EE460: Fiscal Policy for Growth and Stability

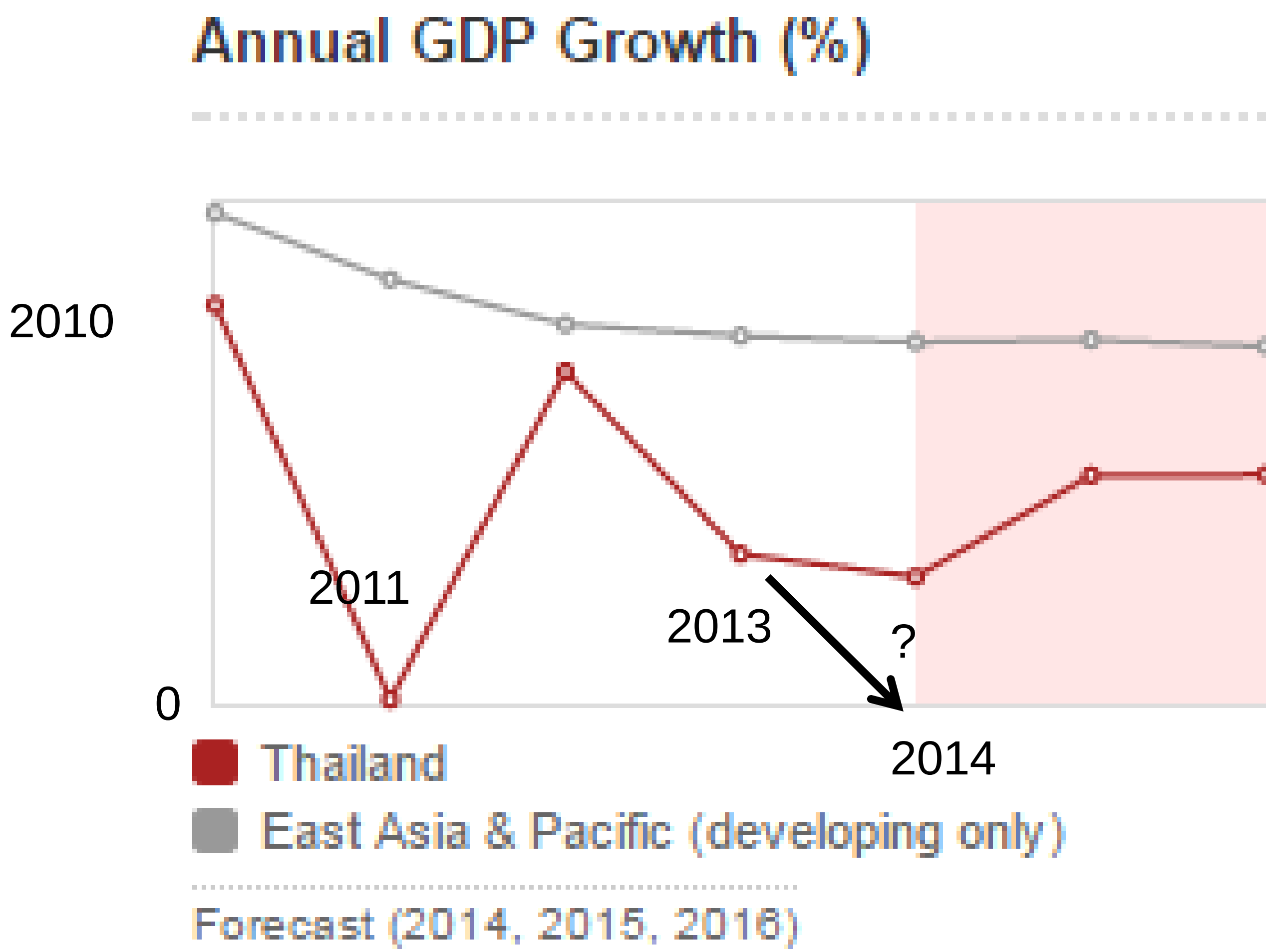
Bhanupong

Lecture 25

Outline

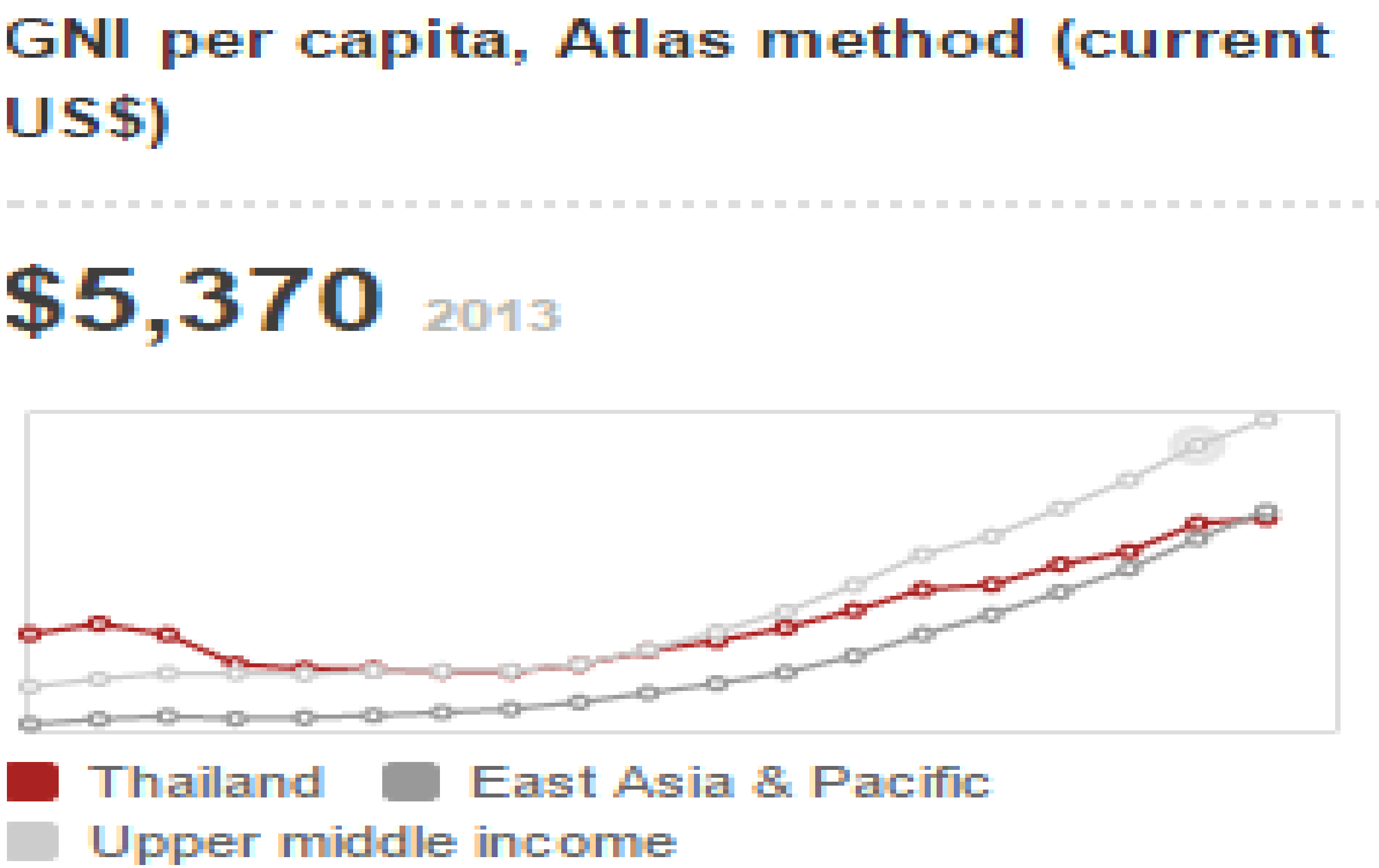
- **Fiscal stimulus and recession**
- **Spending and taxation: long-term relationship**
- **Rules for fiscal sustainability**
- **Automatic fiscal stabilizers**
- **Fiscal policy and economic growth**

