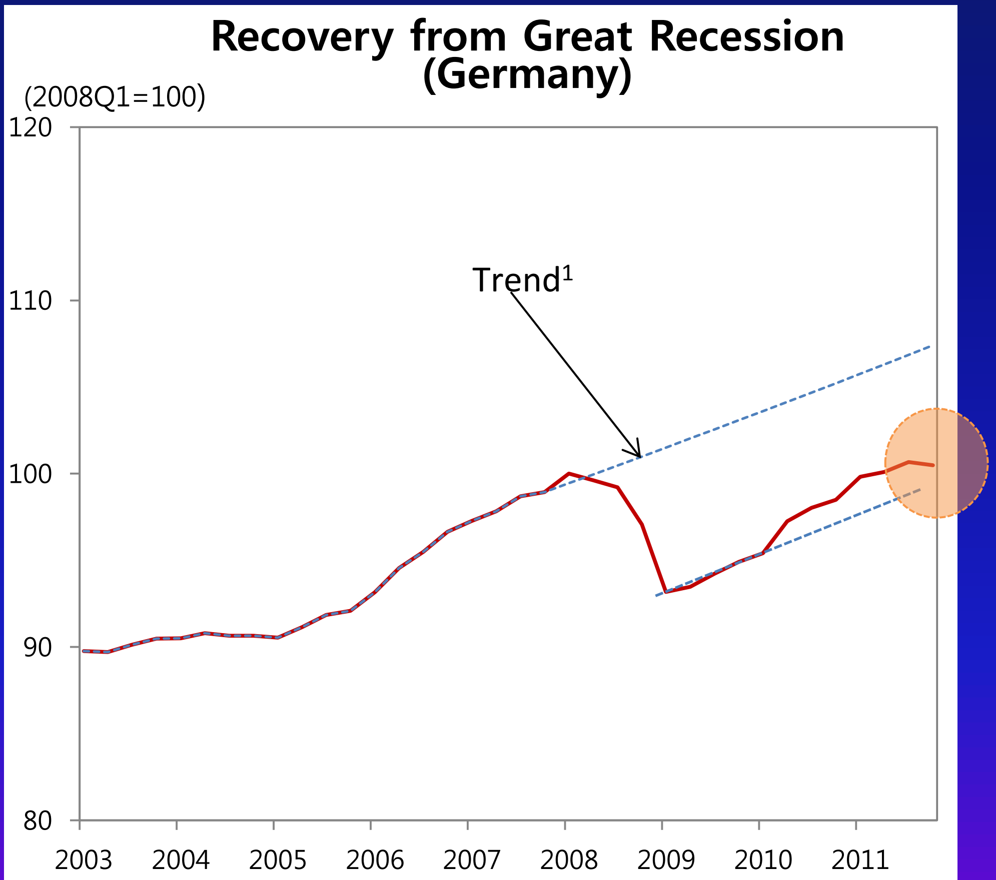
Great Recession in Perspective

- Germany is doing only slightly better



Note: 1. Average GDP growth rate between 1970-2007 (=2.5%)
Sources: IMF; Eurostat



Note: 1. Average GDP growth rate between 1970-2007 (=2.5%)
Sources: IMF; Eurostat

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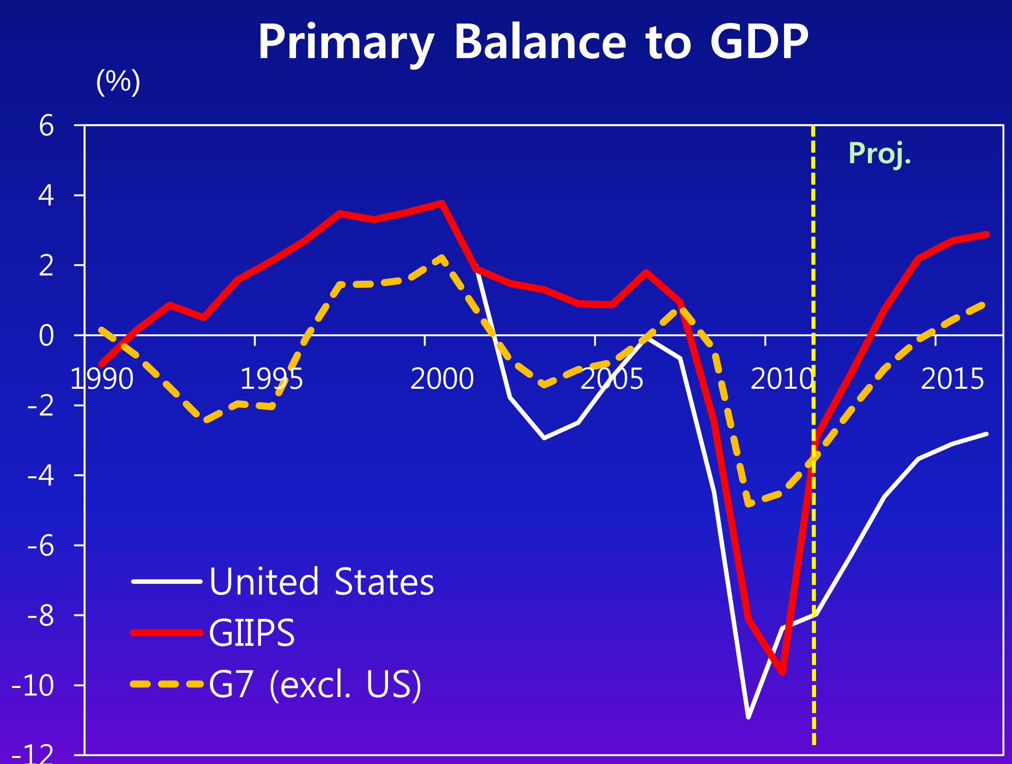
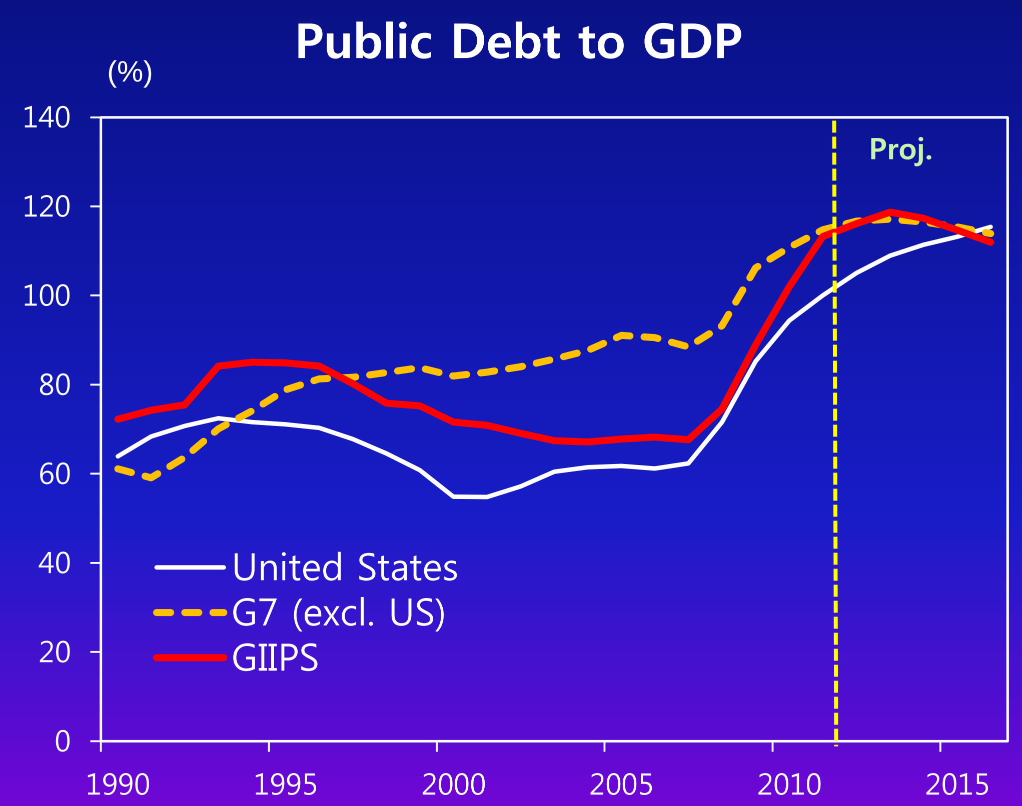
I Challenges Ahead for Revival of Growth

Legacy of the Global Crisis

- **AMEs' public debt projected to rise further despite shrinking deficits**





Note: Simple averages
Sources: IMF WEO and country reports of Greece, Ireland and Portugal

