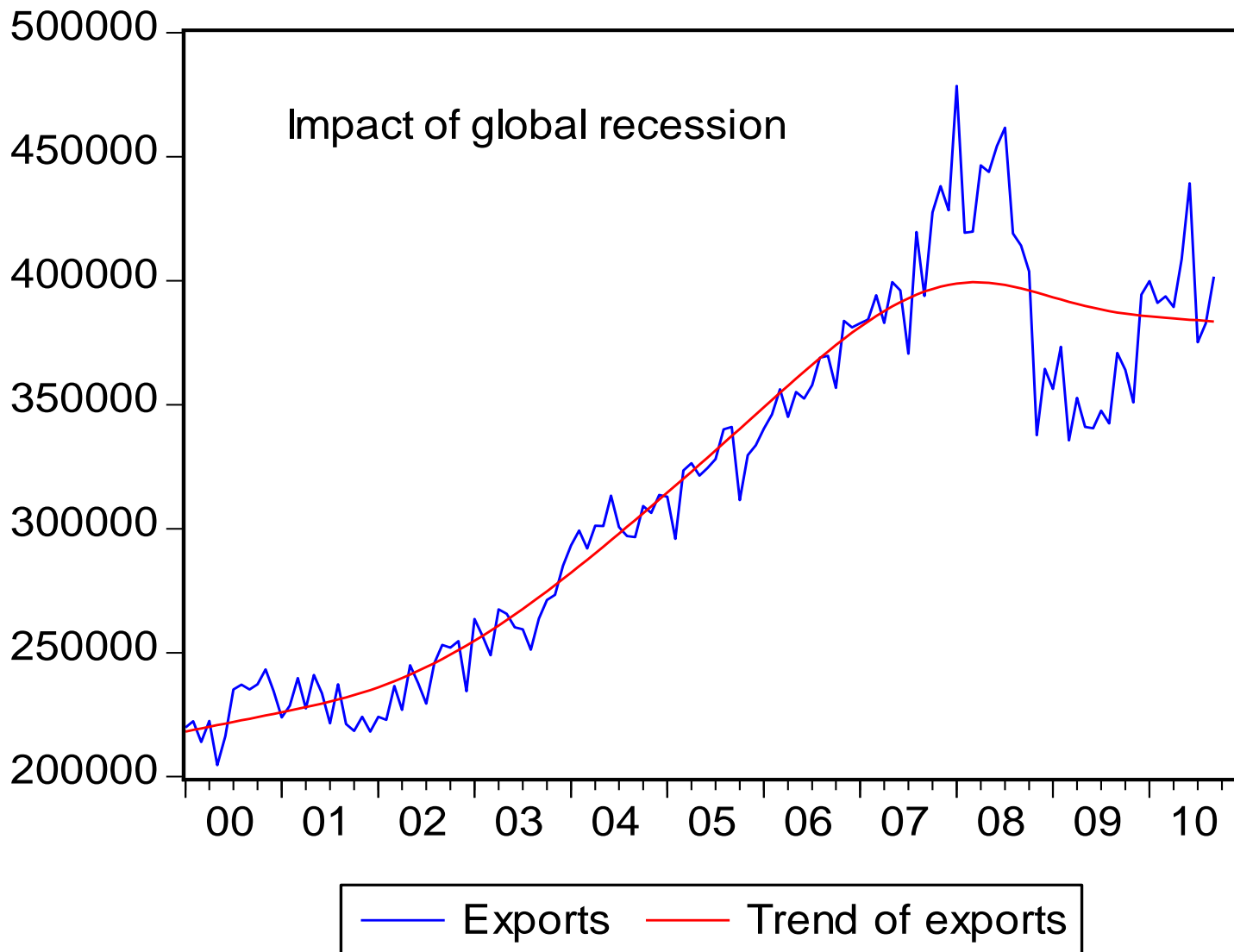


# EE460: Fiscal Policy for Growth and Stability

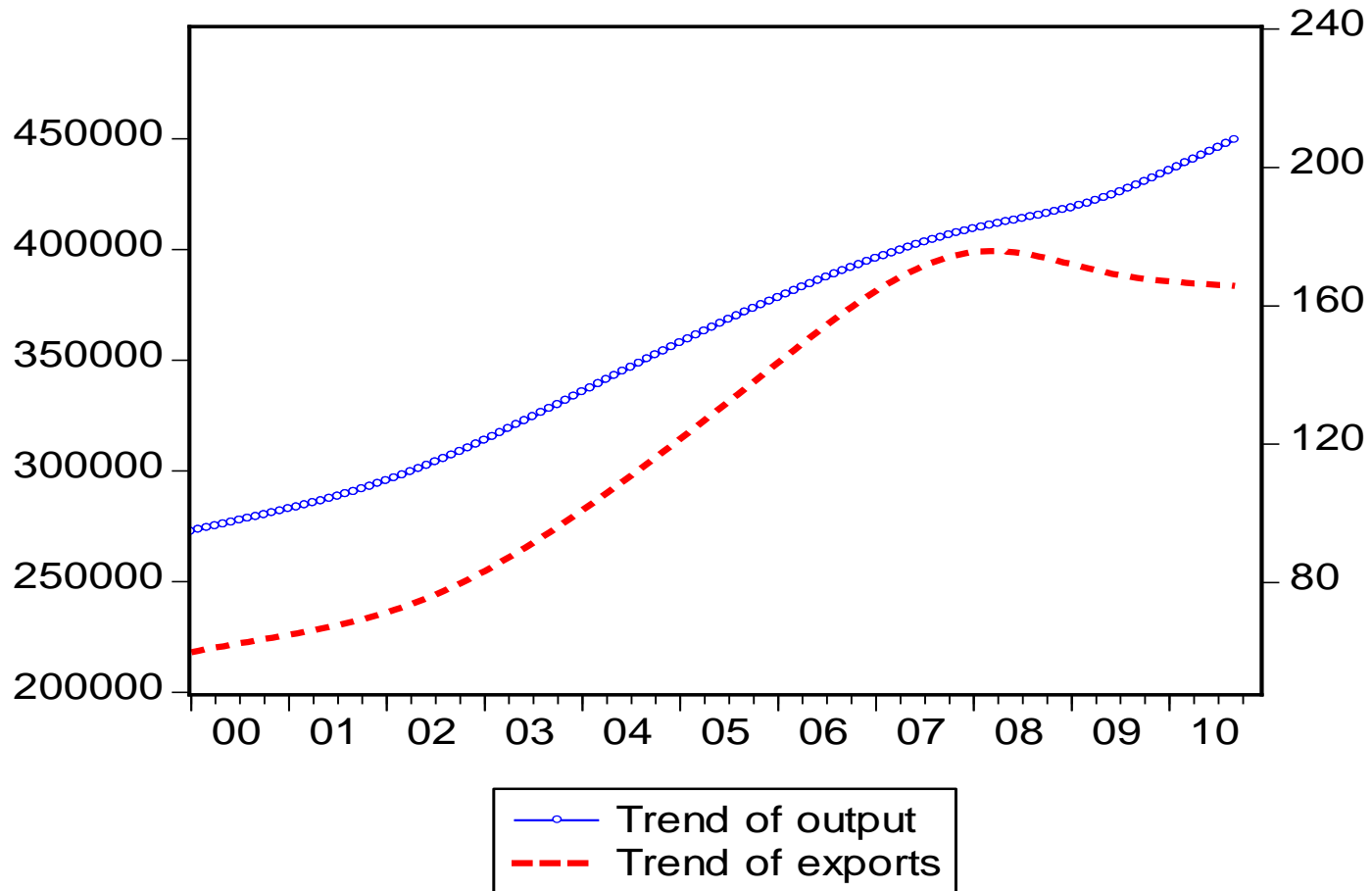
Bhanupong  
Lecture 26

# Outline

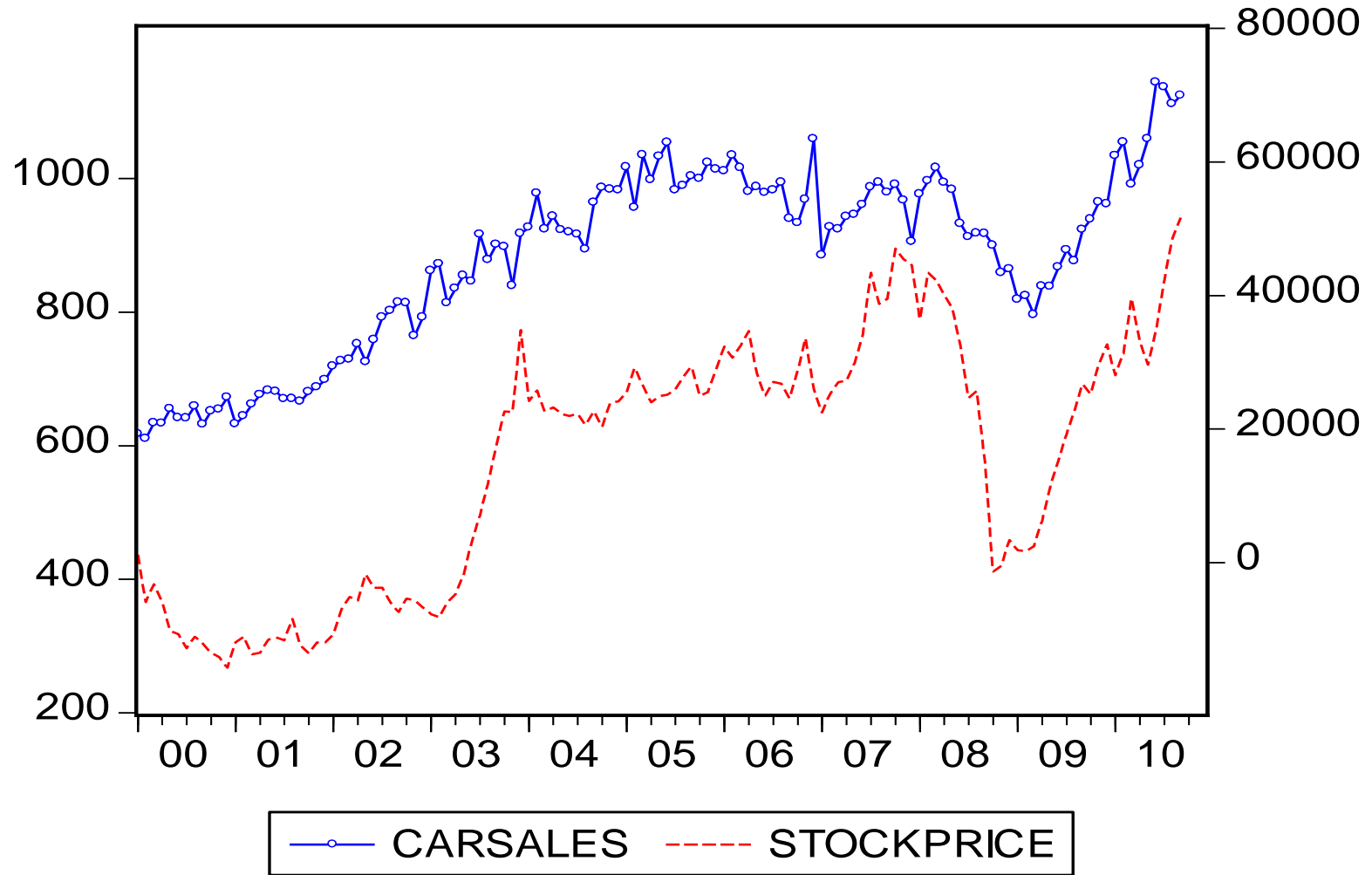
- **Fiscal stimulus and global recession**
- **Spending and taxation: long-term relationship**
- **Long-term and cyclical movements**
- **Rules for fiscal sustainability**
- **Automatic fiscal stabilizers**
- **Fiscal policy and economic growth**