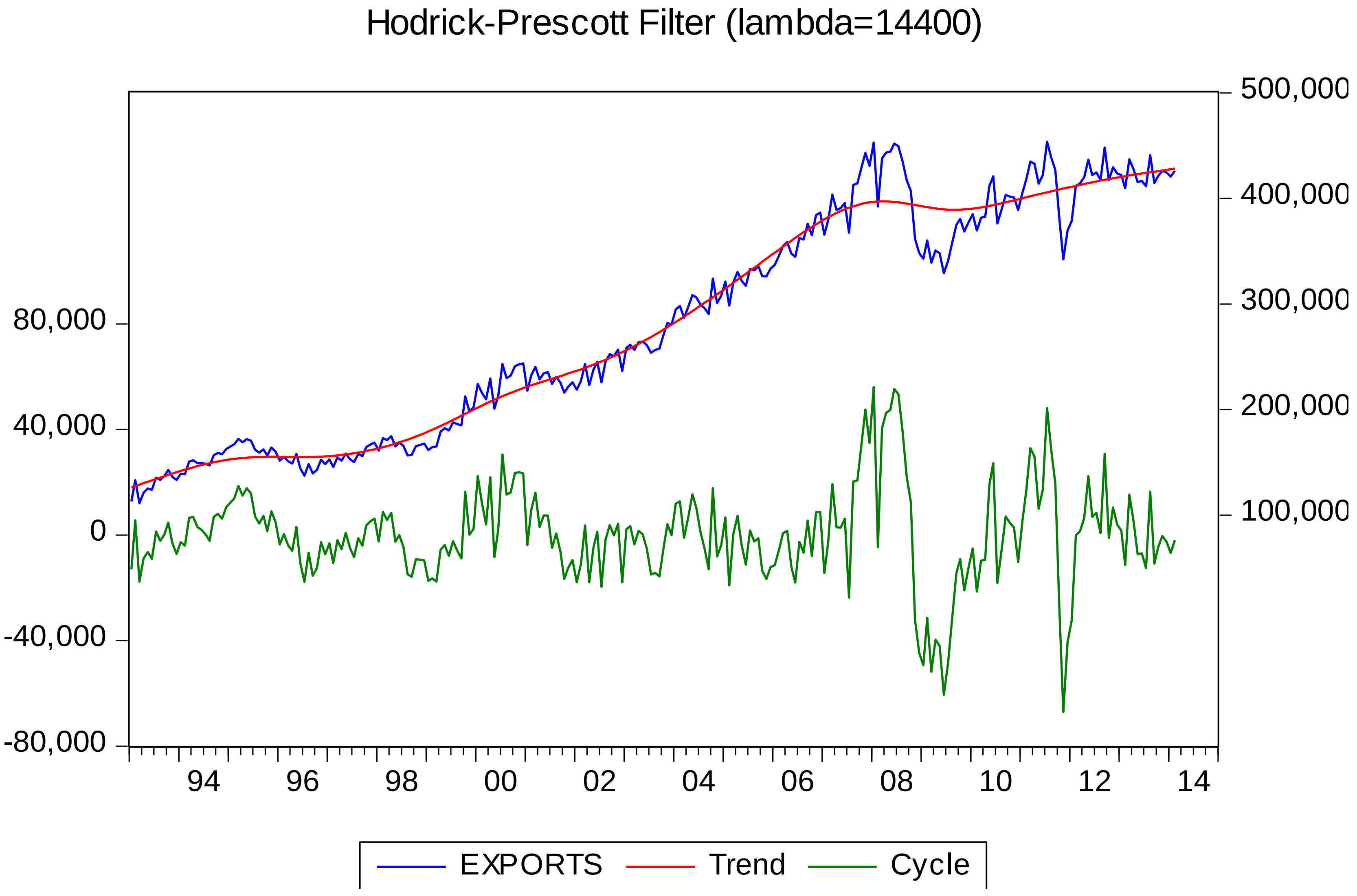
World Bank's Forecast



Middle Income Trap

1995 - 2013




Hodrick-Prescott Filter (lambda=14400)
500,000
400,000
300,000
200,000
100,000
80,000
40,000
0
-40,000
-80,000
94
96
98
00
02
04
06
08
10
12
14
EXPORTS
Trend
Cycle

Central Government Finance

Public revenue and spending

- Why are tax revenue and government spending positively related?
- Three possible explanations
- Remember that correlation does not mean causation.
- There can also be other factors contributing to the relationship.

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.