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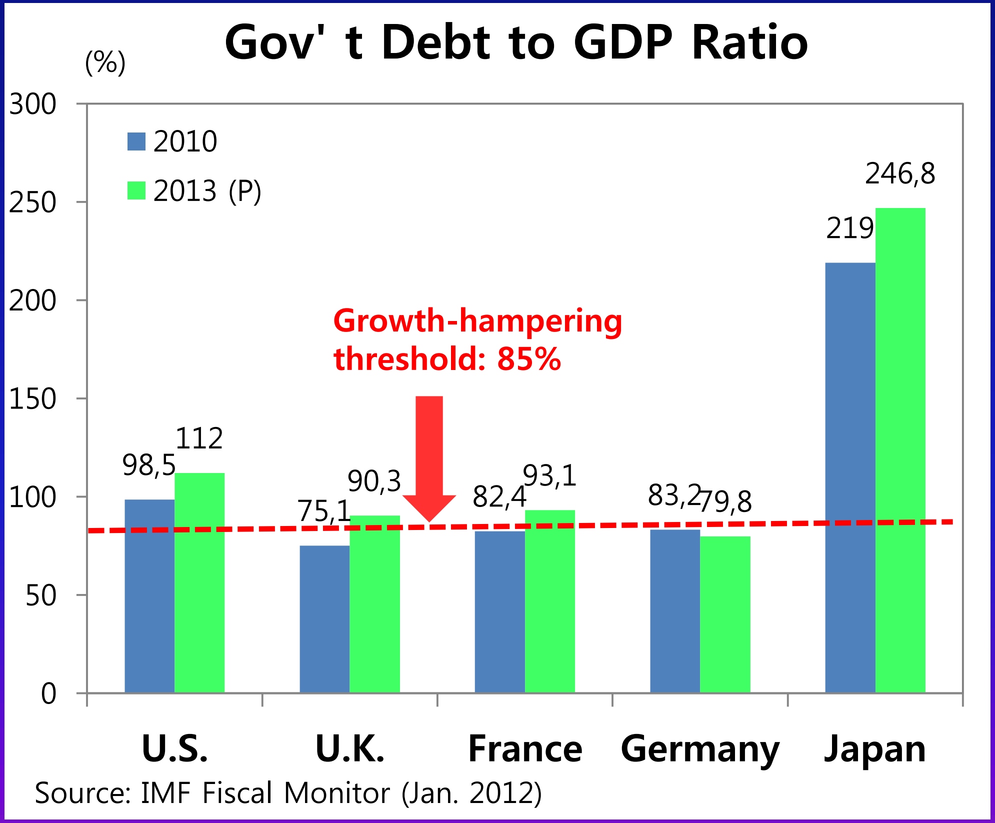
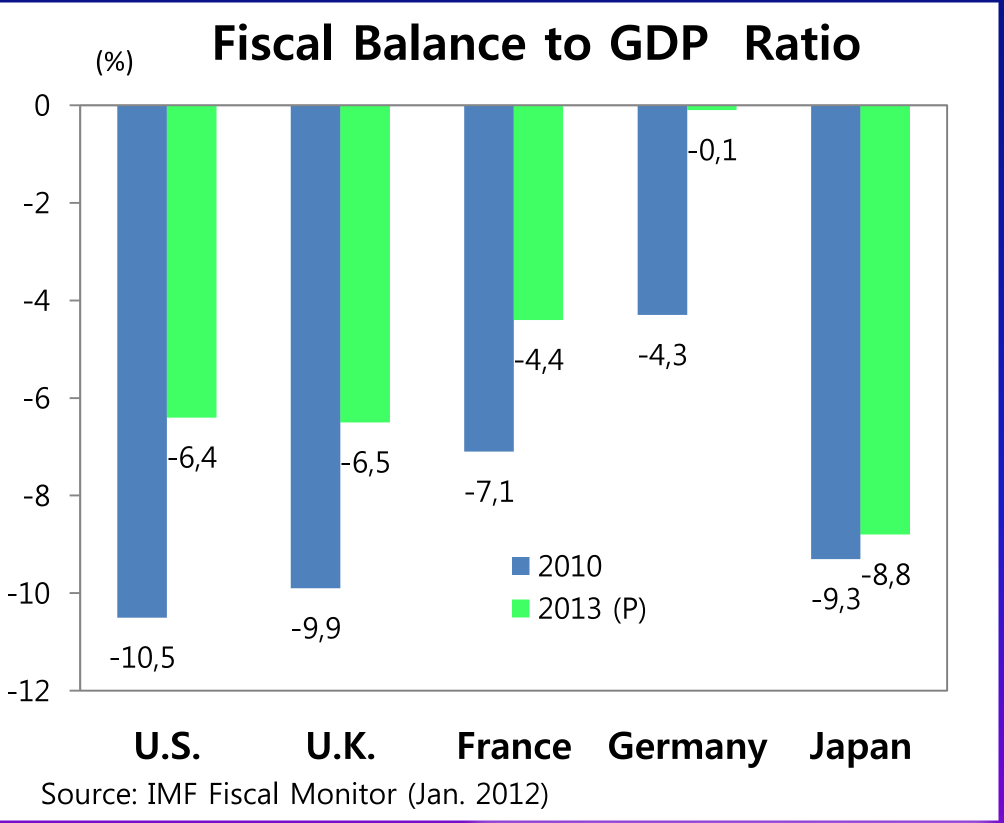
Debt Overhang

- AMEs' public debt ratio at or above critical threshold for debt overhang





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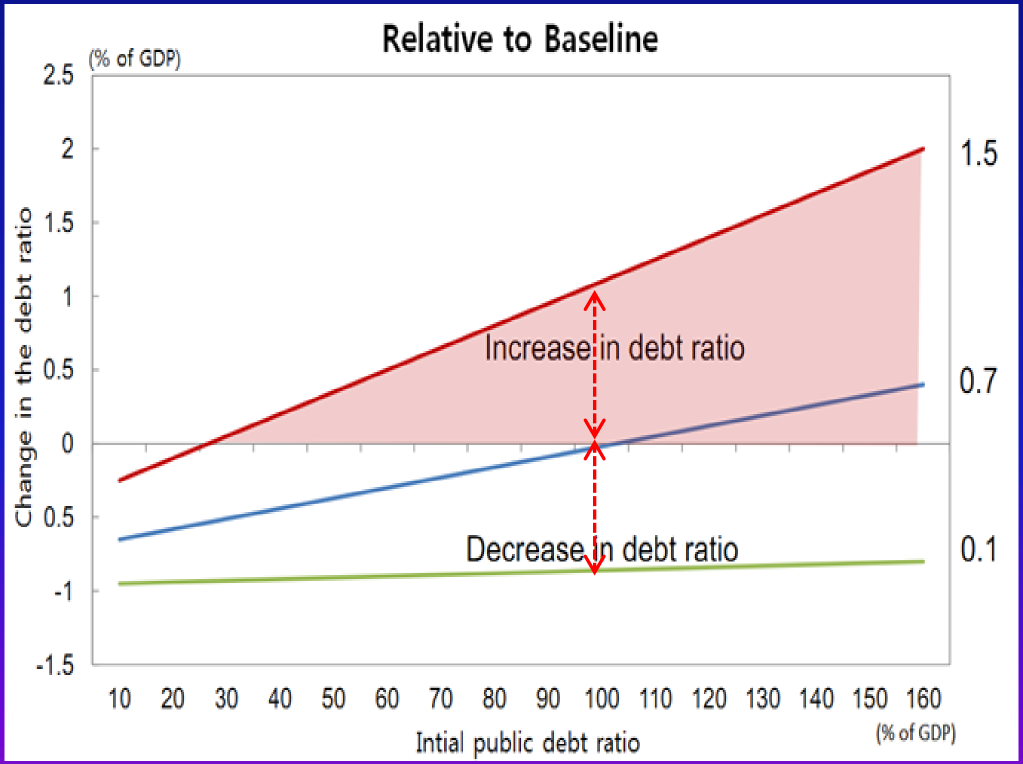
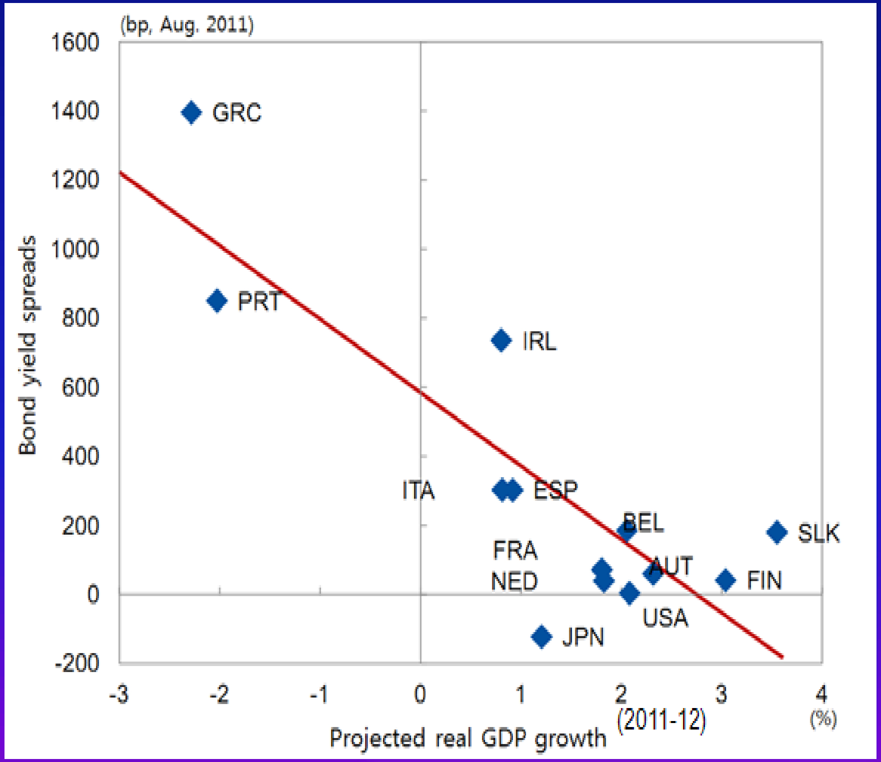
Fiscal Consolidation