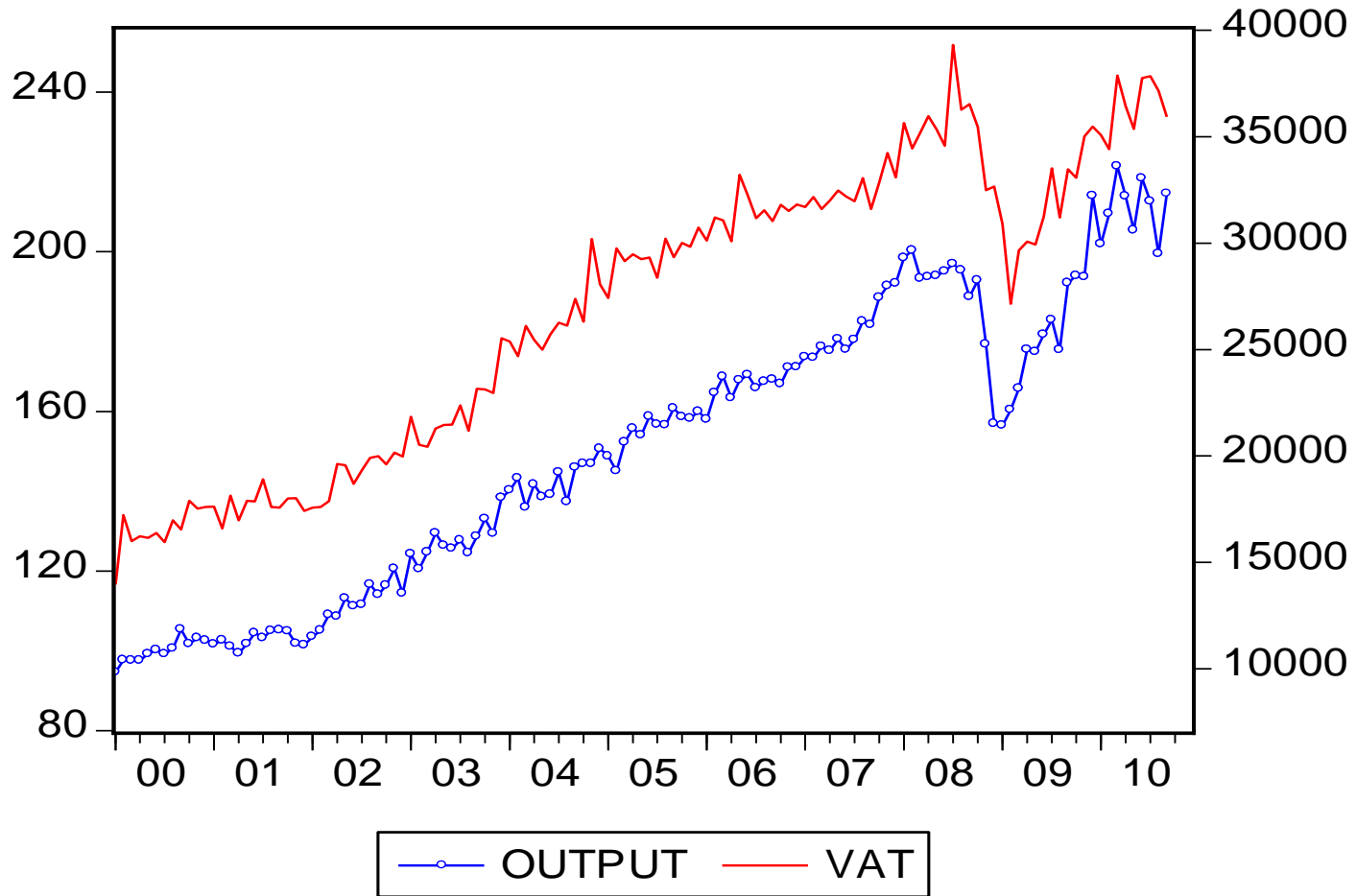
# Long-term paths of output and exports



# Consumer durables and asset prices



# Manufacturing output and value added tax



# Competing hypotheses

- (1) Buchanan and Wagner (1978): Higher taxes lead to more government spending.
- (2) Peacock and Wiseman (1979): Temporary increases in government spending lead to permanent tax increases (spend-and-tax hypothesis).
- (3) Meltzer and Richard (1981): Fiscal synchronization hypothesis: spending and taxes adjust as the public chooses an optimal package of taxes and government spending.

# Plausible Causality

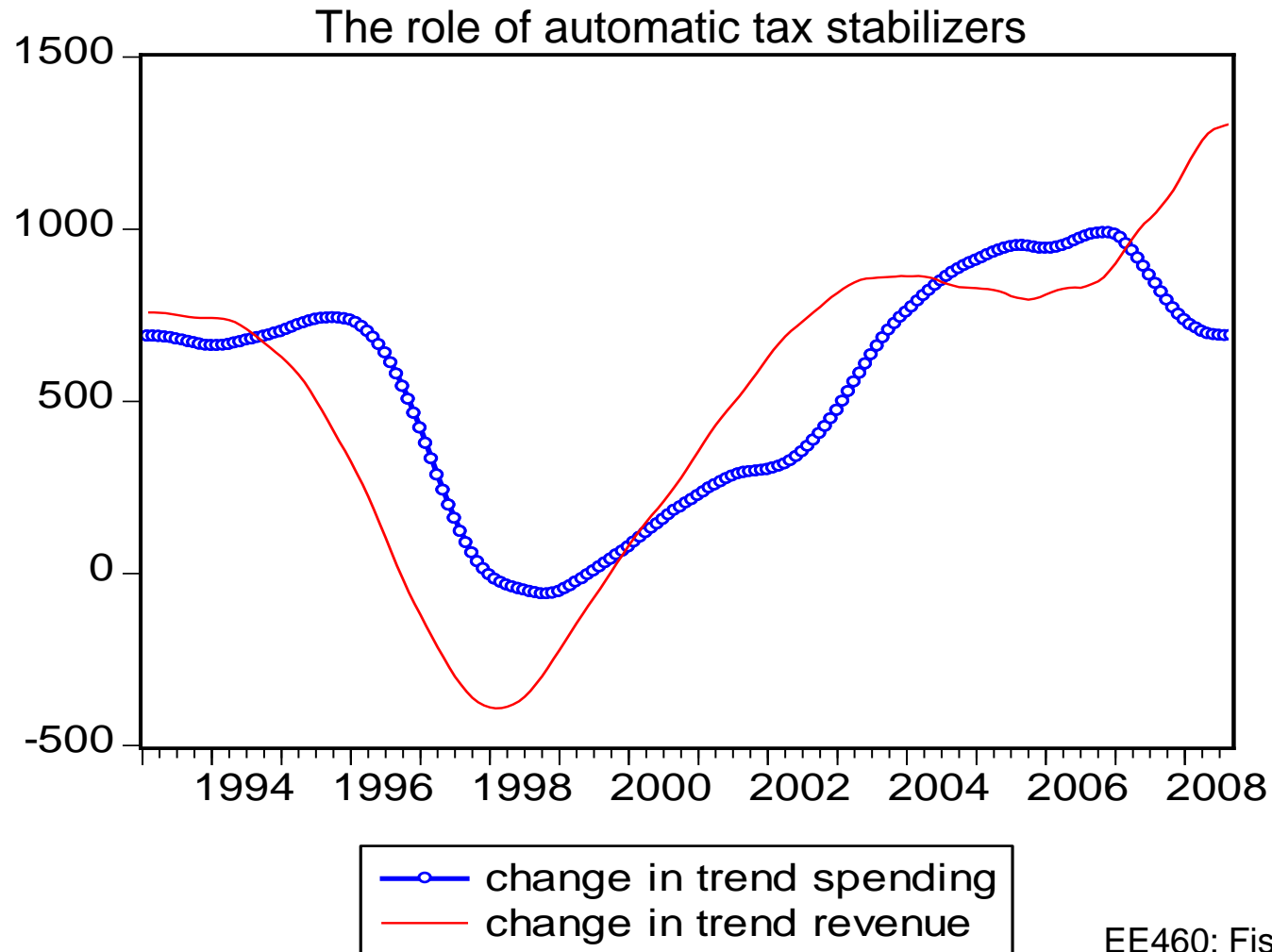
$$R \rightarrow G \quad (1)$$

$$G \rightarrow R \quad (2)$$

$$G \Leftrightarrow R \quad (3)$$

Null hypothesis	F-Statistic	Probability
$\Delta (G)$ does not Granger Cause $\Delta(\text{TAX})$	2.23	0.11
$\Delta(\text{TAX})$ does not Granger Cause $\Delta (G)$	3.97	0.02