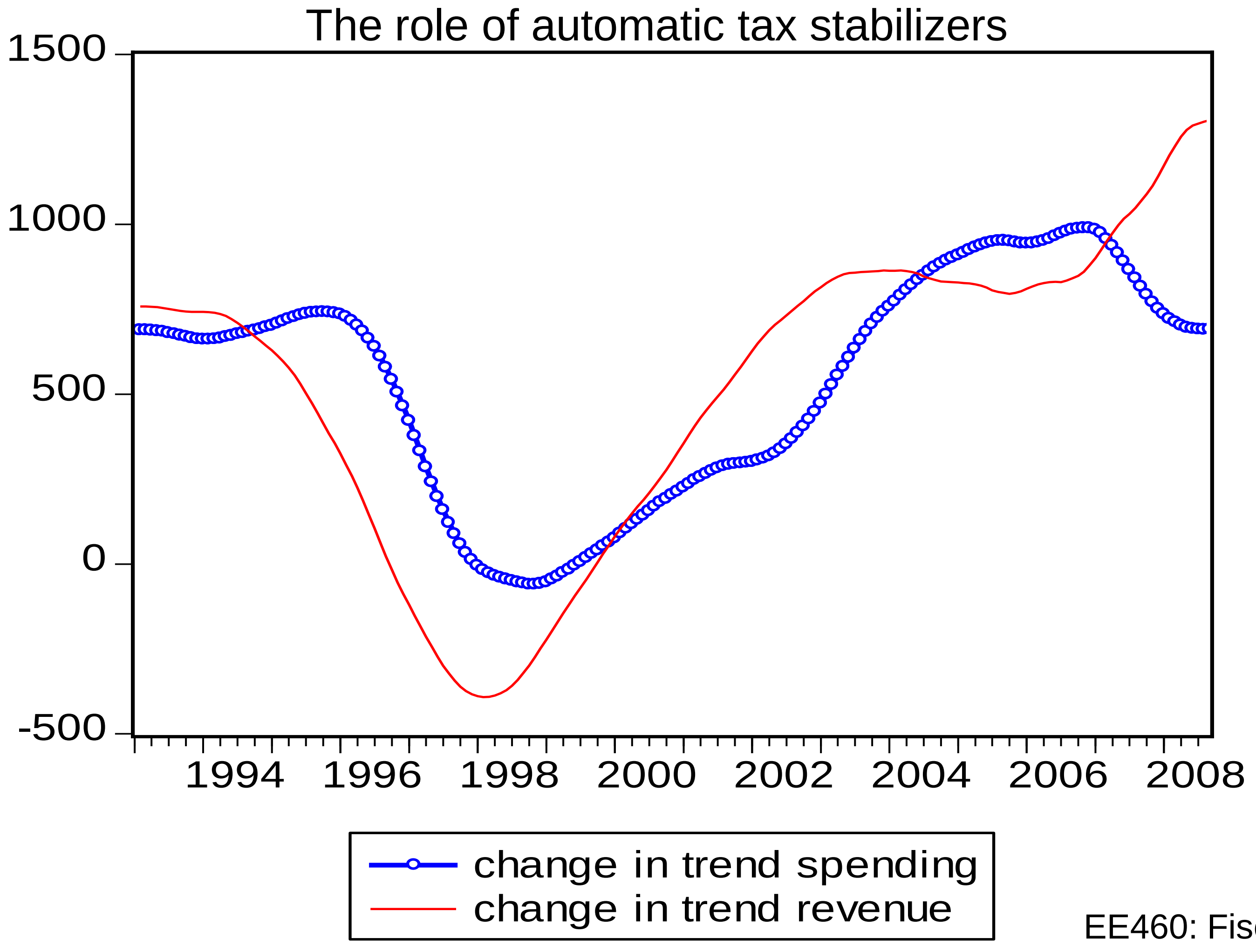
Plausible Causality

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

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

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

Fiscal stance shown by structural budget deficit



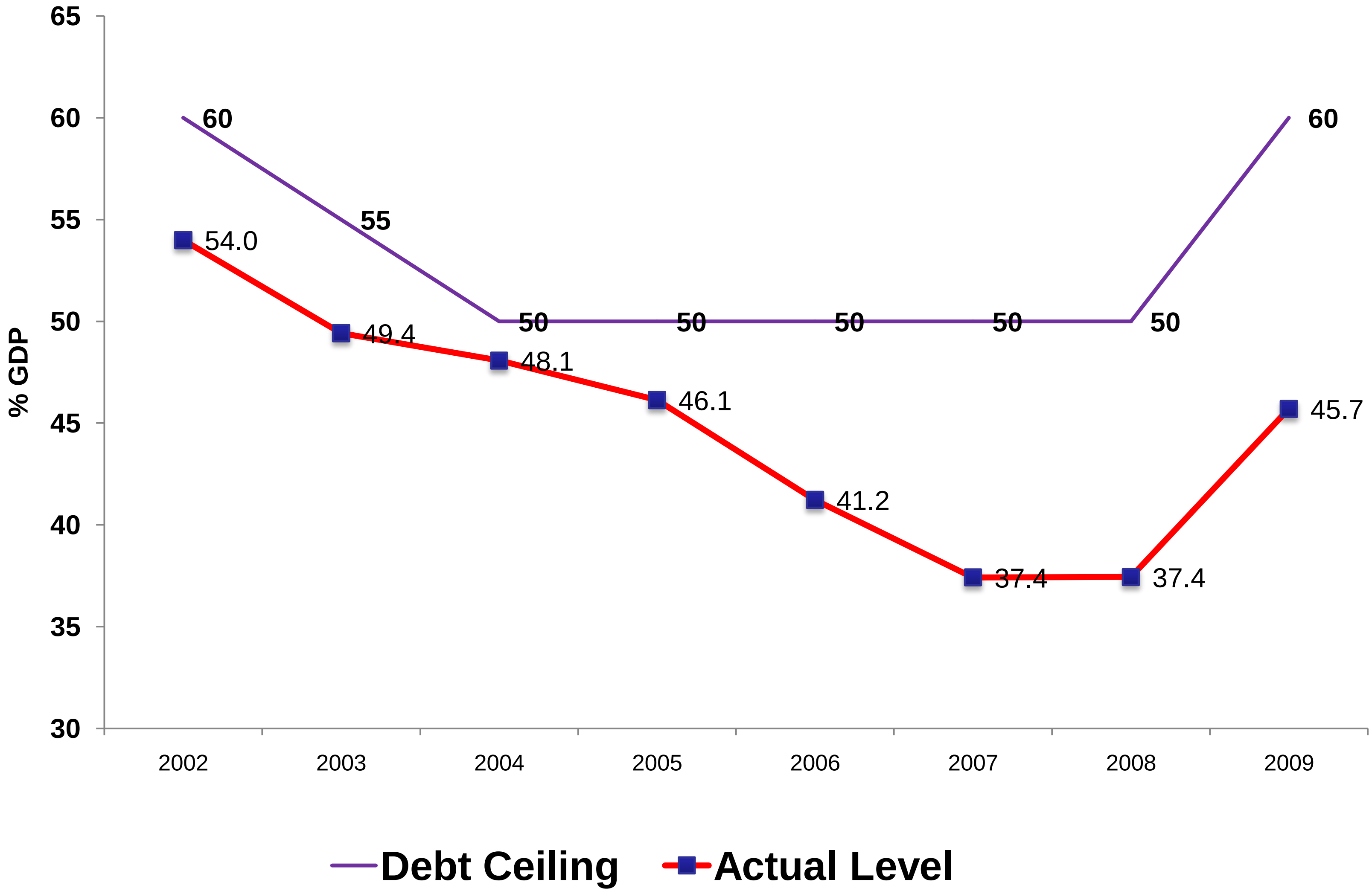
Budget deficit and economic growth

- 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.