- Fiscal tightening may not bring about the intended results

Impact on Debt Ratio of 1% of GDP Discretionary Fiscal Tightening (1st yr)



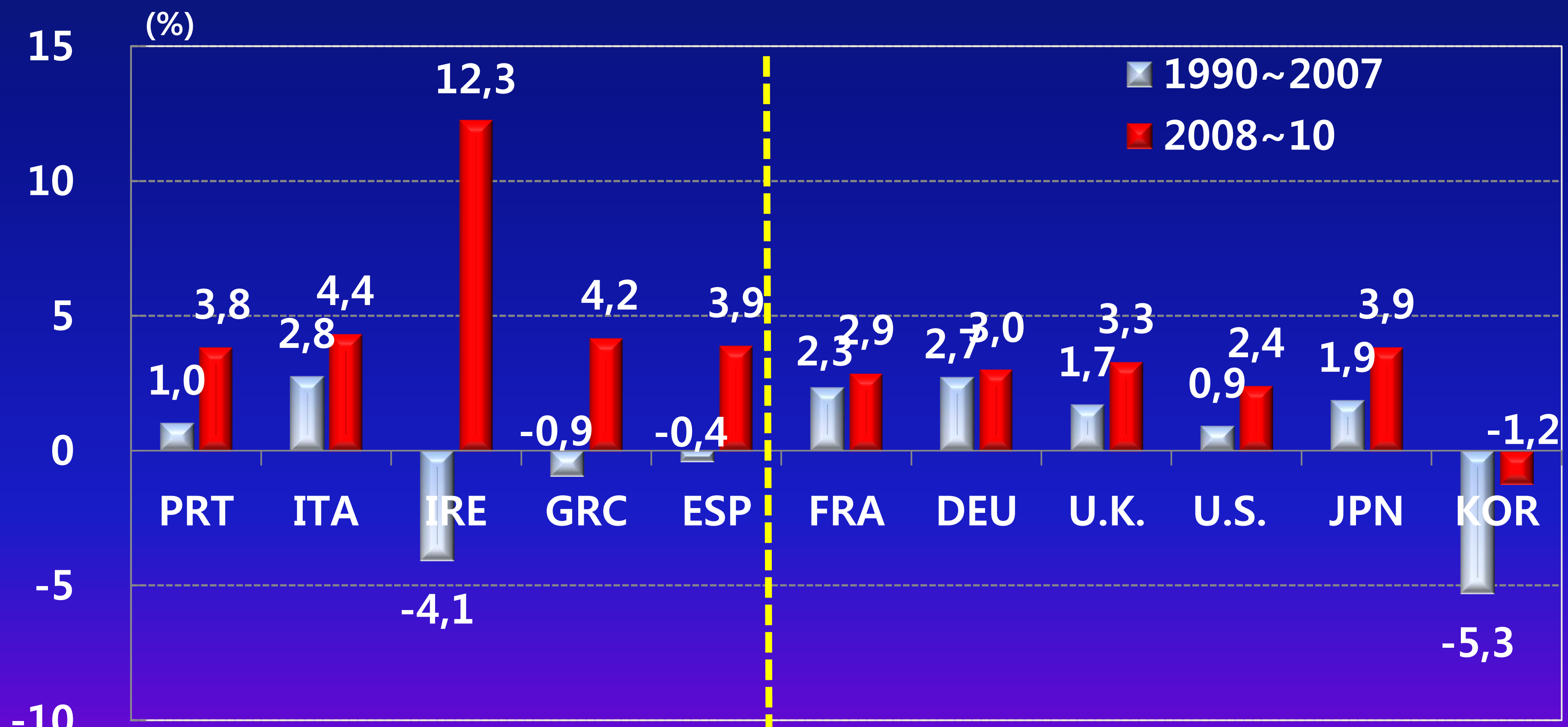
Sovereign Bond Yield Spreads and Projected GDP Growth



Source: Cottarelli (2012)

Interest Rate-Growth Rate Differential

- Generally higher during post-crisis period in most AMEs and among GIIPS in particular



Source: BOK staff calculation

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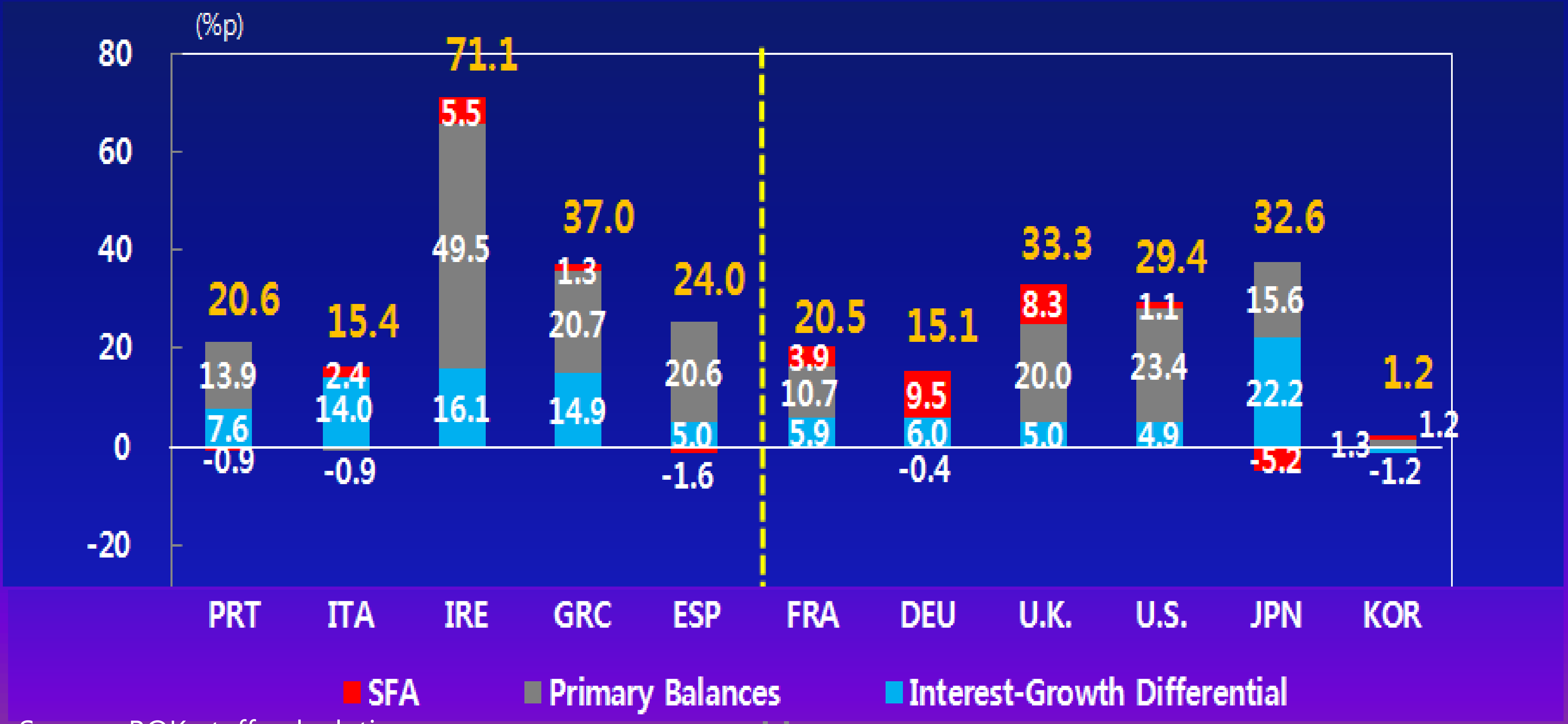
Historical Decomposition: 2008-2010

$$\Delta d_{t+1} = \underbrace{(r_t - g_t)d_t}_{\text{Automatic debt dynamics}} - \underbrace{pb_{t+1}}_{\text{Primary balance}} + \underbrace{sfa_{t+1}}_{\text{Stock-flow adjustment term}}$$