# Fiscal stance shown by structural budget deficit



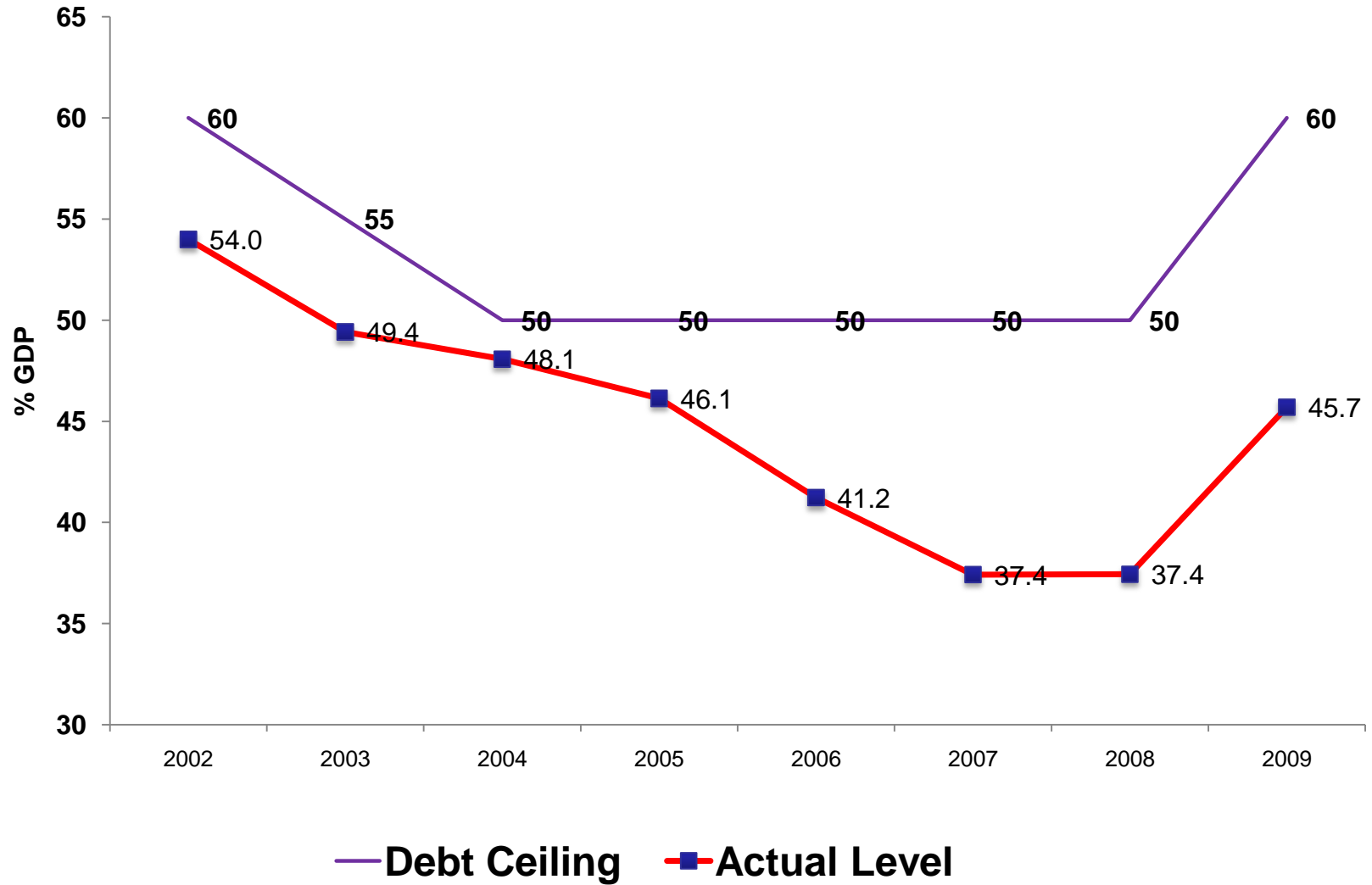
# Budget deficit and economic growth

- High deficits are associated with periods of low growth.
- High deficits are proxies for high public debt which imply **higher** taxes and **lower** public capital spending in the future.
- Large deficits are a symptom of macroeconomic **instability** which is detrimental to growth.

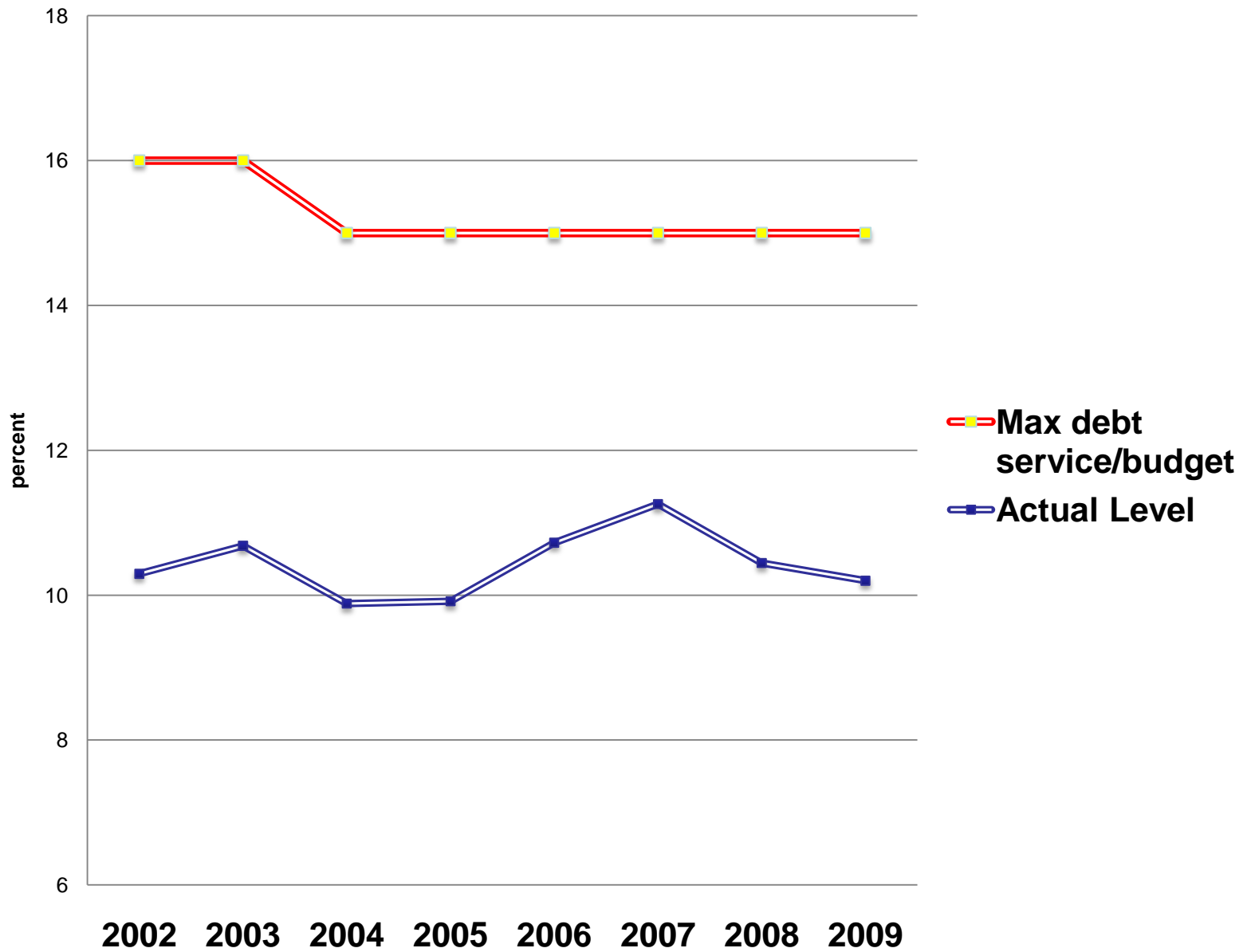
# Rules of fiscal sustainability

- Size of public debt
- Size of debt service
- Public capital vs. consumption expenditure
- Ratio of foreign debt-service to exports