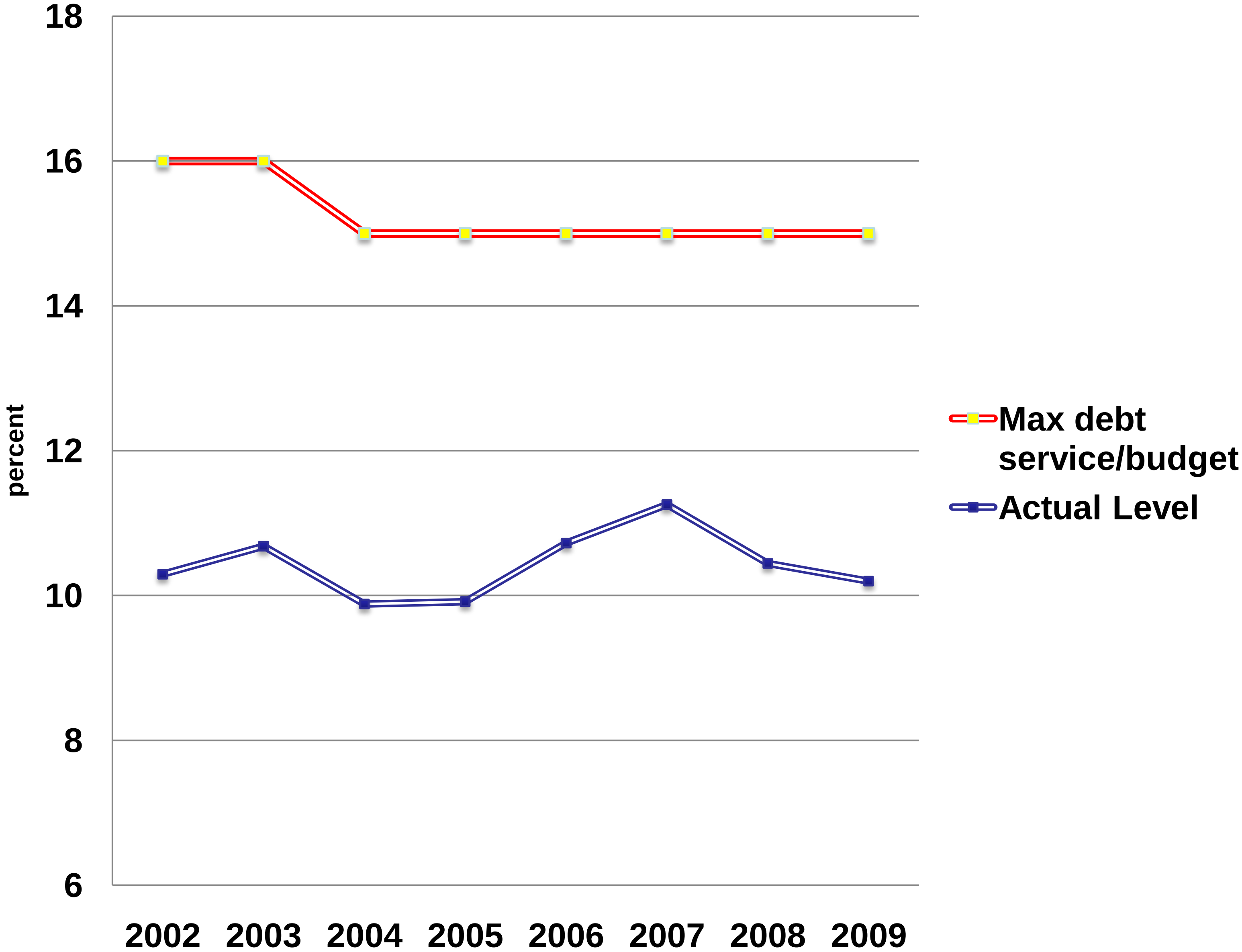
Rules of fiscal sustainability

- Size of public debt (below 60% of GDP)
- Size of debt service (below 15% of total budget)
- Public capital spending (above 25% of total budget)
- Ratio of foreign debt-service to exports