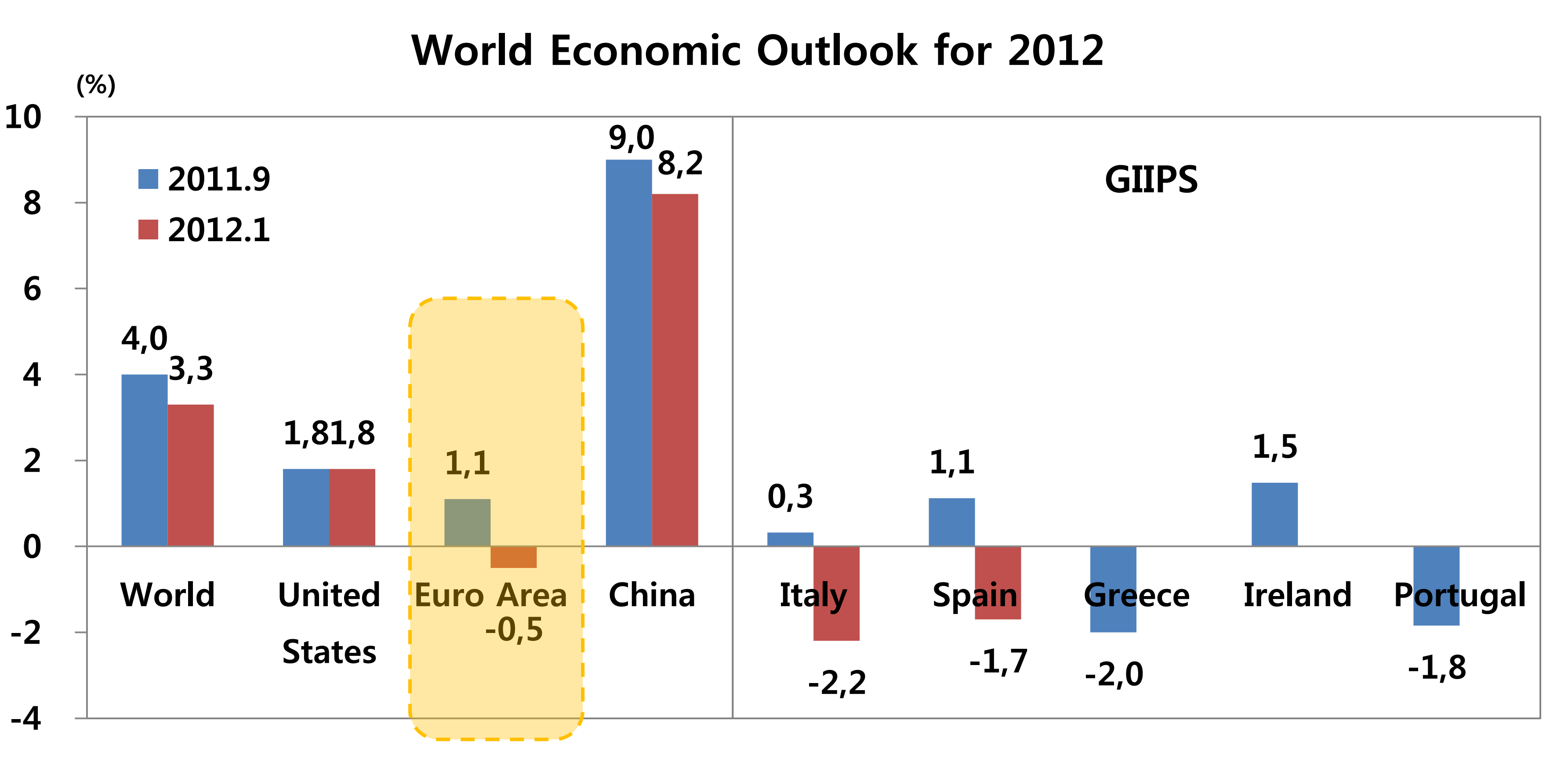
d = D/GDP = public debt ratio (% of GDP), *r* = real effective interest rate on debt, *g* = real GDP growth, *pb*: % of GDP (minus if deficit), *sfa:* % of GDP



Source: BOK staff calculation

Alarming Growth Prospects for AMEs

- Disappointing growth in US and mild recession in the Eurozone



Sources: IMF WEO (Sep. 2011 and Jan. 2012)

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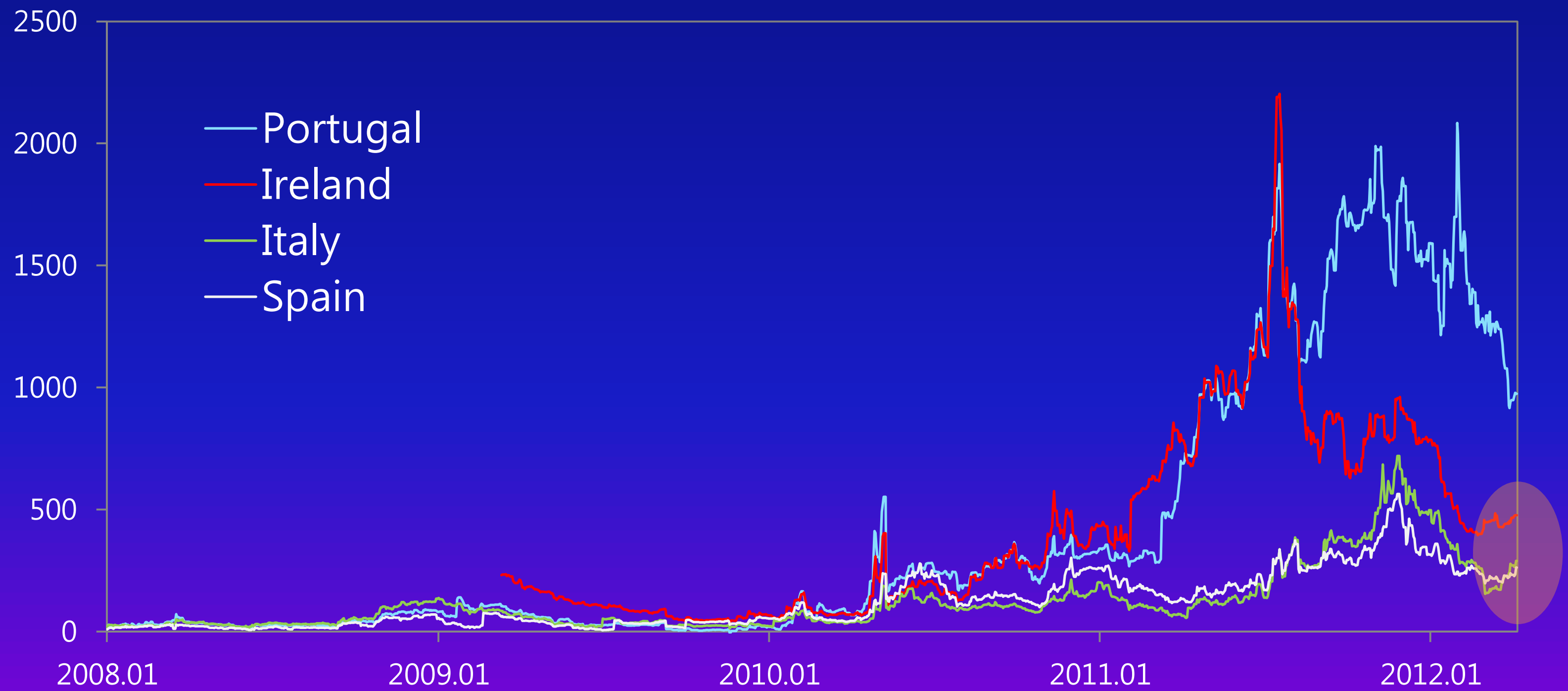
Fiscal Risk for GIIPS

- **Government bond spreads have fallen but still remain elevated**

Government Bond Spreads of Euro-periphery

(Two-year yield spread over German bunds, basis points)