# Regulation on Public Debt

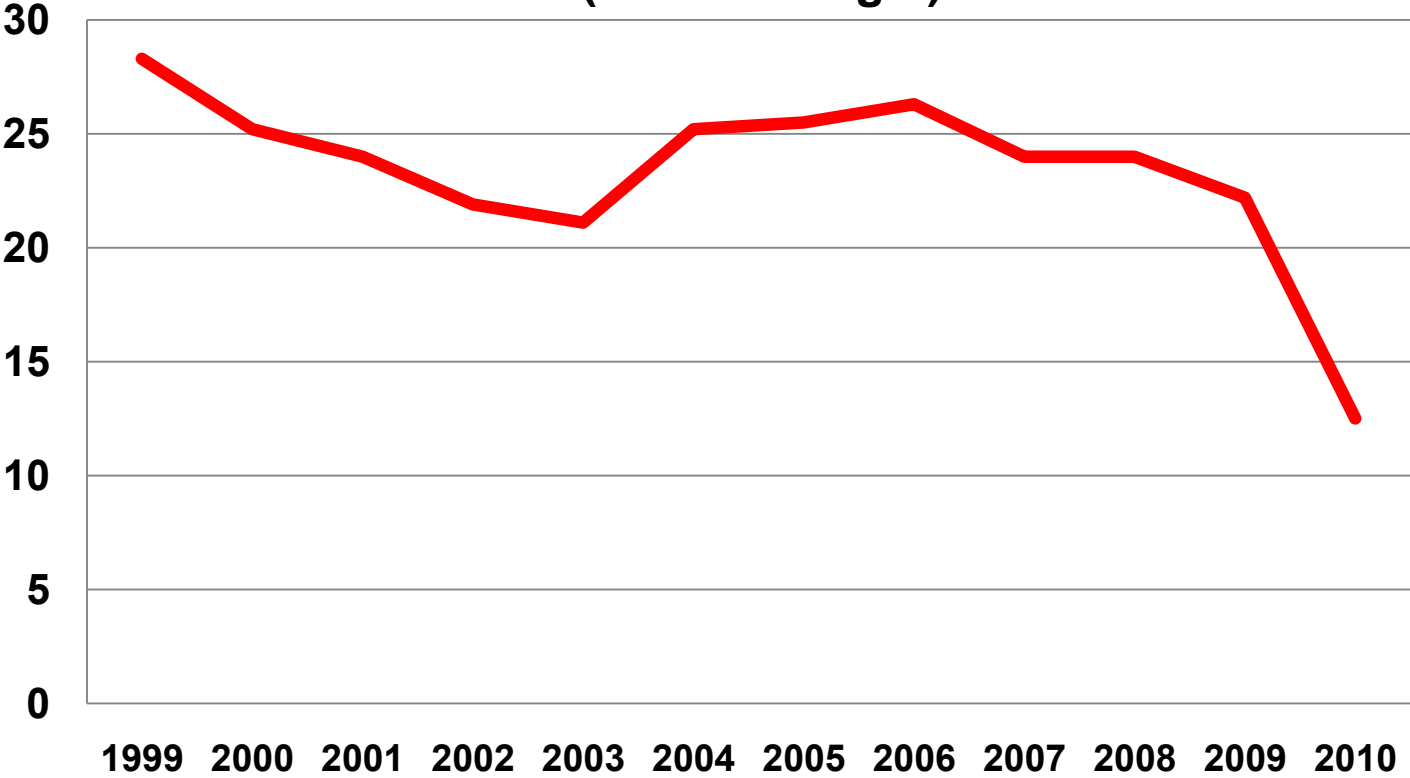


# Debt Service to Total Planned Spending



*Capital spending must not fall below 25% of total budget*

**Public capital expenditure  
(% total budget)**



# Estimated fiscal elasticities

2000-2005

	<b>expenditure</b>	<b>Tax</b>
Output	0.22	0.55
Price	1.27*	-1.1*

2006-Aug 2010

	<b>expenditure</b>	<b>Tax</b>
Output	-0.35	1.19*
Price	1.82	-1.89*

***A success in inflation control brings about fiscal stability***

# Inflation tax

- Public spending must be controlled during high inflation to avoid fueling inflationary pressure.
- Inflation can be spiraling if the government insists on maintaining the level of real expenditure during the time of high inflation.

# Automatic fiscal stabilizers

- Revenue elasticity with respect to output is ***greater*** than expenditure elasticity.
- Increasing tendency for budget surplus (deficit) during booms (slump)
- Inflation reduces tax revenue, but it does not significantly increase public spending.
- The government cannot rely on inflation tax.
- There is a deep-seeded belief that taxation, public investment, and other aspects of fiscal policy can contribute to growth and to during stagnation.

- If a country has established fiscal automatic stabilizers, fiscal policy can be stabilizing and it does not have to depend on a long-delayed budgetary process.
- Expansionary fiscal policy employed to counteract short-term fluctuations must be withdrawn after the economy is on its recovery path.
- If not, it can be a burden to the government and result in adverse impact on the economy.
- The risk and adverse consequences of withdrawal of fiscal spending consequences must be considered before implementing fiscal expansion in response to insufficient aggregate demand.

# Public consumption and investment

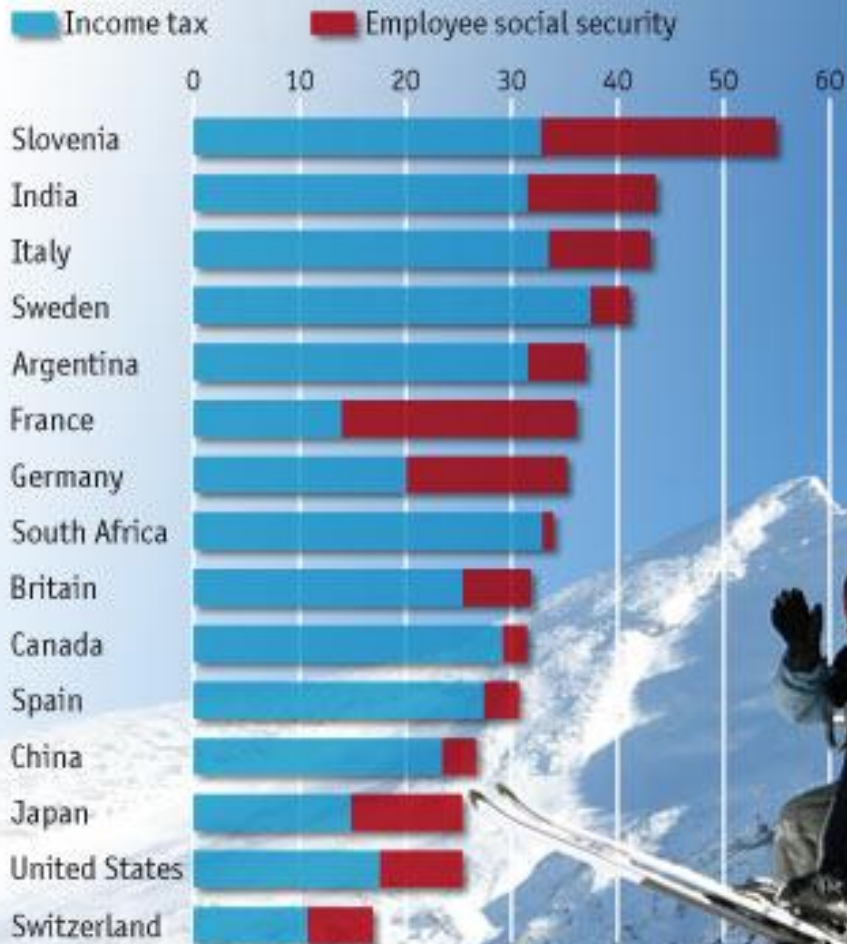
- Taxes on investment and income have a detrimental effect on growth since taxes reduce the private return to accumulation.
- **Government consumption has no permanent impact on growth** since the productivity of the private sector is unaffected.
- **Public investment** has positive impact since it enhances the productivity of the private sector.

# Capital vs. current spending

- Structure of public expenditure matters for long-term growth.
- Rising share of current spending is detrimental to long-term growth in the long-run.
- How to finance capital and current spending