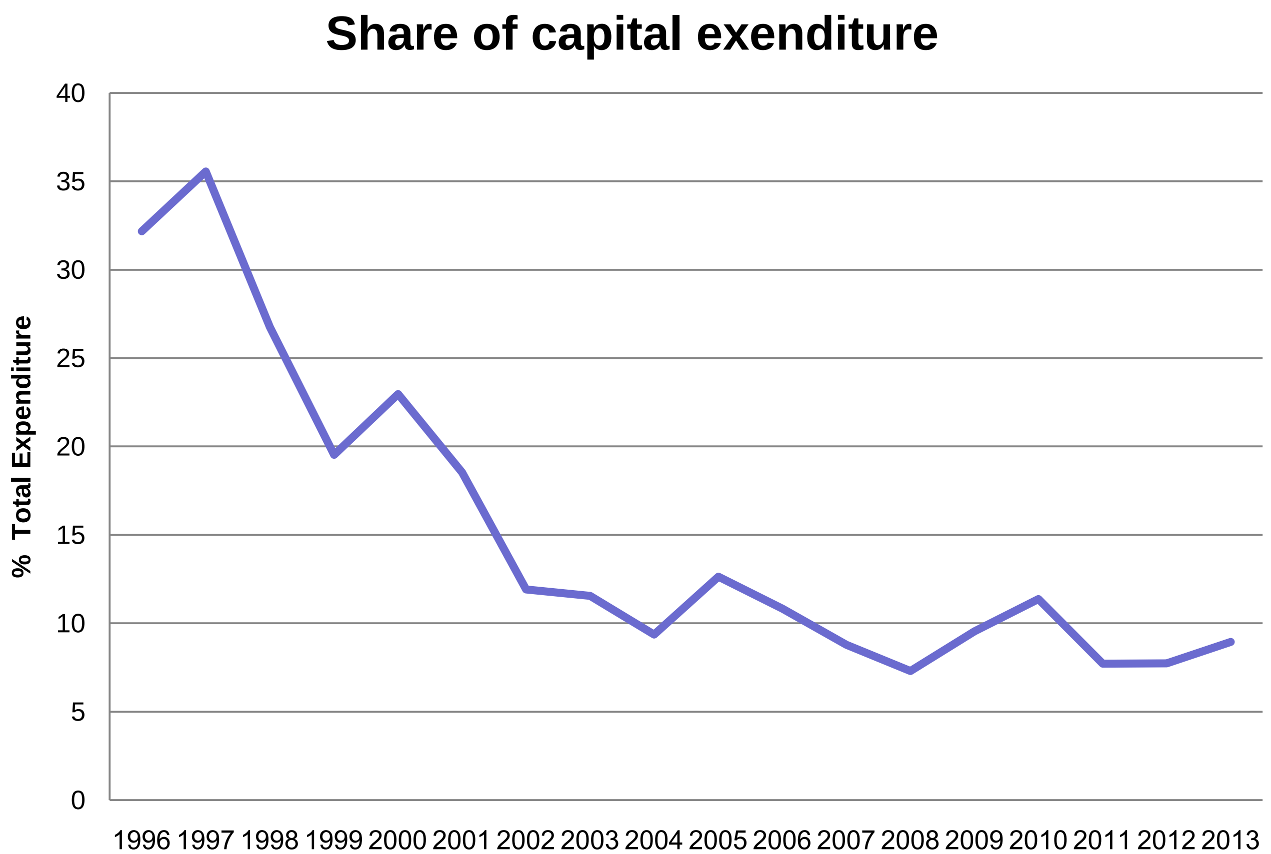
Regulation on Public Debt

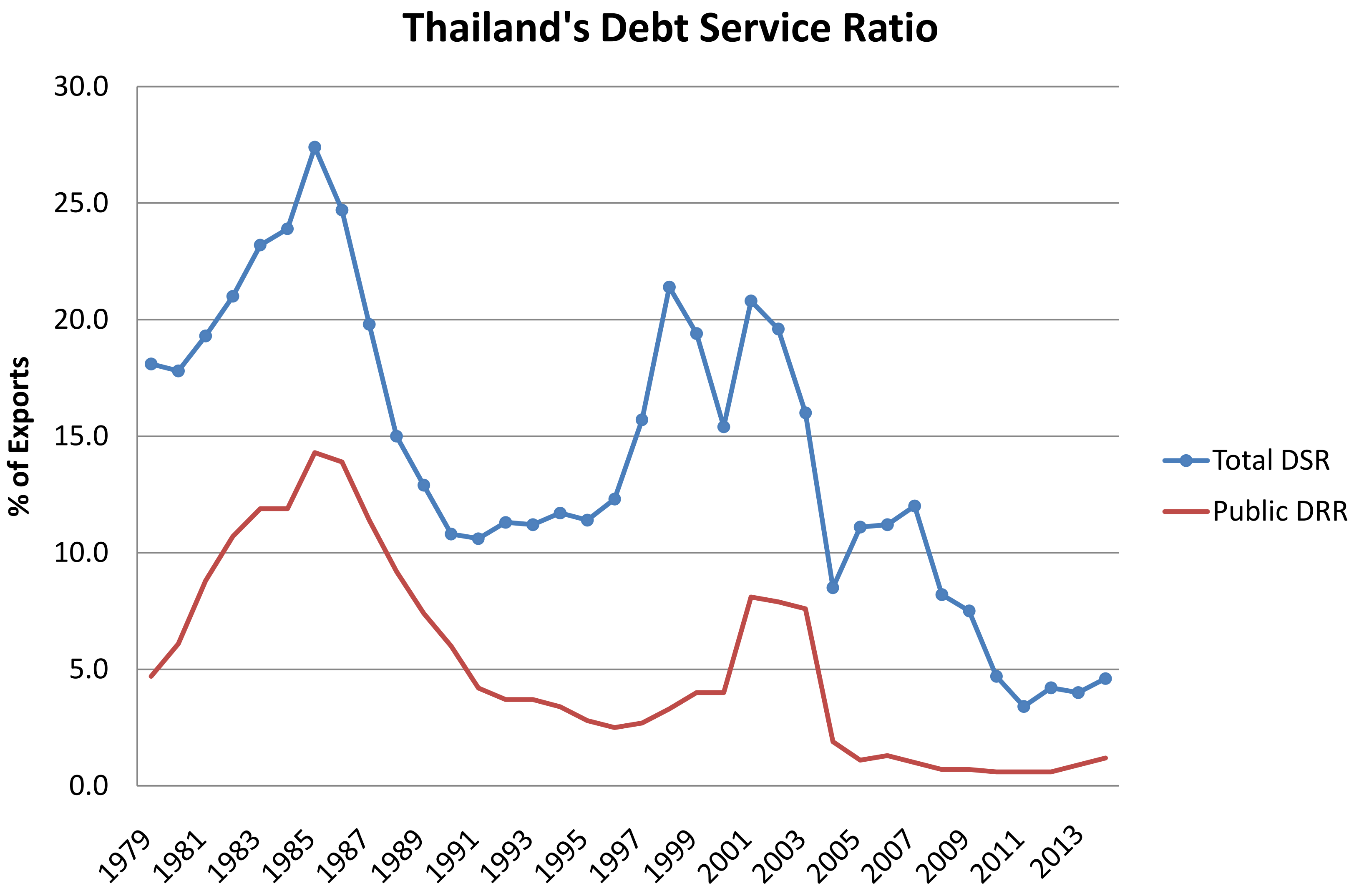


Debt Service to Total Planned Spending



Capital spending must not fall below 25% of total budget




Thailand's Debt Service Ratio
30.0
25.0
20.0
15.0
10.0
5.0
0.0
% of Exports
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
Total DSR
Public DRR

Fiscal variables, growth and output nexus

(1) $\log(R) = \alpha+\beta.\log(Y) + \gamma.\log(P)$

(2) $\log(G) = \delta+\eta.\log(Y)+\theta.\log(P)$

(1)-(2) $\log(R/G) = (\alpha-\delta)+$

$+(\beta-\eta)\log(Y)$

$+(\gamma-\theta) \log(P)$

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 public investment can contribute to growth during stagnation.

A caveat after recovery

- 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.

Addicted to populism

- 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.

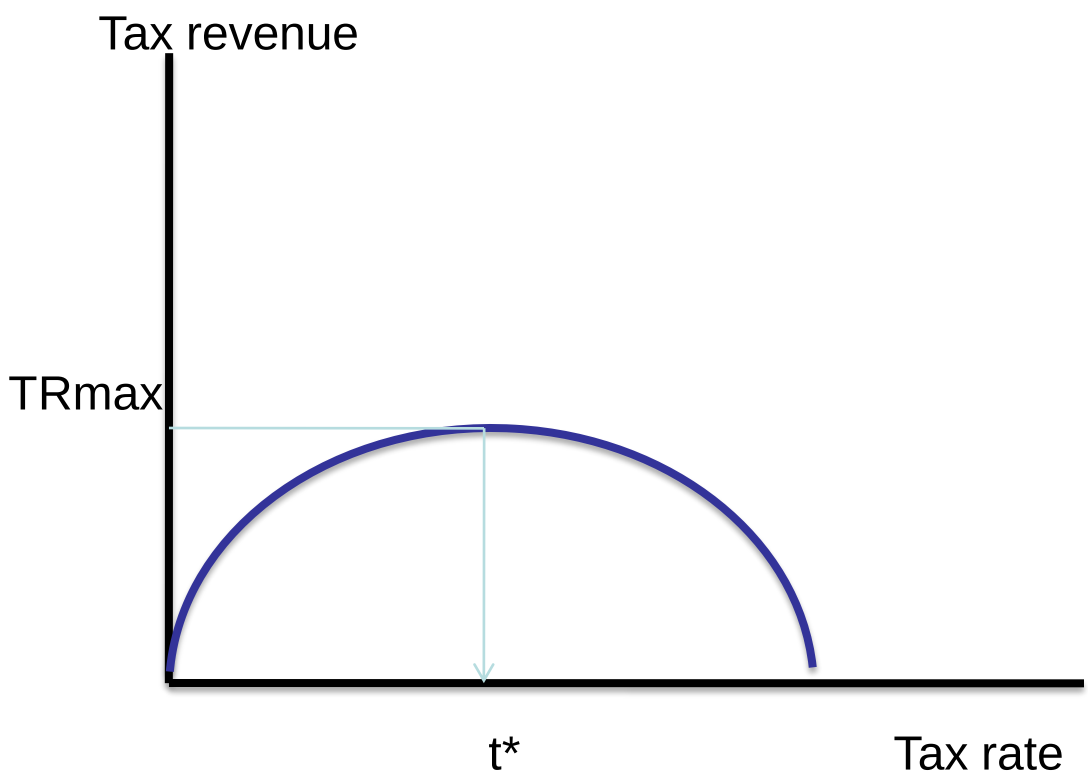
Public consumption vs. public investment

- 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

Laffer curve: tax rate and tax revenue relationship



Can a tax reduction increase tax 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.