Source: Bloomberg

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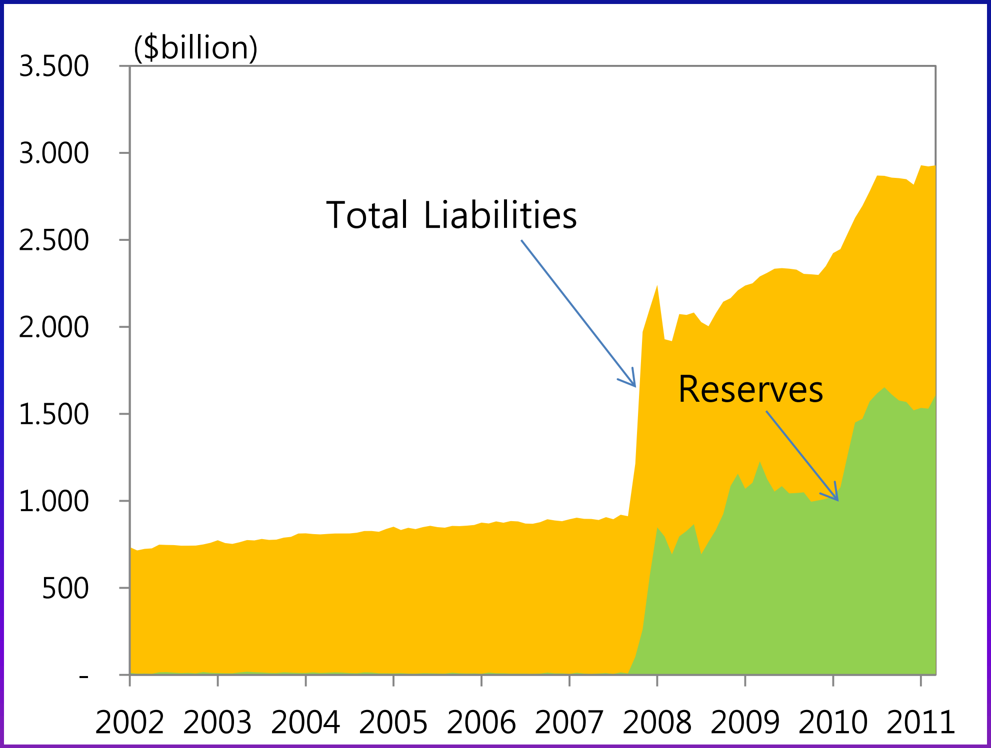
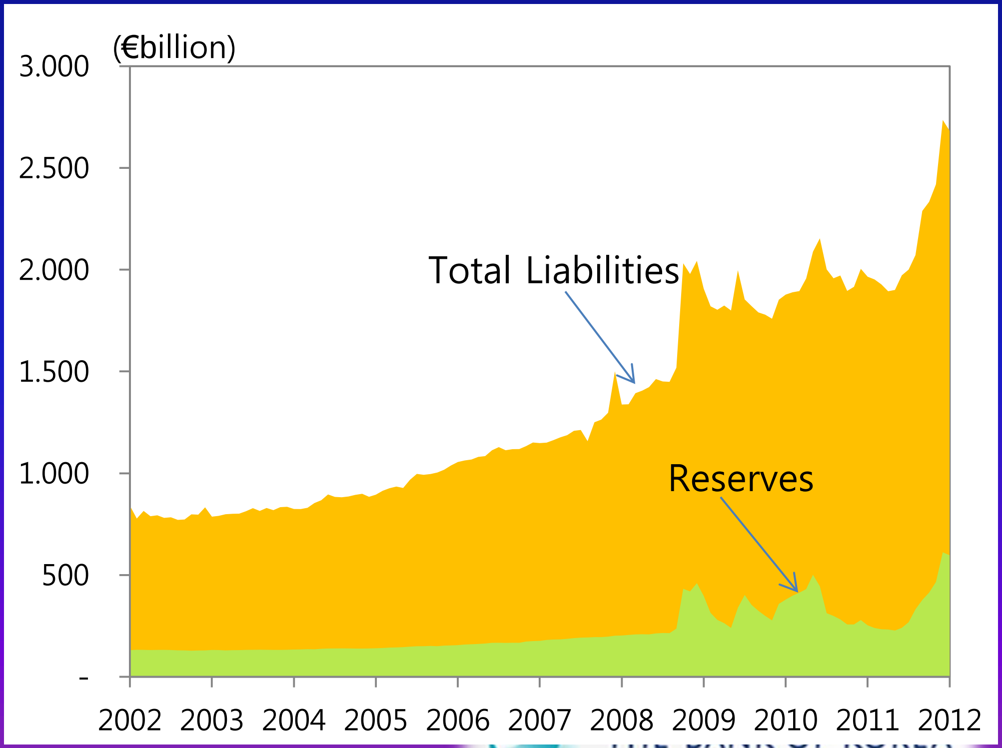
Limited Policy Space on Monetary Front

- Unconventional monetary easing in AMEs
  - Fed: $2.4 trillion in total through QE 1 and QE2
  - ECB: LTRO €1.1 trillion through 1st and 2nd LTRO

US Fed Balance Sheet



ECB Balance Sheet



Sources: Fed; ECB

Sources of Negative Financial Spillovers

- AMEs' deleveraging
- AMEs' extraordinary monetary easing
- Financialization of commodities

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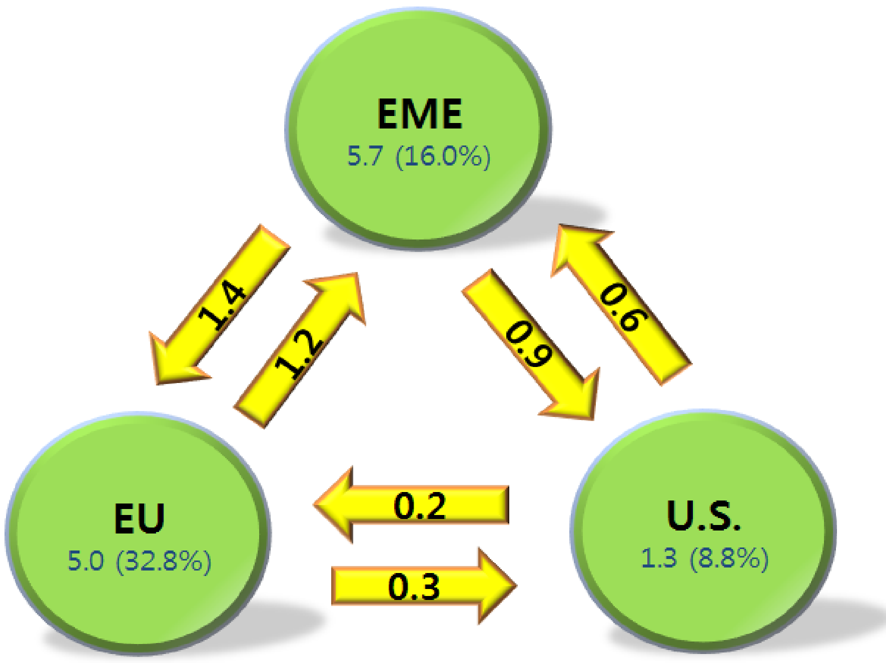
Spillover: Real Linkages

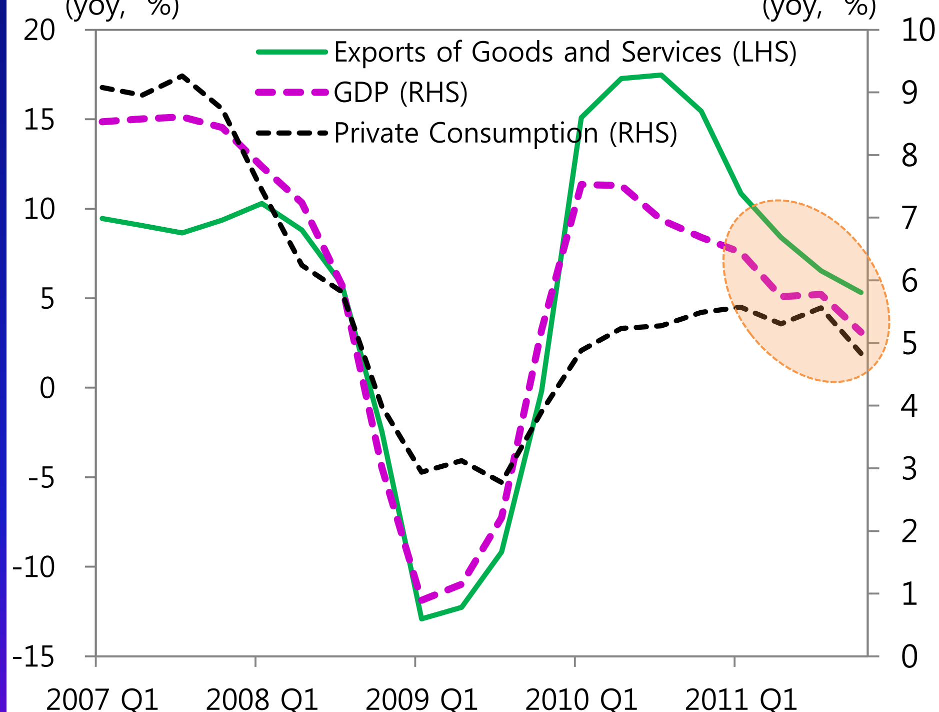
- EU and US are major trading partners of EMEs

Exports between EMEs and AEs
(Trillion USD, as of 2010)



Note: Figures in the parenthesis are the share of exports in GDP.
Source: IMF DOT

GDP, Exports and Consumption in EMEs[1]



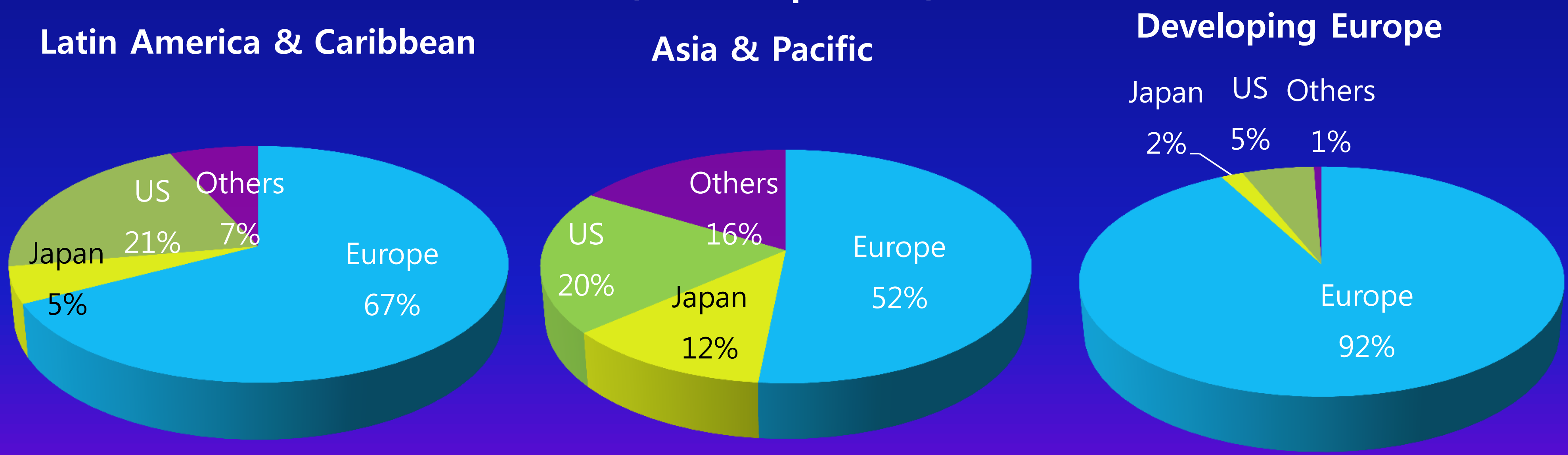
Note: 1. Non-OECD countries

Spillover: Financial Linkages

- **The brunt of EMEs' external funding is intermediated through European banks**