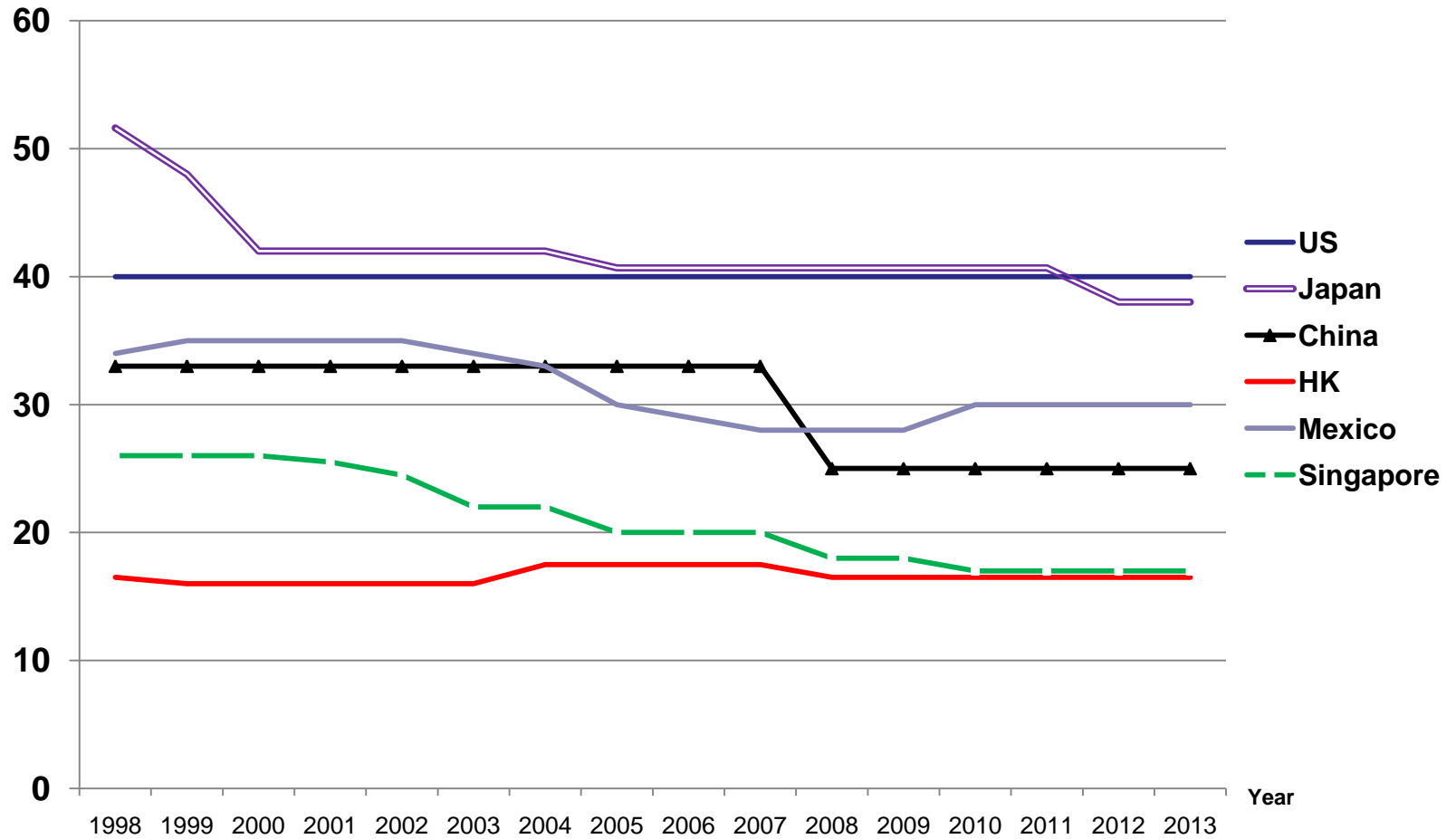
## Effective tax rates

On gross income of \$100,000, May 2009, %



Source: KPMG

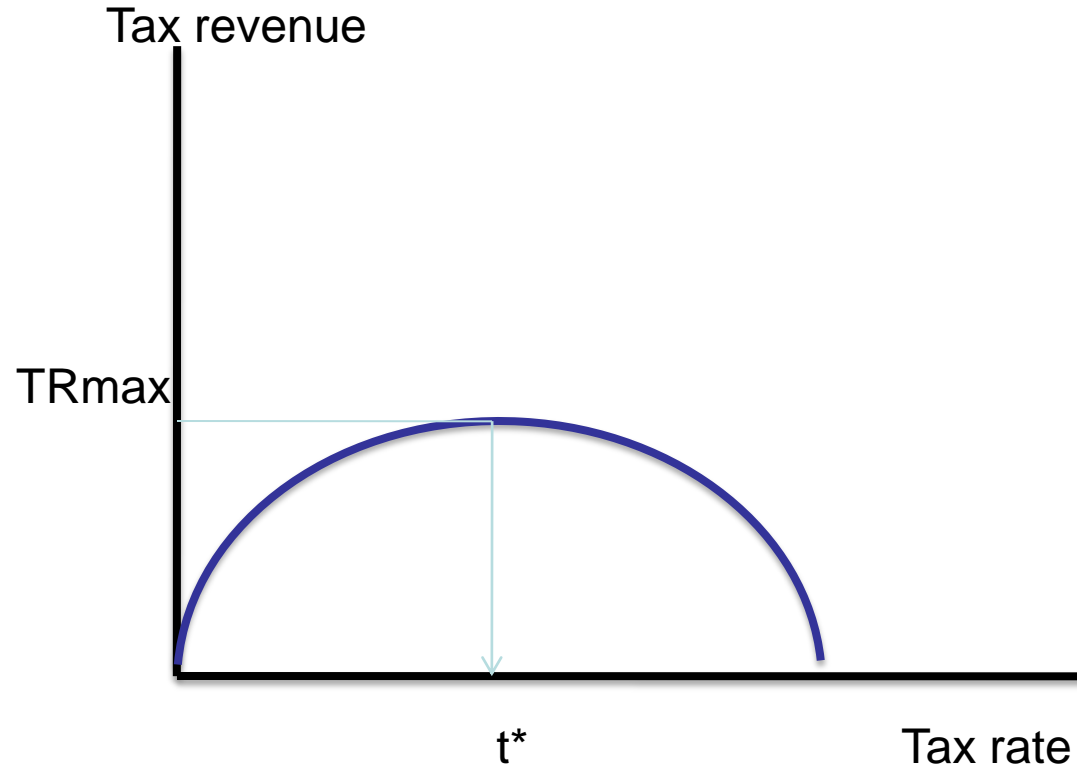
# Average Corporate Tax Rates



## Average Corporate Tax Rates



# Laffer curve: tax rate and tax revenue relationship



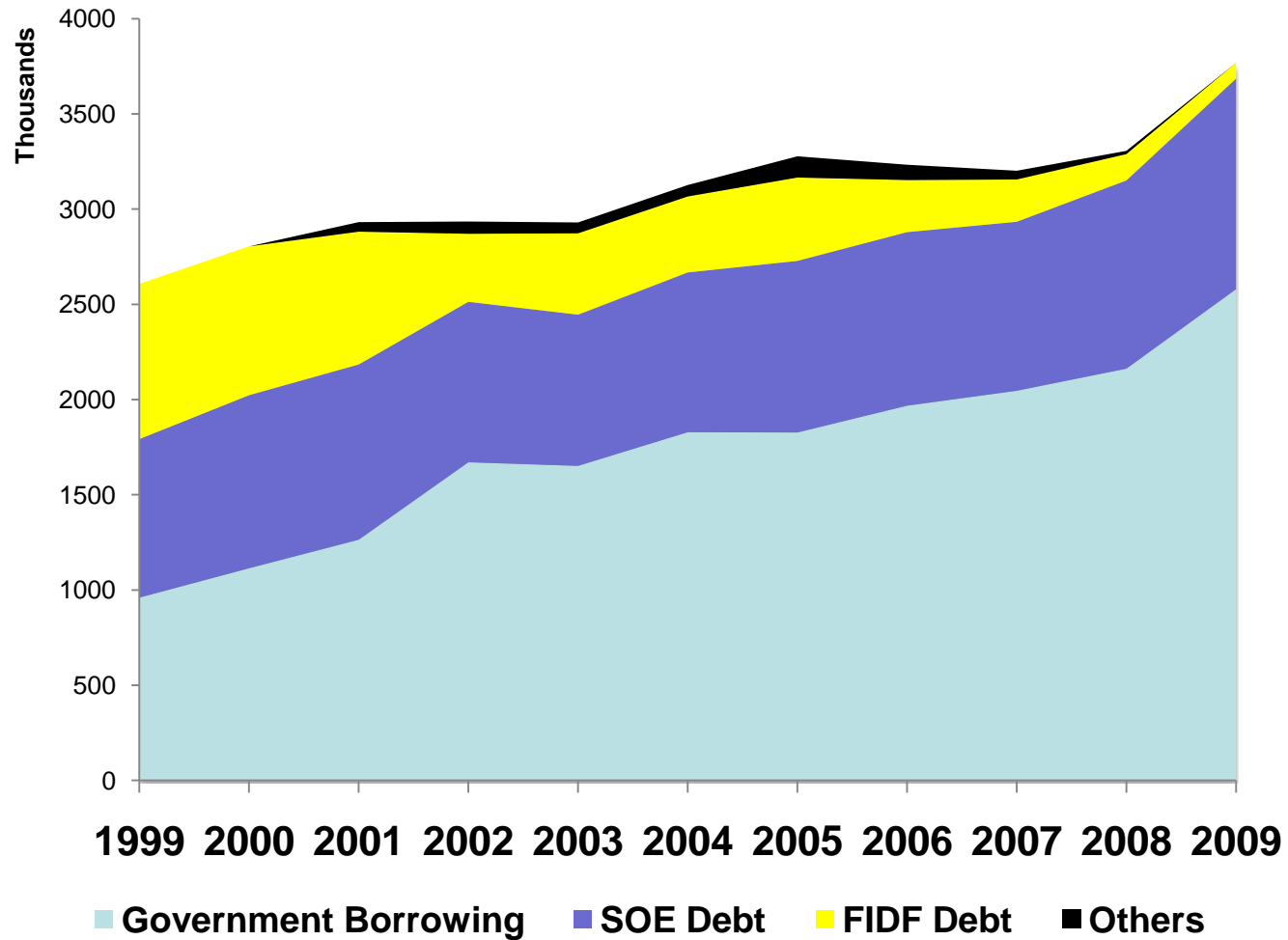
# Can a tax reduction increase revenue?

- The shape of the Laffer curve is determined by the elasticity of labor with respect to the net wage.
- Critics of supply-side economics argue that tax reductions can lead to increased revenue is absurd.
- Which side on the Laffer curve (left or right of the point  $t^*$ ) the economy is operating?
- Even if tax revenues fail to increase when tax rates fall, it does not mean that tax reduction is necessarily undesirable.

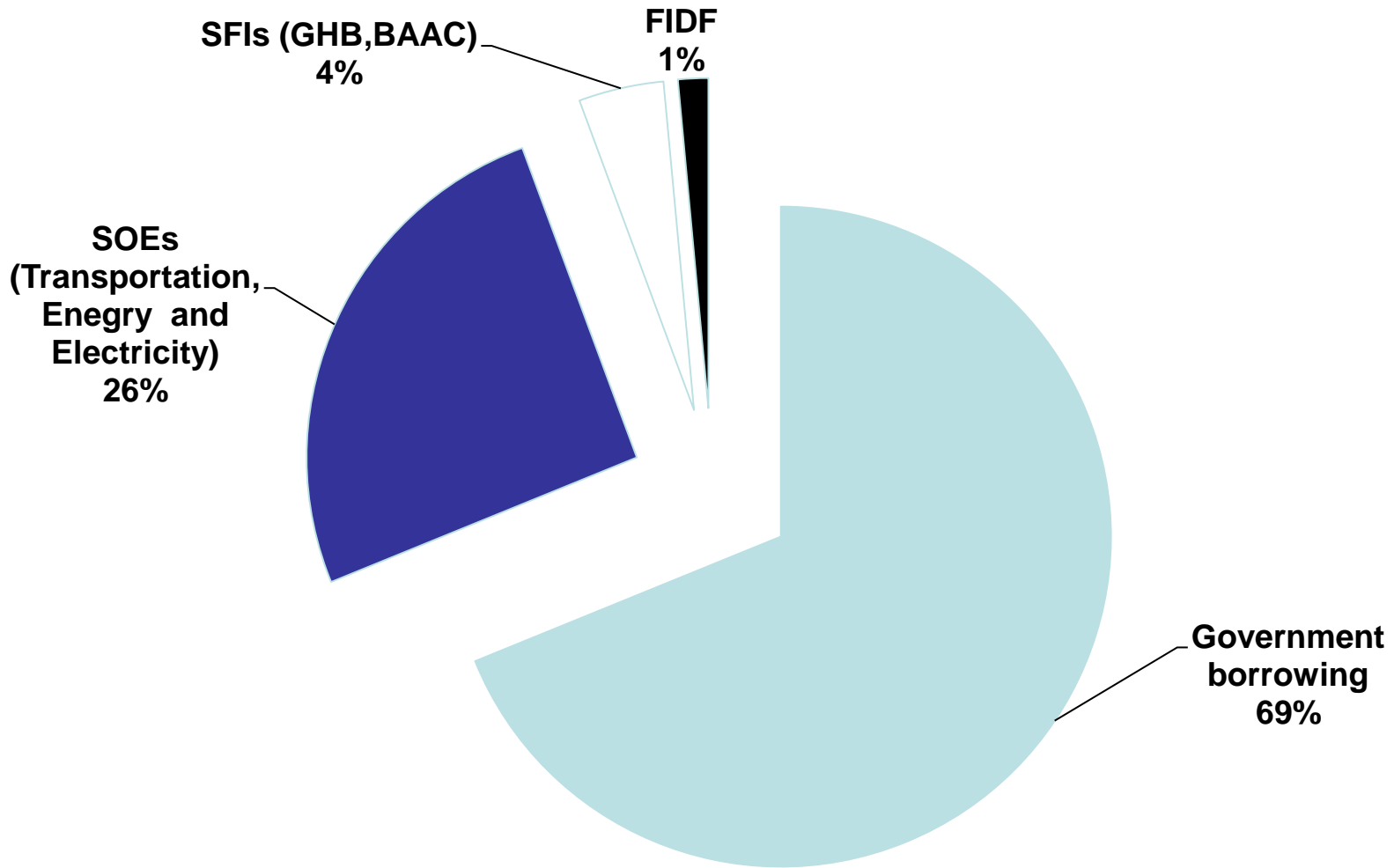
# Stylized facts

- **The level of development is related fiscal structure: poor countries rely more on trade taxes, developed countries rely on income taxes.**
- **Fiscal policy is influenced by the scale of the economy (population and GDP level).**
- **Investment in transport and communication is consistently correlated with growth.**
- **Public spending on infrastructure has supernormal returns.**
- **The effects of taxation on growth are difficult to insolate.**
- **Is there any limit to government spending?**
- **Fiscal space is impaired by high debt-GDP ratio.**