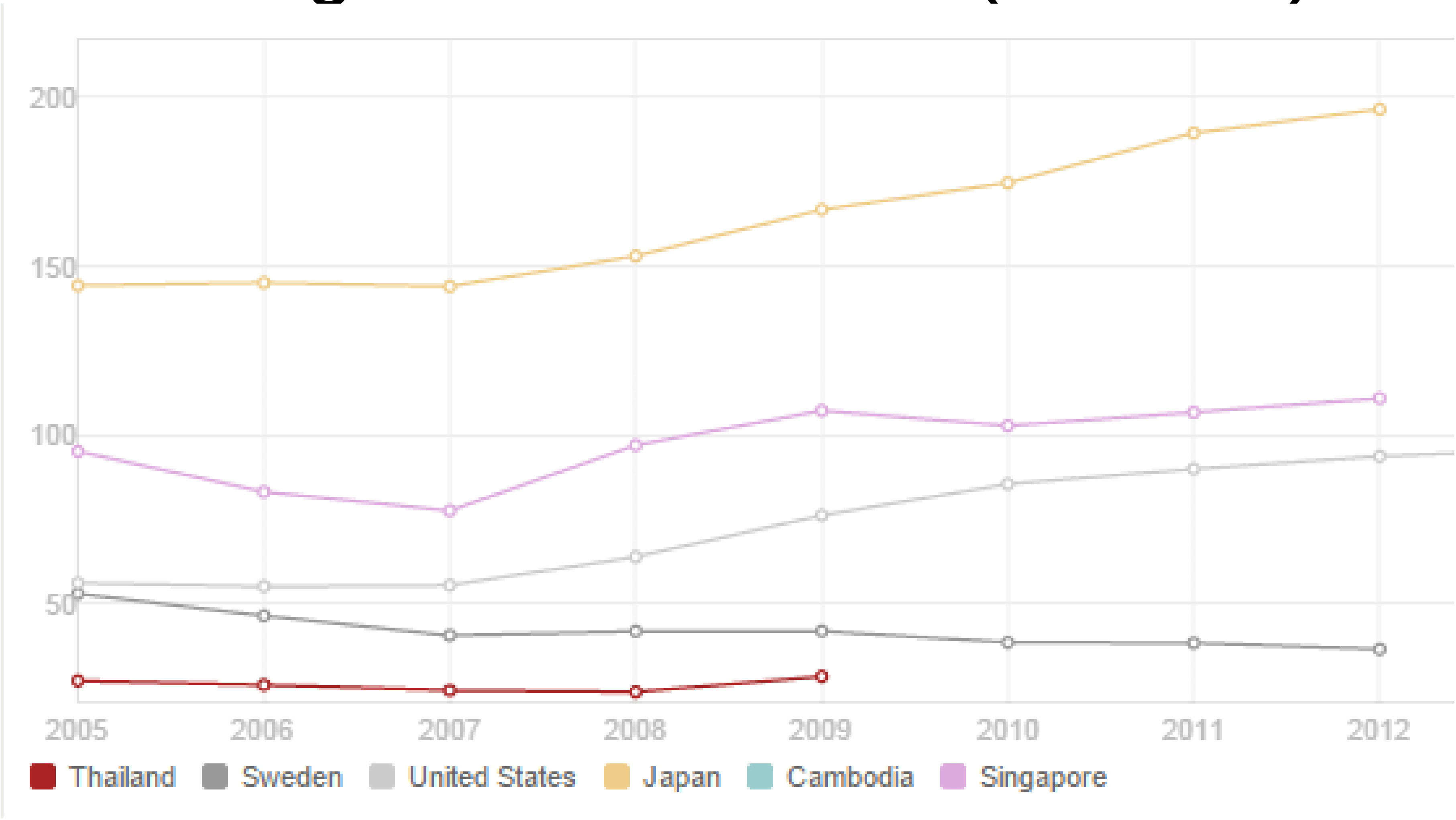
Stylized facts

- The level of development is related to fiscal structure: poor countries rely more on trade taxes, developed countries rely on income taxes.
- Fiscal policy is influenced by the size of the economy (population and GDP level).
- Investment in transport and communication is consistently correlated with growth.
- Public spending on infrastructure has supernormal returns.

Further questions

- Because the effects of taxation on growth are difficult to insolate,
- Should the government raise the value added tax?
- Is there any limit to government spending?
- Fiscal space is impaired by high debt-GDP ratio.
- The small fiscal space reduce the government’s ability to counteract recession.

Central government debt (% GDP)