European Banks' Share in EMEs' External Funding

(As of Sep. 2011)



Source: BIS Banking Statistics

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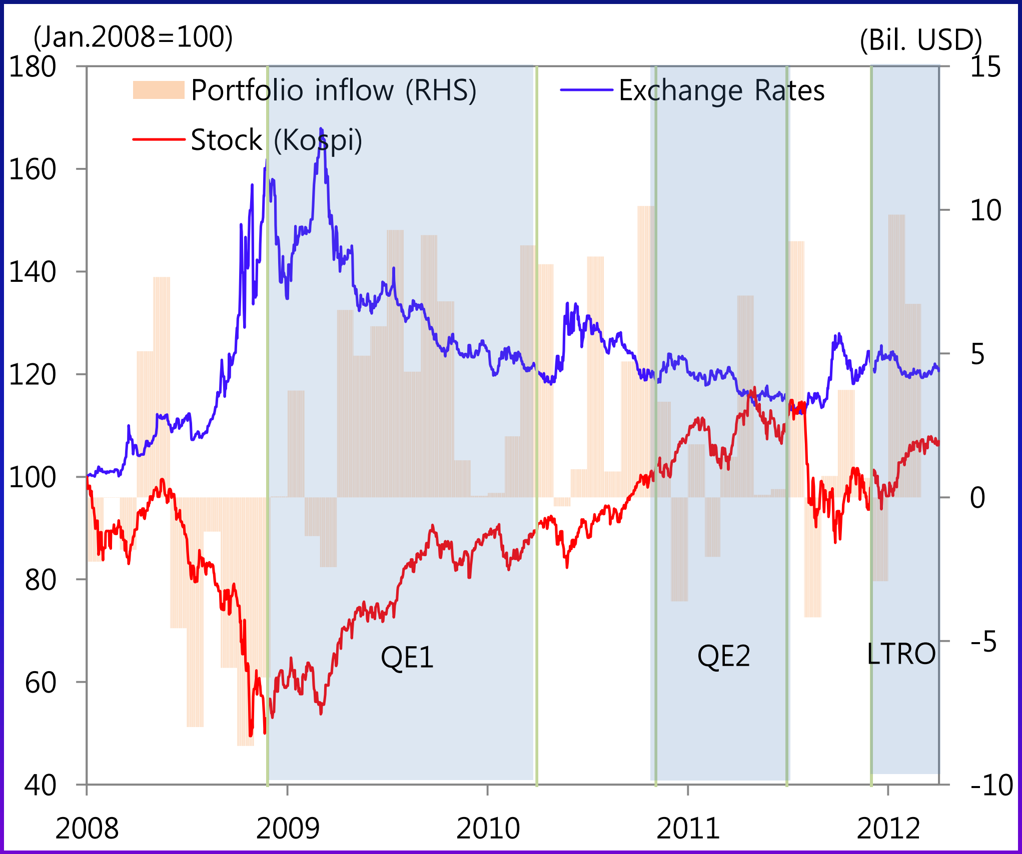
Spillover: Policy Linkages

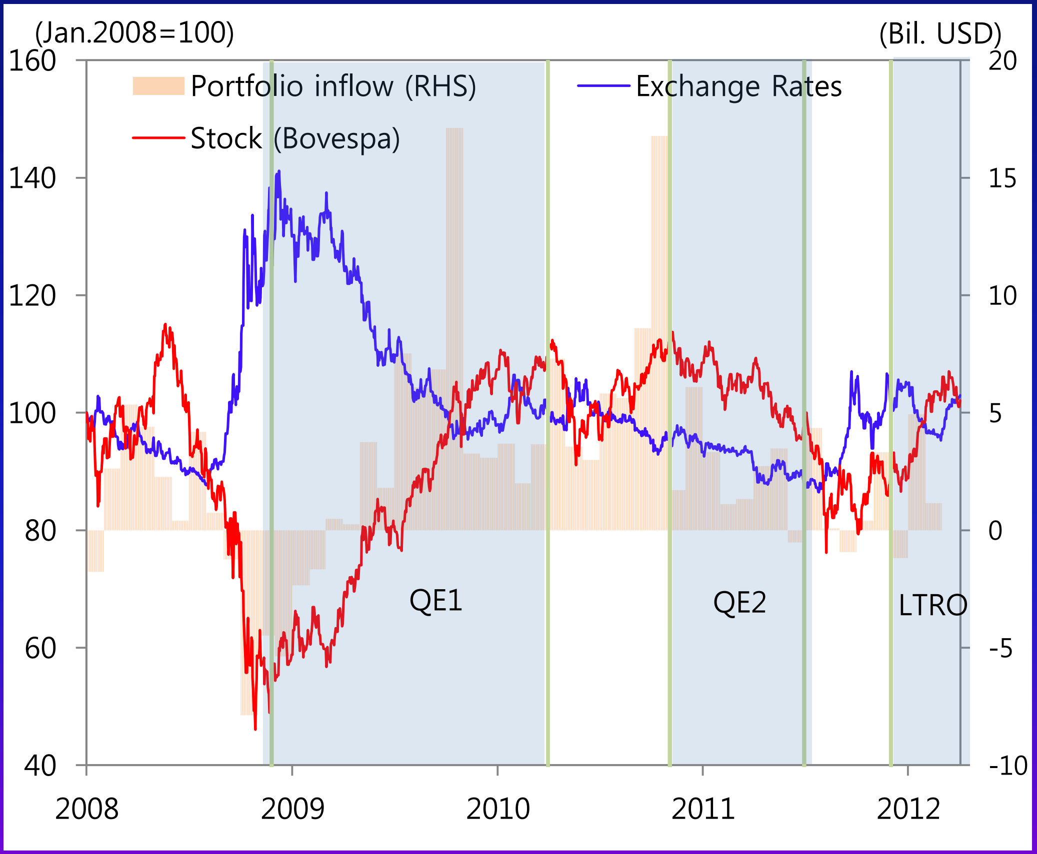
- AMEs' monetary easing causes instabilities in EMEs

QEs and Portfolio Investment into Korea and Brazil

Korea



Brazil



Note: Shades indicate the periods during which the Fed's QEs or the ECB's LTRO was implemented.
Sources: Bloomberg; the Bank of Korea; Banco Central do Brasil