## Public Debt by Type (Million Baht)

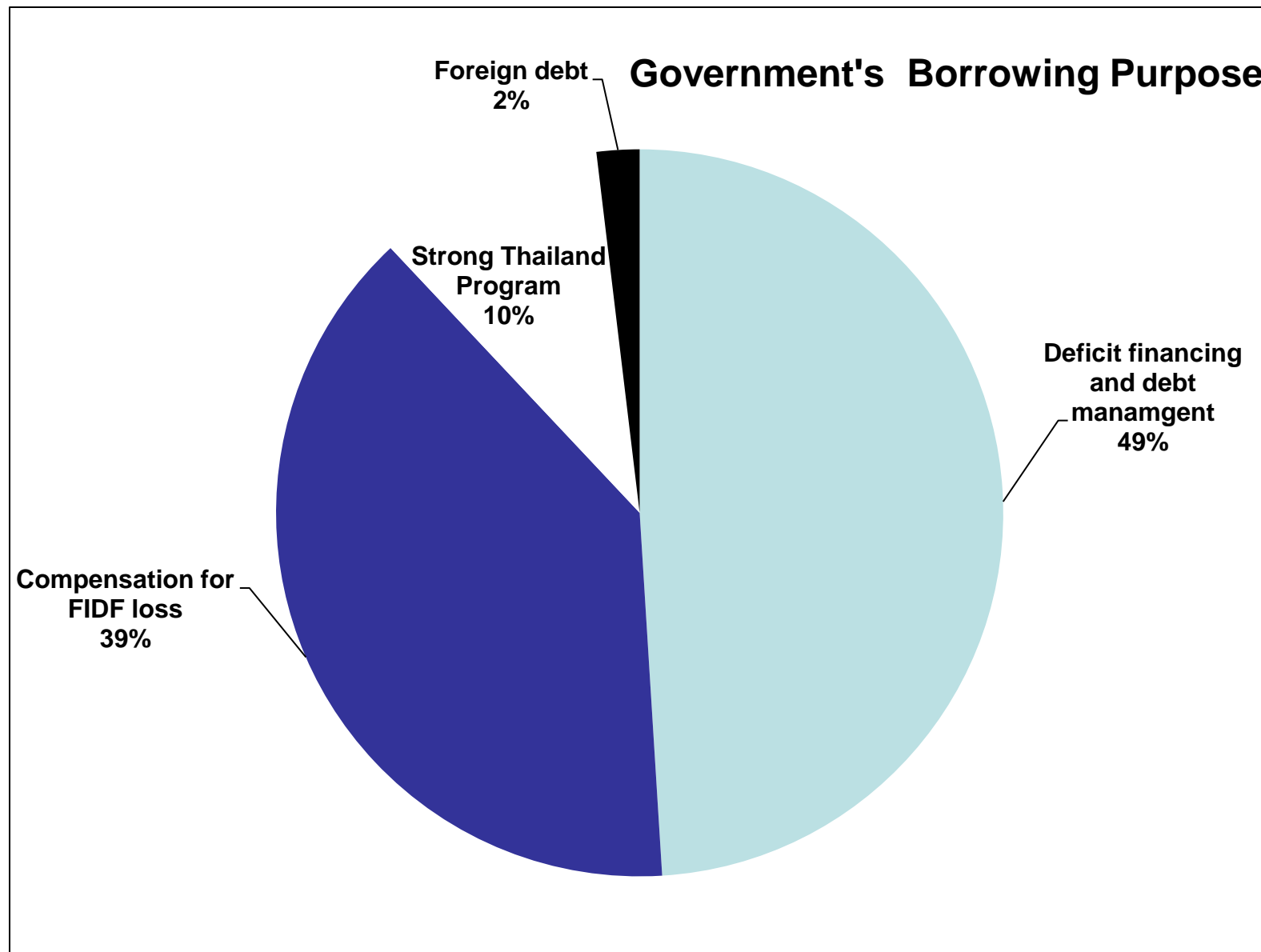


# Thailand's Public debt 31 October 2010



EE460: Fiscal Policy

Source: Public Debt Management Office



Source: Public Debt Management Office

EE460: Fiscal Policy

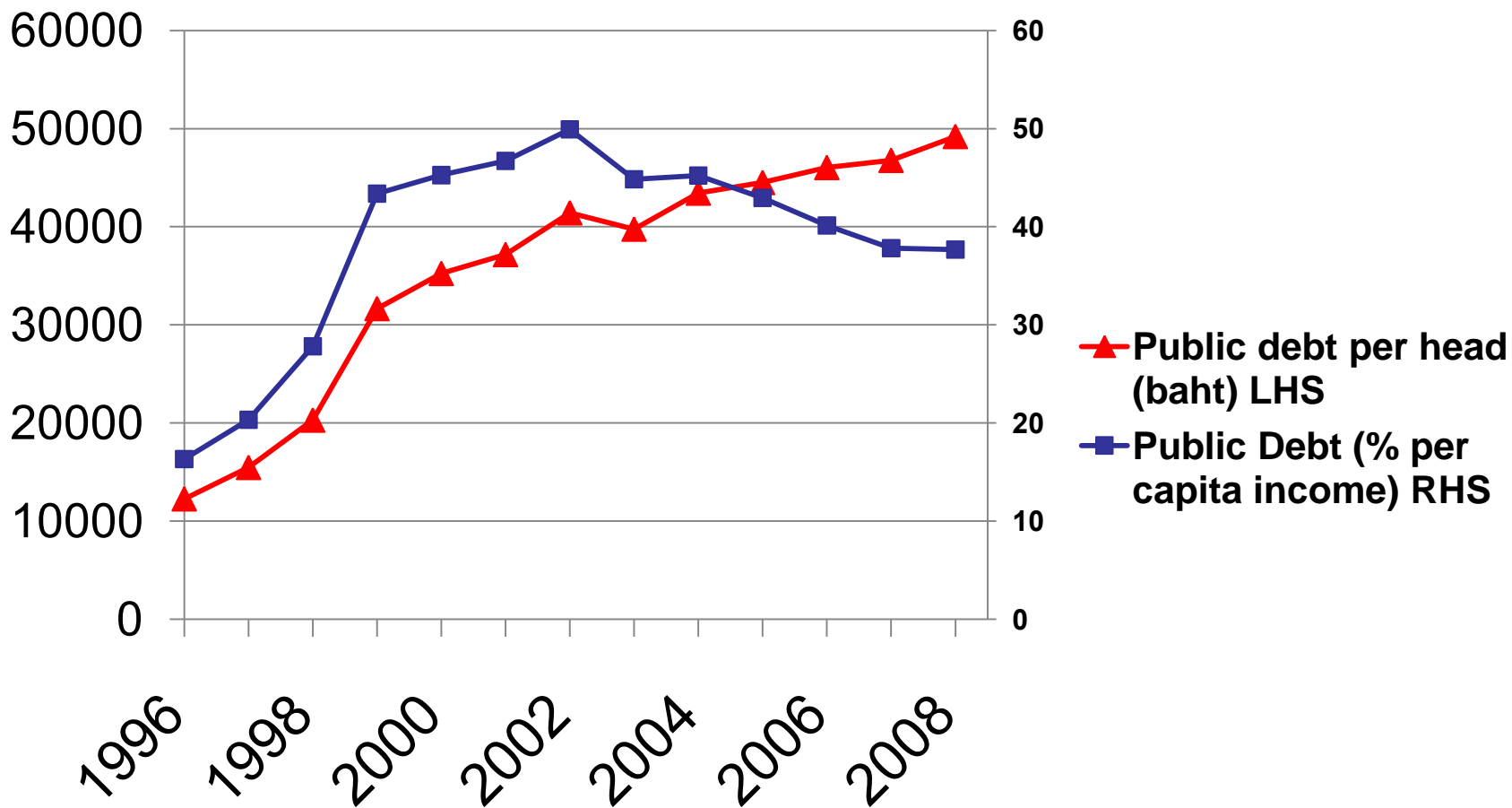
# To stabilize the public debt

- To keep the Debt-to-GDP constant, the government must increase its primary surplus in line with the increase in  $(r-g)$ .
- The spending cuts or tax increases are likely to prove politically costly, generating even more political uncertainty and the need for an even higher interest rate.
- A sharp fiscal contraction is likely to lead to a recession, decreasing the growth rate.

$$\frac{B_t}{Y_t} - \frac{B_{t-1}}{Y_{t-1}} = (r - g) \left( \frac{B_{t-1}}{Y_{t-1}} \right) + \frac{(G_t - T_t)}{Y_t}$$