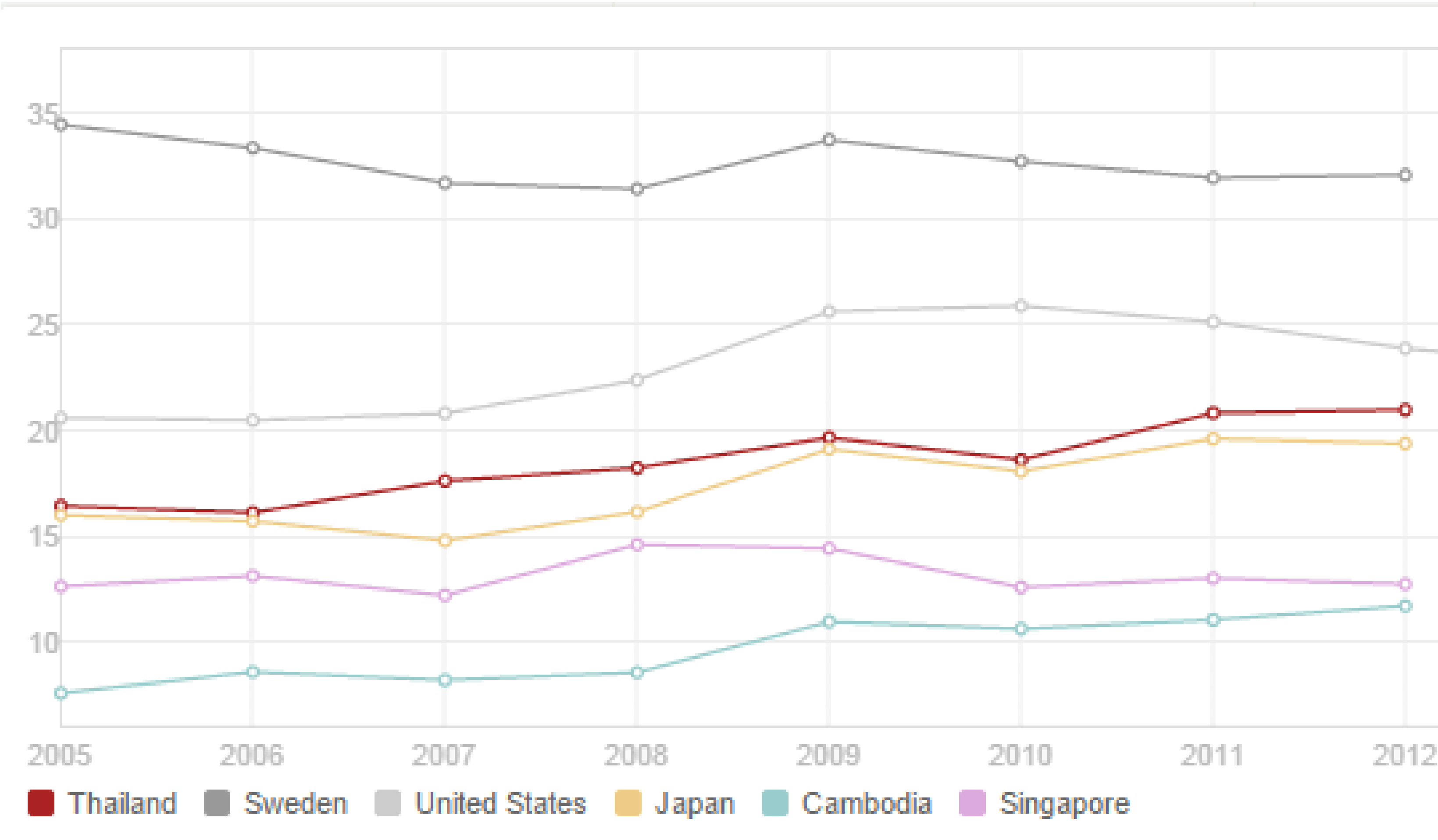
To stabilize the public debt

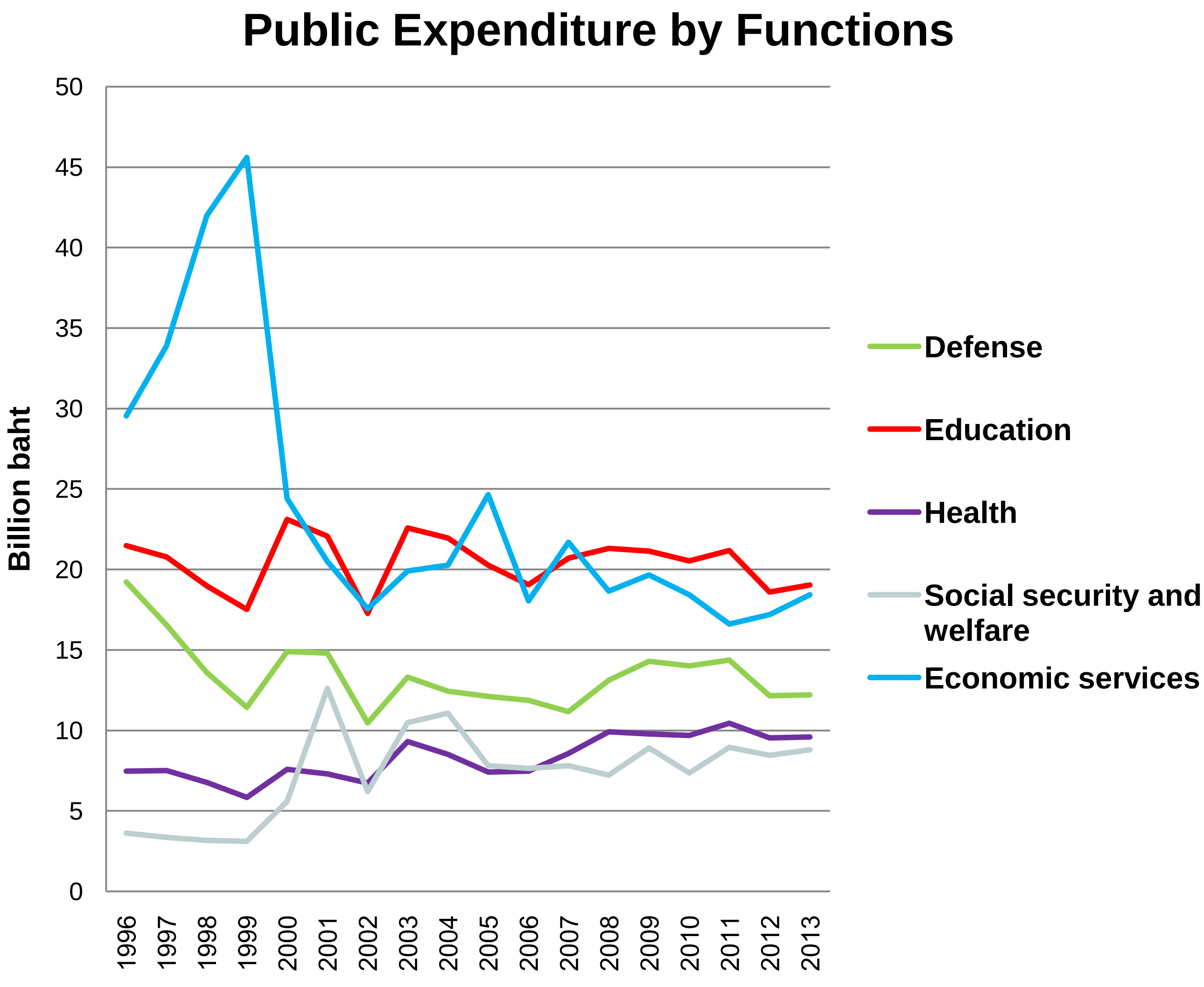
- To keep the Debt-to-GDP constant, the government must increase its primary surplus in line with the increase in (r-g).
- The spending cuts or tax increases are likely to prove politically costly, generating even more political uncertainty and the need for an even higher interest rate.
- A sharp fiscal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