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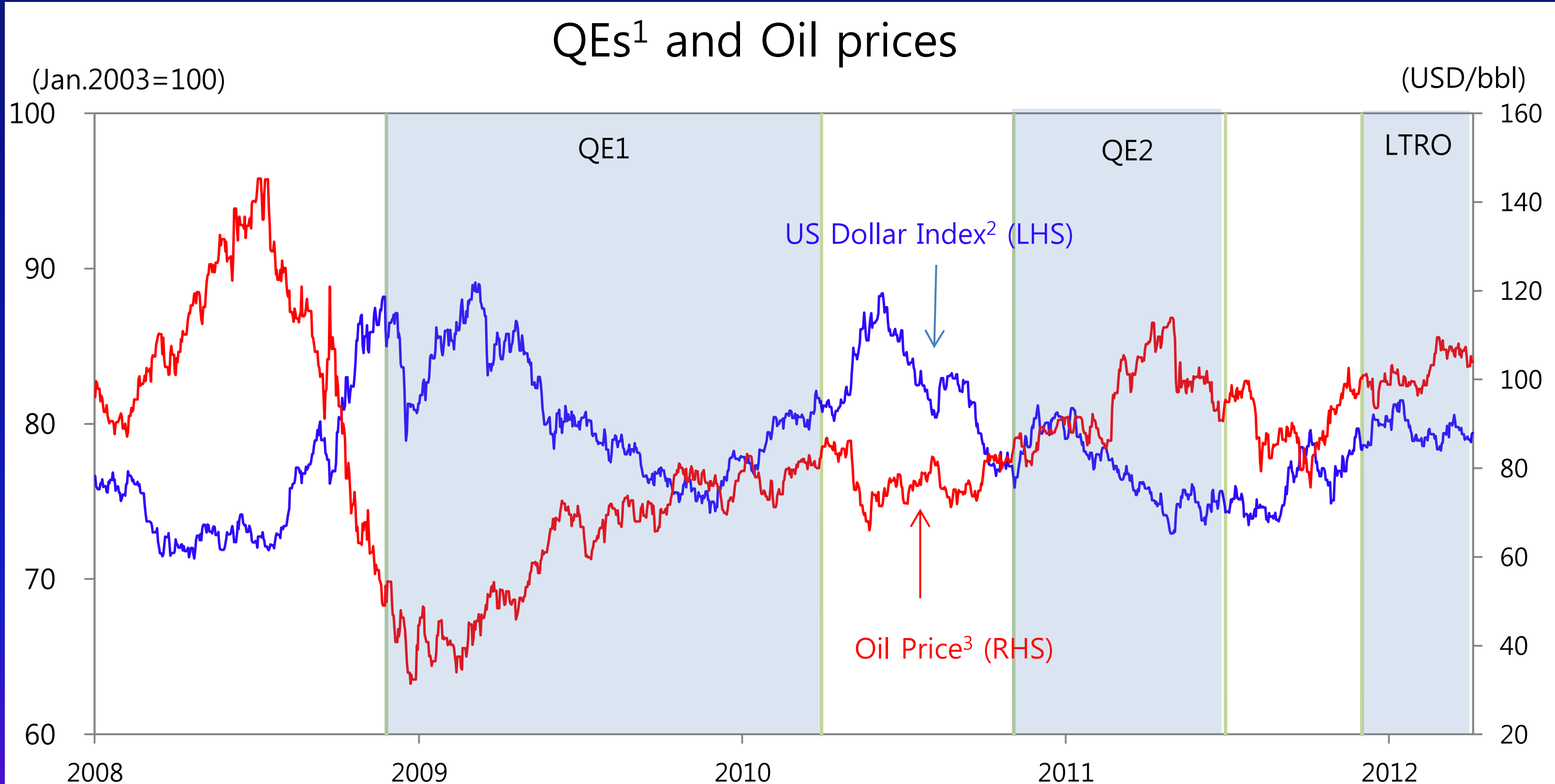
Spillover: Policy Linkages

Financialization of commodities



Note: 1. Shades indicate the periods during which the Fed's QEs or the ECB's LTRO was implemented.
2. Bloomberg US dollar index
3. WTI
Source: Bloomberg

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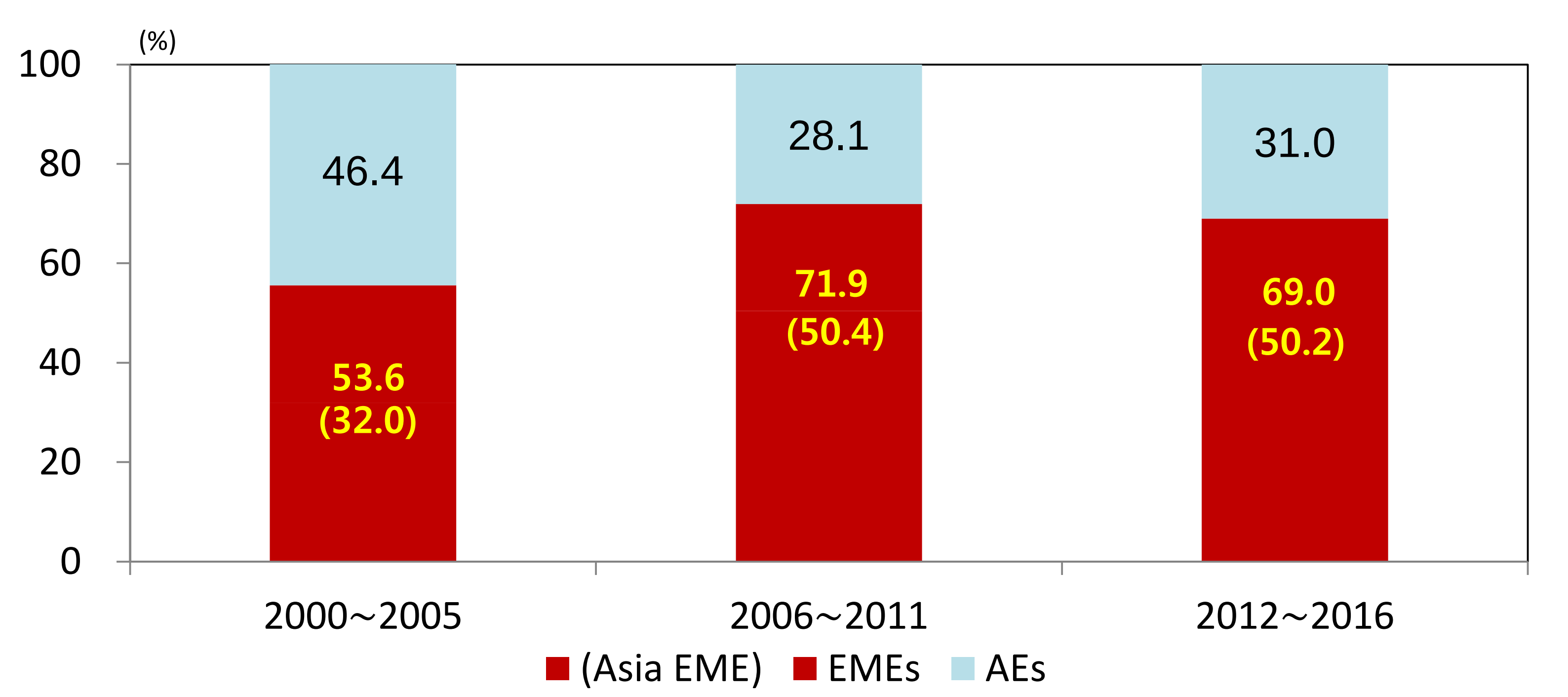
Ⅱ Seeking a Global Solution for Growth

Greater Role of EMEs Expected

- EMEs' contribution to world GDP growth amounts to 70%

EMEs' Contribution to World Economic Growth



Note: Figures in the parenthesis are for Asian EMEs
Source: IMF WEO

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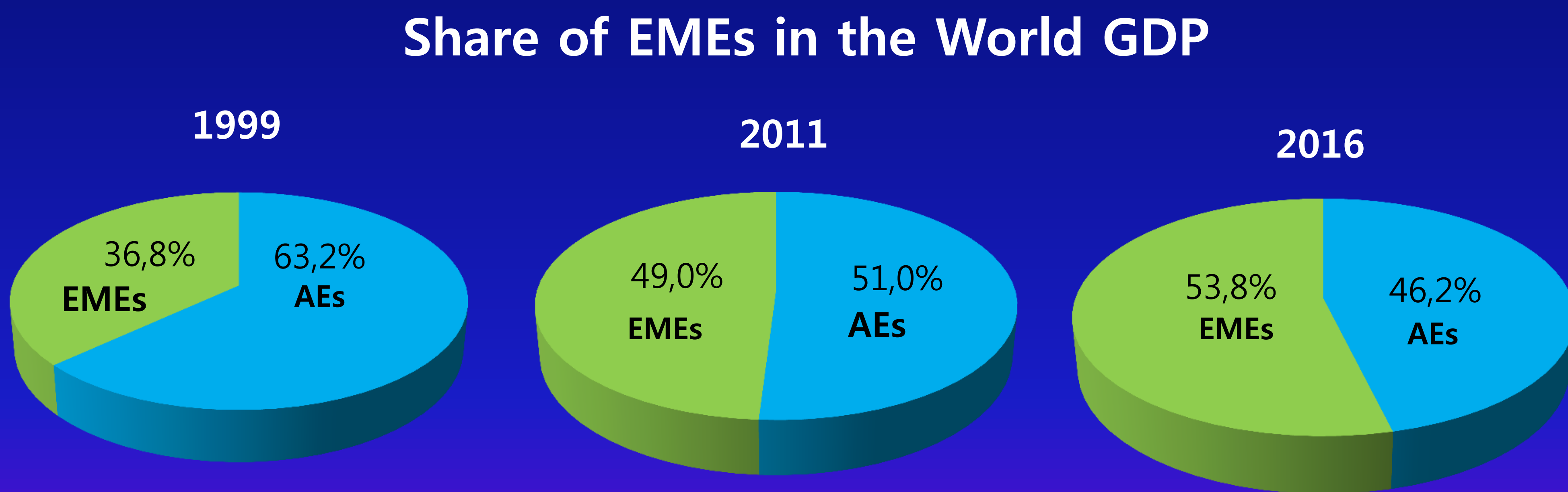
Greater Role of EMEs Expected

- **EMEs share in the world GDP has risen to 50% by 2011 and expected to reach 54% by 2016**