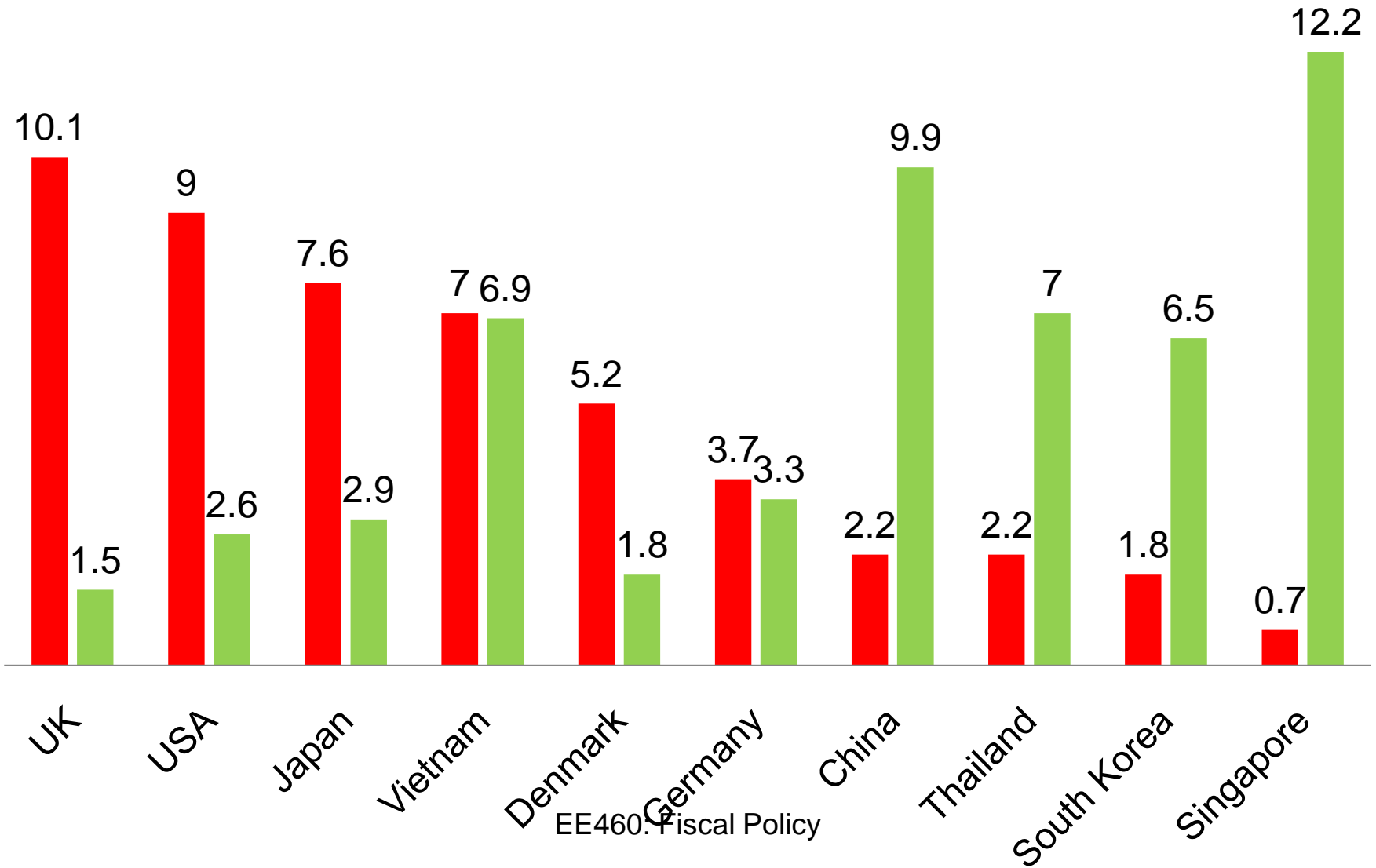
- The increase in the ratio of debt (B) to GDP will be larger,
- The higher the real interest rate (r)
- The lower the growth rate of output (g)
- The higher the initial debt ratio (B/Y)<sub>t-1</sub>
- The higher the ratio of the *primary deficit* to GDP (G-T)/Y

# Per capita public debt



# Budget deficit and GDP growth: 2010

■ budget deficit/GDP ■ growth



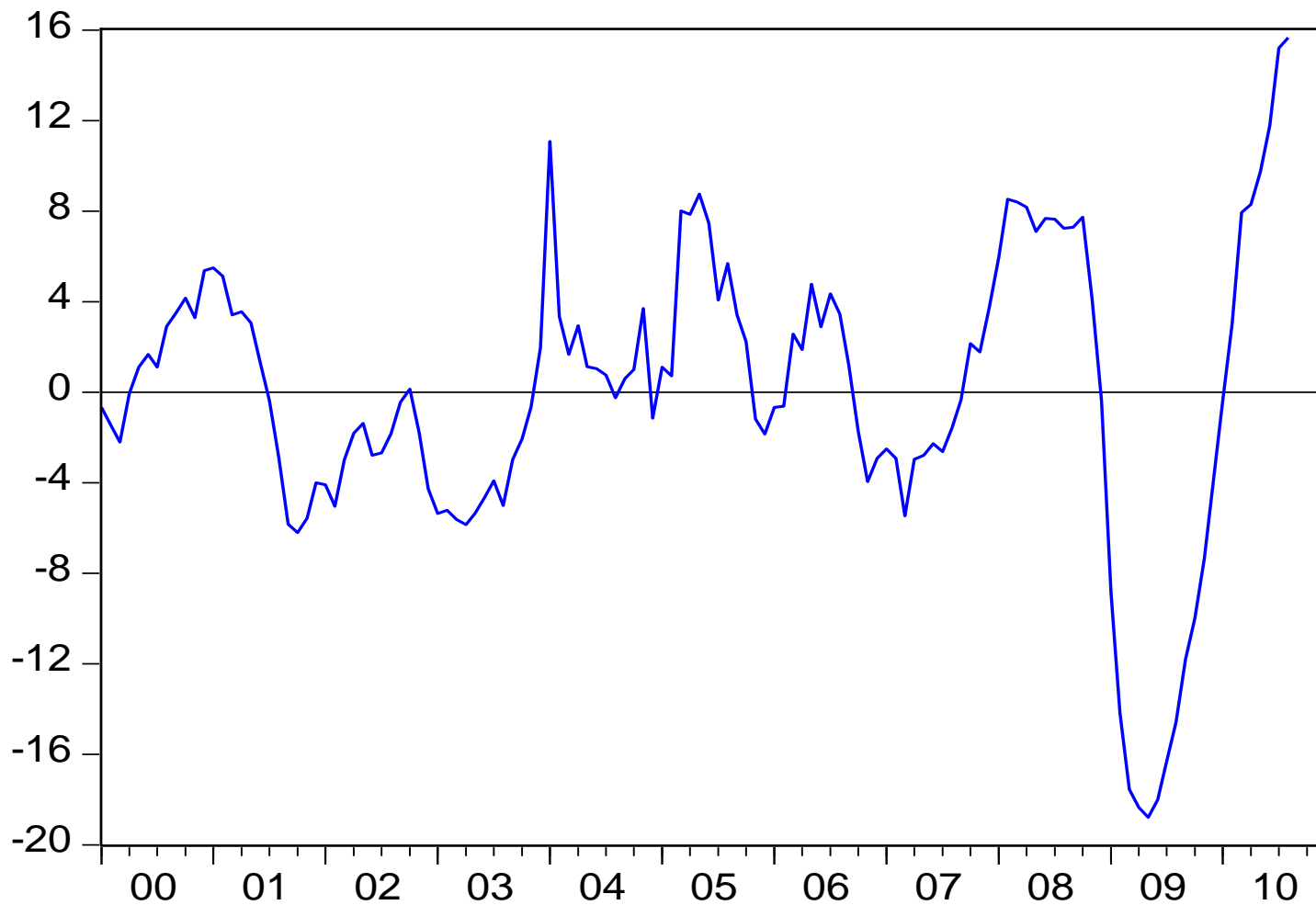
# The U.S. National debt

- Sometime early this year, the U.S. will reach the \$14.3 trillion national-debt ceiling imposed by law, which was voted by the Democratic Congress in February, not a single Republican voted in favor.
- The Congress must vote to extend the Treasury's borrowing authority otherwise there will be a government shutdown on April 9, 2011.
- The alternative is a potential default on the debt and a risk of global financial crisis.

# Will fiscal stimulus work?

- Fiscal policy was the only option left during uncertain time.
- Multiplier effect might be limited if the income transfer is regarded as transient.
- In a mild cycle, pessimistic expectations can turn a mild recession into a deep economic depression.

business confidence index (deviation from trend)



# Conditions for effective fiscal stimulus

- Well-timed
- Macroeconomic stability
- Fiscal sustainability to offset precautionary savings
- Well-targeted spending to ensure the largest demand impact
- Pervasive liquidity constraints