Source: IMF WEO

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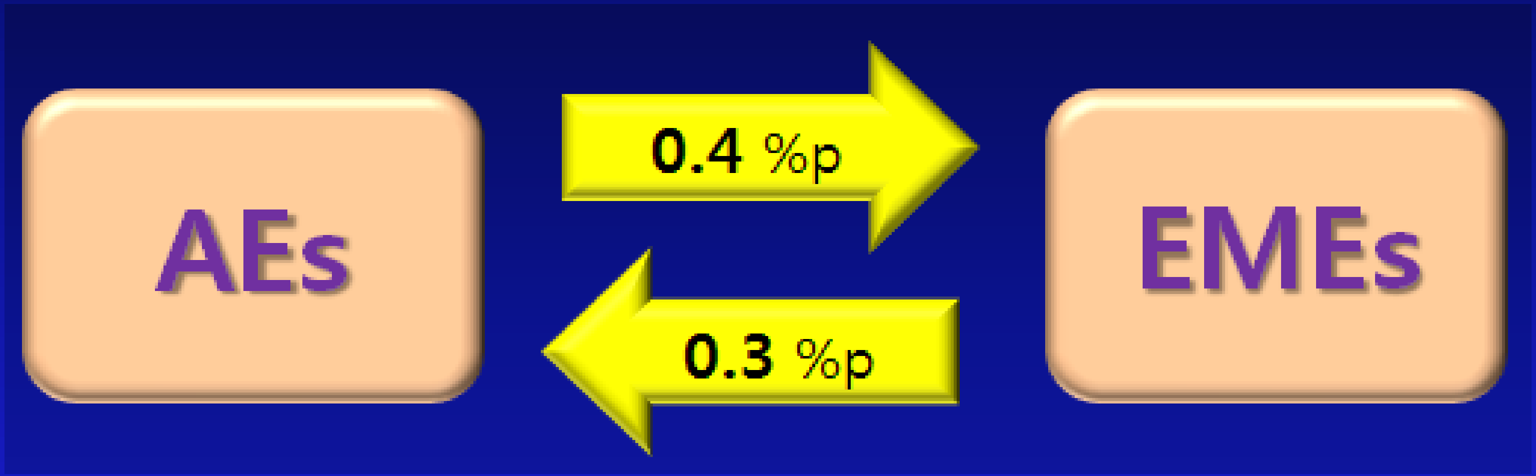
Positive Growth Spillovers

- **Growth spillover effect of 1% per capita GDP increase**



Note: Figures are the result of growth regressions using 5 yr. non-overlapping averages of the variables
Source: BOK staff's estimation

Determinants of L-R Growth: AMEs

Dependent variable=per capita GDP growth rate

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Gov. debt /GDP ratio		-0.08 [1.76]*					
Financial reform[1]			0.62 [2.01]**				
Labor market rigidity[2]				0.04 [0.90]			
Trade openness[3]					0.11 [3.10]***		
Social safety net[4]						-0.03 [1.37]	
Financial deepening[5]							0.02 [1.28]
Log per capita GDP of EMEs	0.30 [6.58]***	0.29 [3.19]***	0.26 [3.92]***	0.27 [2.66]**	0.27 [5.58]***	0.27 [6.33]***	0.27 [5.86]***
No. of obs.	80	76	71	68	80	68	80
No. of country	20	20	18	17	20	17	20

Note: 1. Financial reform index (0~21) developed by Abiad et al. (2010)
2. Employment protection legislation index (1~6) developed by OECD and Botero et al. (2004)
3. Sum of export and import to GDP ratio
4. Unemployment benefit to GDP ratio
5. Domestic credit to GDP ratio
* Other control variables (not reported) include log per capita GDP at t-1, gross fixed capital formation to GDP ratio, working age population to total population ratio, tertiary education completion ratio (Barro and Lee 2010), and log CPI. All the variables are 5-year non-overlapping averages for the period of 1980~2010. The system GMM is used for the estimation.

Source: BOK staff's analysis

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Determinants of L-R Growth: EMEs

Dependent variable=per capita GDP growth rate

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Gov. debt /GDP ratio		-0.19 [2.27]**					
Financial reform[1]			0.94 [1.96]*				
Labor market rigidity[2]				-0.11 [2.31]**			
Trade openness[3]					0.12 [2.45]**		
Social safety net[4]						0.43 [0.47]	
Financial deepening[5]							0.02 [2.22]**
Log per capita GDP of AEs	0.37 [2.89]***	0.39 [2.75]**	0.39 [2.98]***	0.39 [2.39]**	0.39 [2.53]**	0.35 [2.77]**	0.27 [2.31]**
No. of obs.	96	84	87	79	96	40	96
No. of country	26	26	24	22	26	13	26

Note: 1. Financial reform index (0~21) developed by Abiad et al. (2010)
2. Employment protection legislation index (1~6) developed by OECD and Botero et al. (2004)
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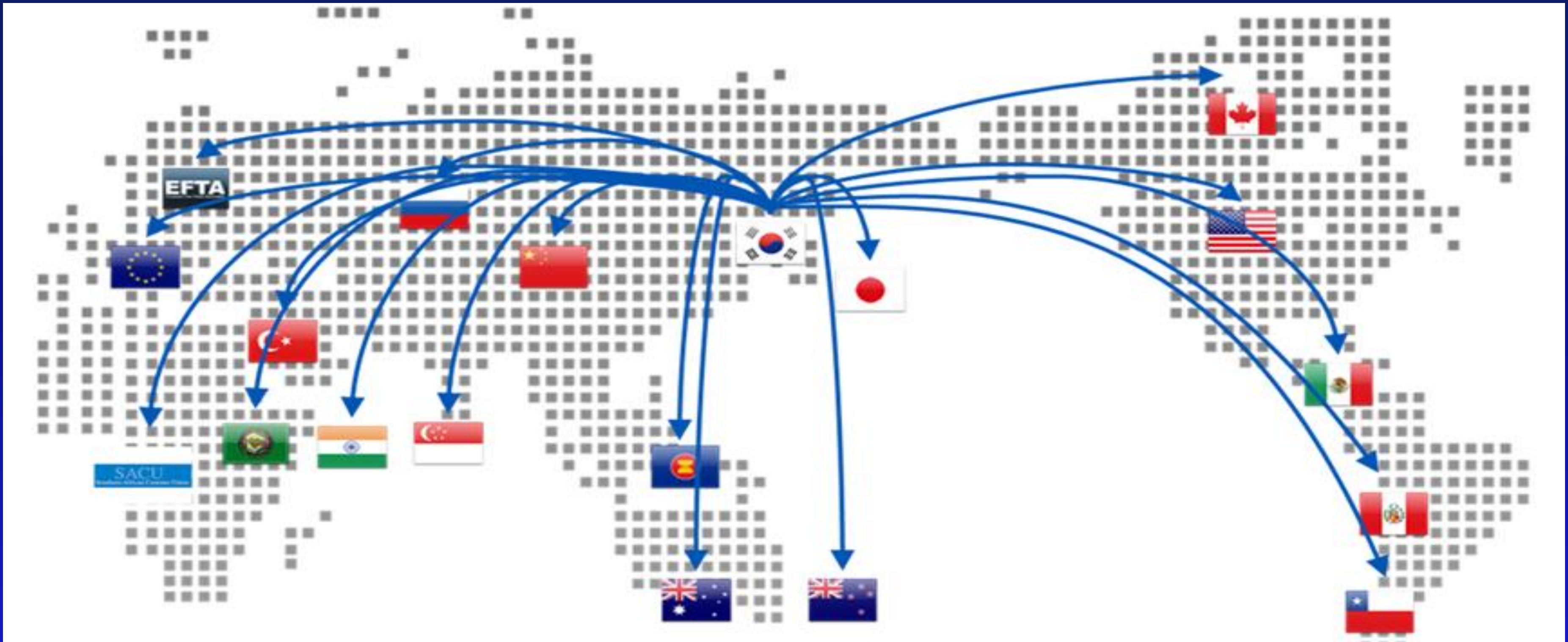
Source: BOK staff's analysis

Growing out of Great Recession: To-do List

- Address fiscal problems through reforms and wise use of fiscal space if available
- Minimize negative financial spillovers by putting in place backstopping framework for financial stability with sufficient public resources
- Trade and financial protectionism should be rejected decisively by all

Free Trade Agreements of Korea



Entered into force
45 countries
in 8 regions

Underway
12 countries
in 7 regions

On the agenda
16 countries
in 10 regions

Source : http://ftahub.go.kr

Growing out of Great Recession: To-do List

- More research about unintended consequences of new financial regulatory framework

- Strengthen global financial safety nets and macro-prudential framework

Macro-prudential Framework for FX Risk of Korea

- **Introducing cap on FX derivative positions (since Oct. 2010), strengthened (July. 2011)**
  - 50% → 40% for domestic banks, 250% → 200% for foreign bank branches
- **Restoring tax on foreigner's bond investment (Jan. 2011)**
  - Reintroducing withholding taxes−14% and 20%–on interest income and transfer gain, respectively
- **Macro-prudential Stability Levy (since Aug. 2011)**
  - Levied on non-deposit FX liabilities of banks

IV Role of Central Banks

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Central Bank's Role for Growth

- Major central banks' policy should return to normal for price and financial stability
- Prevent negative financial spillovers and pre-plan orderly withdrawal of excess liquidity
- G20 can be a useful forum at hand for discussing monetary coordination
- Multilateral perspective in policy making through a global institution (e.g., IMPC)

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IV Concluding Remarks

Concluding Remarks

- World economy at a crossroad
- Need a global solution for sustainable growth
- Take advantage of positive growth spillovers while minimizing negative financial spillovers
- International cooperation is key

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Vielen Dank