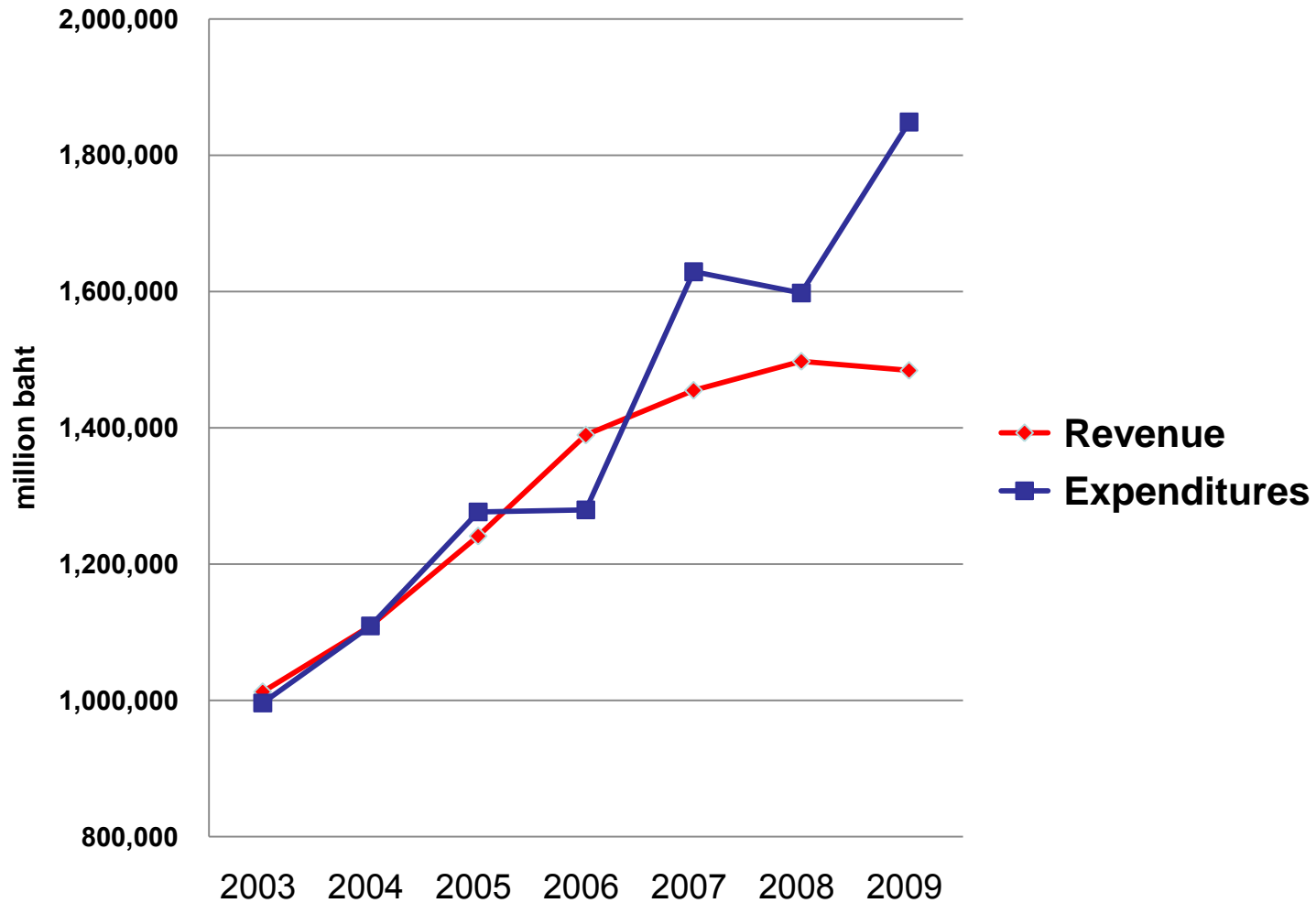
# Public debt burden

- In addition to 1.7 trillion baht FY 2010 budget, the government borrowed additional 800 billion baht to stimulate the economy.
- The average interest rate on the stimulus package is 4%.
- The additional borrowing costs extra debt service by 3 billion baht annually.

# Public debt and budget deficit

- Debt-to-GDP ratio has reached 40%
- Bonds are future tax liabilities.
- FY 2010, debt service amounted to 12.3% of the budget, 3% of which are principal repayments.
- Interest payments on public debt deprive spending on welfare and education.

# Thailand's fiscal stimulus



## Those who pay income tax

- Personal income tax collections at just 2% of GDP are particularly low, partly because only ***one-tenth*** of the workforce pays tax, while the corporate income tax base has been eroded through excessive exemptions and deductions.
- The IMF recommended the government remain committed to its plan of tax reform as tax revenue is too low.

# Concluding remarks

- Fiscal policy can become an effective means to spur growth during the time when consumer and investor confidence is strong.
- However, when business sentiment is low, expansionary impact of fiscal deficit will have minimal impact on the economy.

# Conclusion

- Rules of fiscal sustainability must be strictly obeyed.
- Tax instruments have become an important stabilizing tools, while public spending did not exhibit counter-cyclical response.
- Tax-financed budget deficit is less inflationary than bond financing deficit.

# Concluding remarks

- A sharp fiscal contraction is likely to lead to a recession, decreasing the growth rate.
- Private consumption and business confidence are crucial to sustainable recovery.
- Long-term growth is adversely affected by the slowdown in public investment.

# Fiscal space

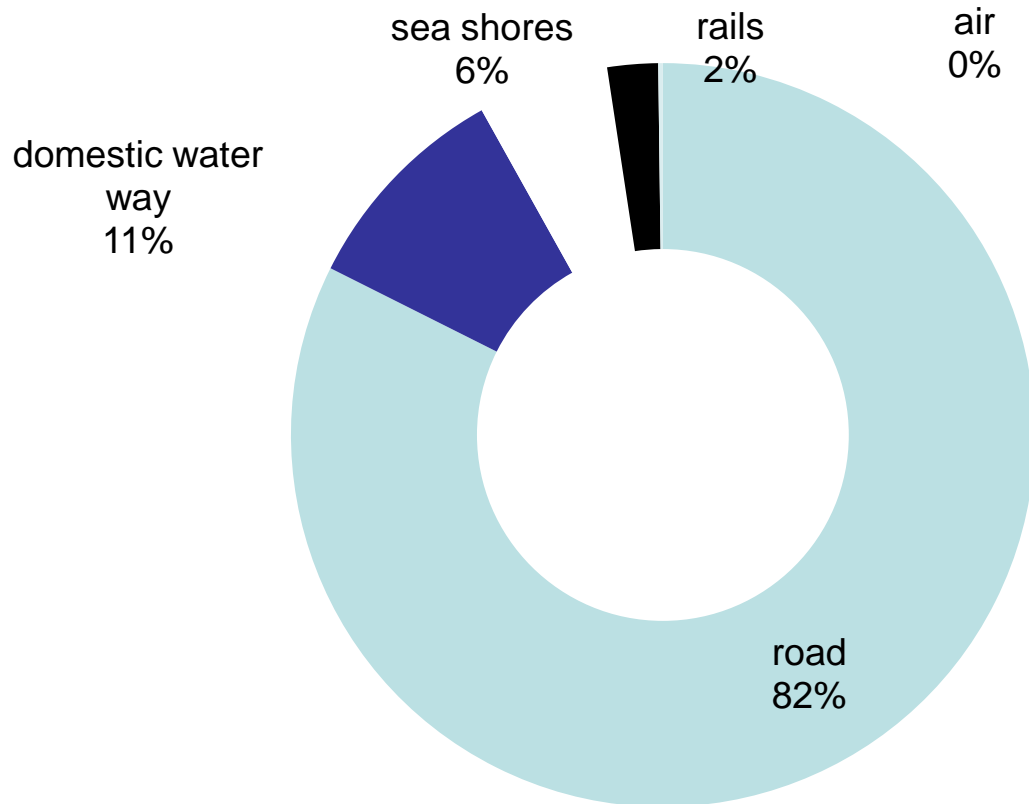
- Thailand's fiscal policy was conservative because spending was constrained by tax capacity.
- The reason behind this fiscal prudence is related to conservative budgetary laws. Debt-to-GDP is low, providing fiscal space for the government to counteract the future external shocks.

# Fiscal strategies for long-term growth

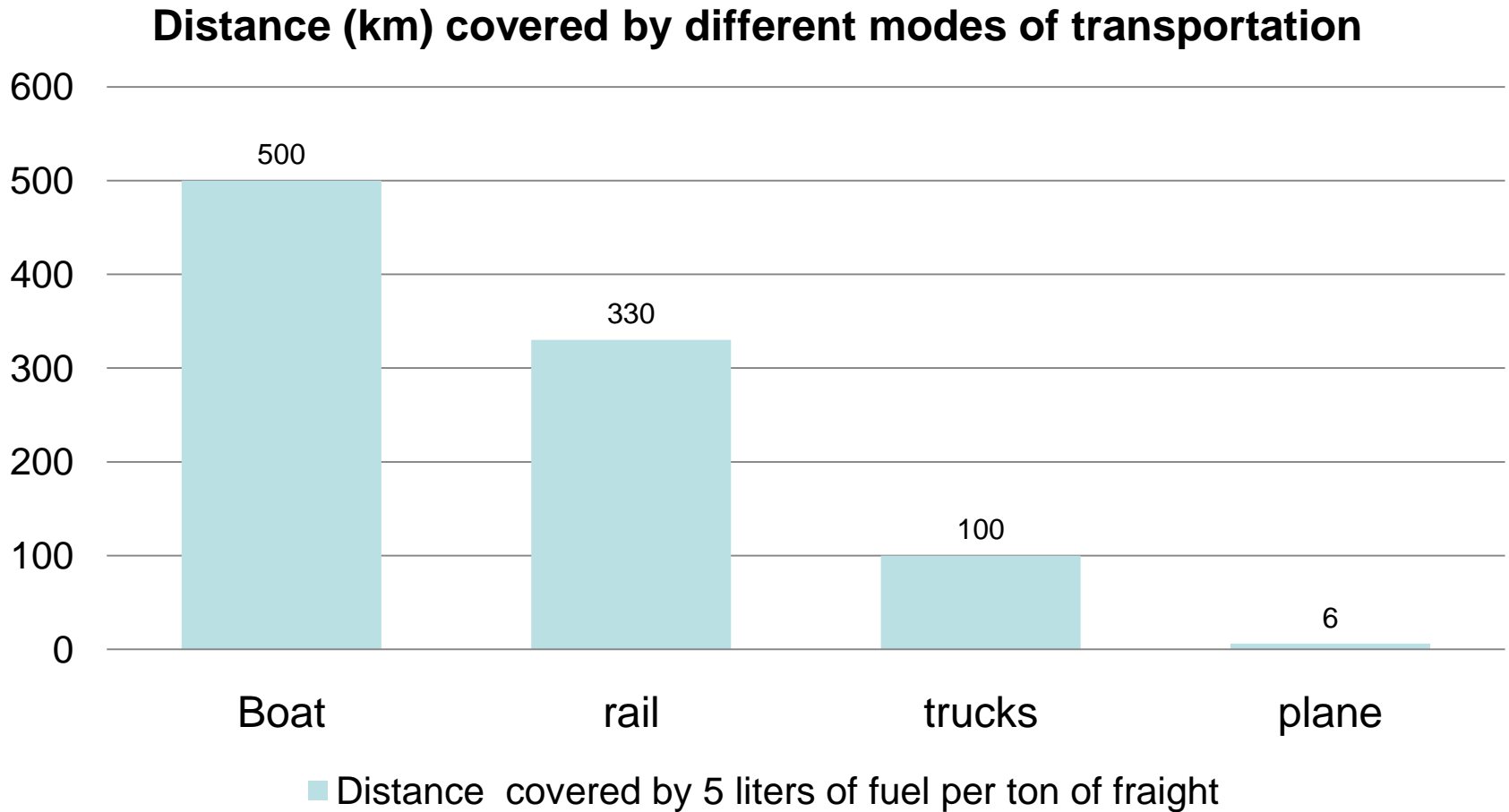
- Role of automatic stabilizers
- Contemporaneous tax finances current expenditure
- MC and MB applies

# Two trillion baht infrastructure public investment

Thailand's mode of transportation  
% share



# Efficiency of different modes



# Discussion questions

- In response to the triple-dip global recession, how should the Thai government conduct its fiscal policy?
- How should the government finance its budget deficit?
- What are likely impacts of 2.2 trillion baht mega infrastructure spending programs on output, price levels and current account deficit?