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

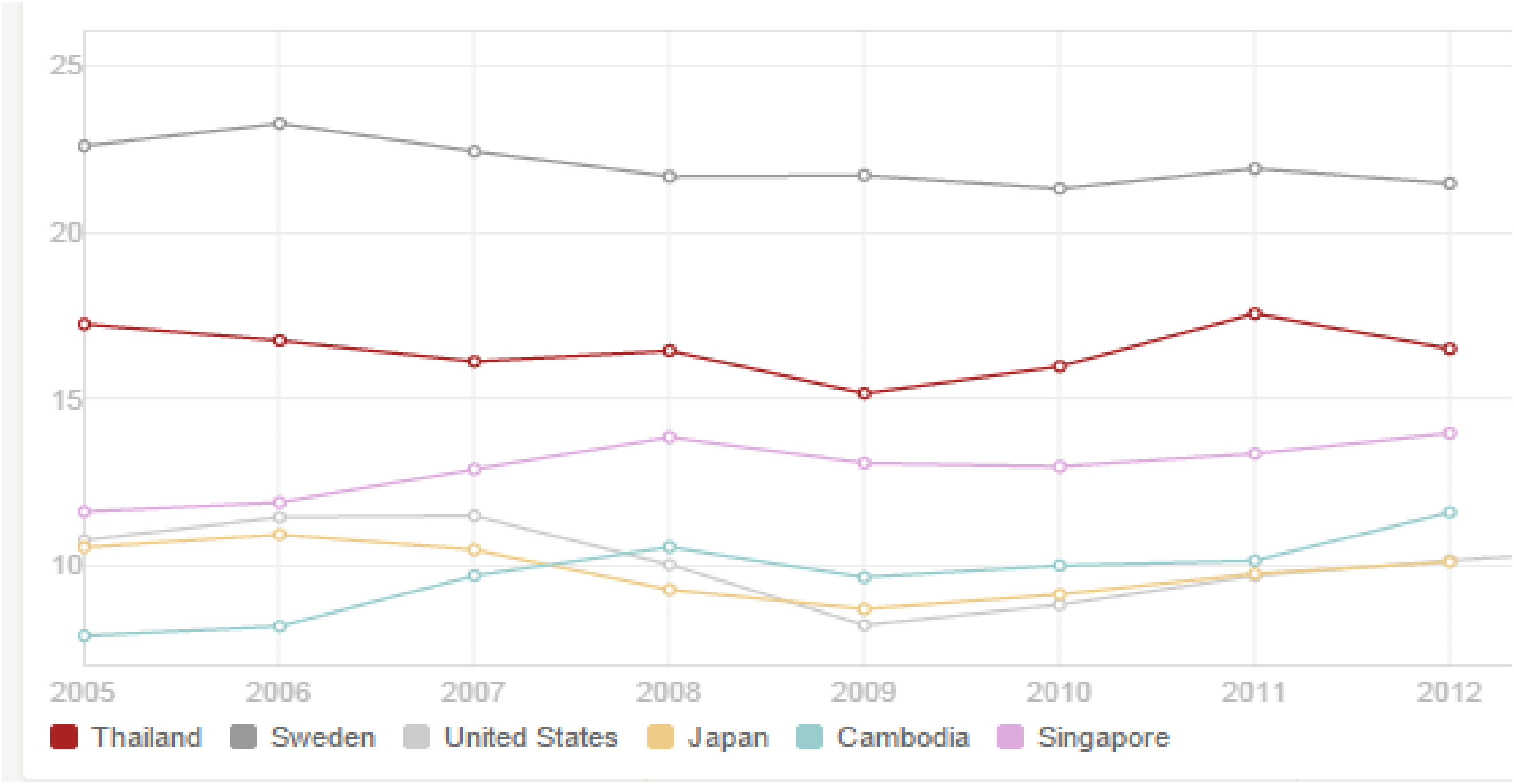
- The increase in the ratio of debt (B) to GDP will be larger,
- The higher the real interest rate (r)
- The lower the growth rate of output (g)
- The higher the initial debt ratio (B/Y)t-1
- The higher the ratio of the *primary deficit* to GDP (G-T)/Y

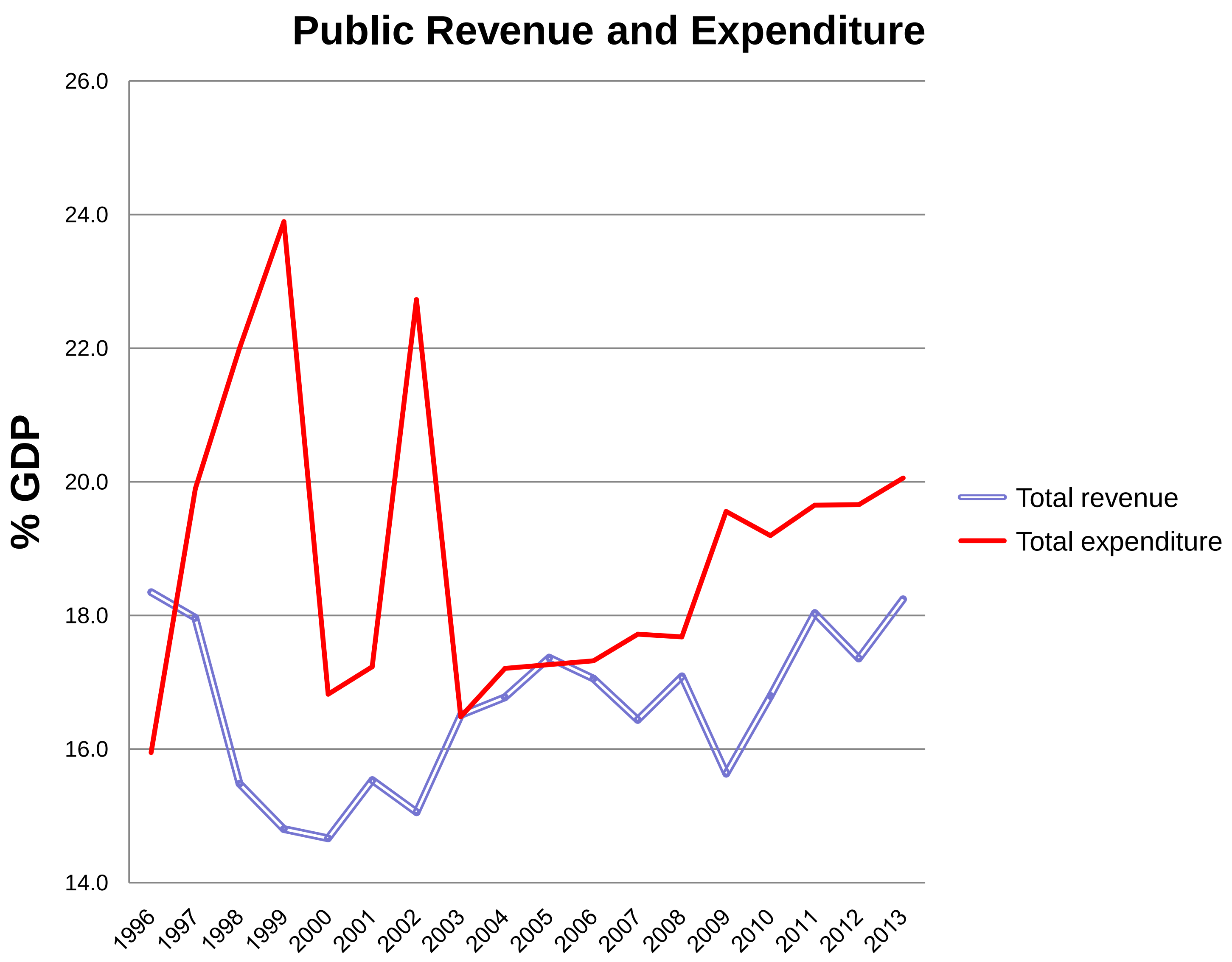
Public expense (%GDP)



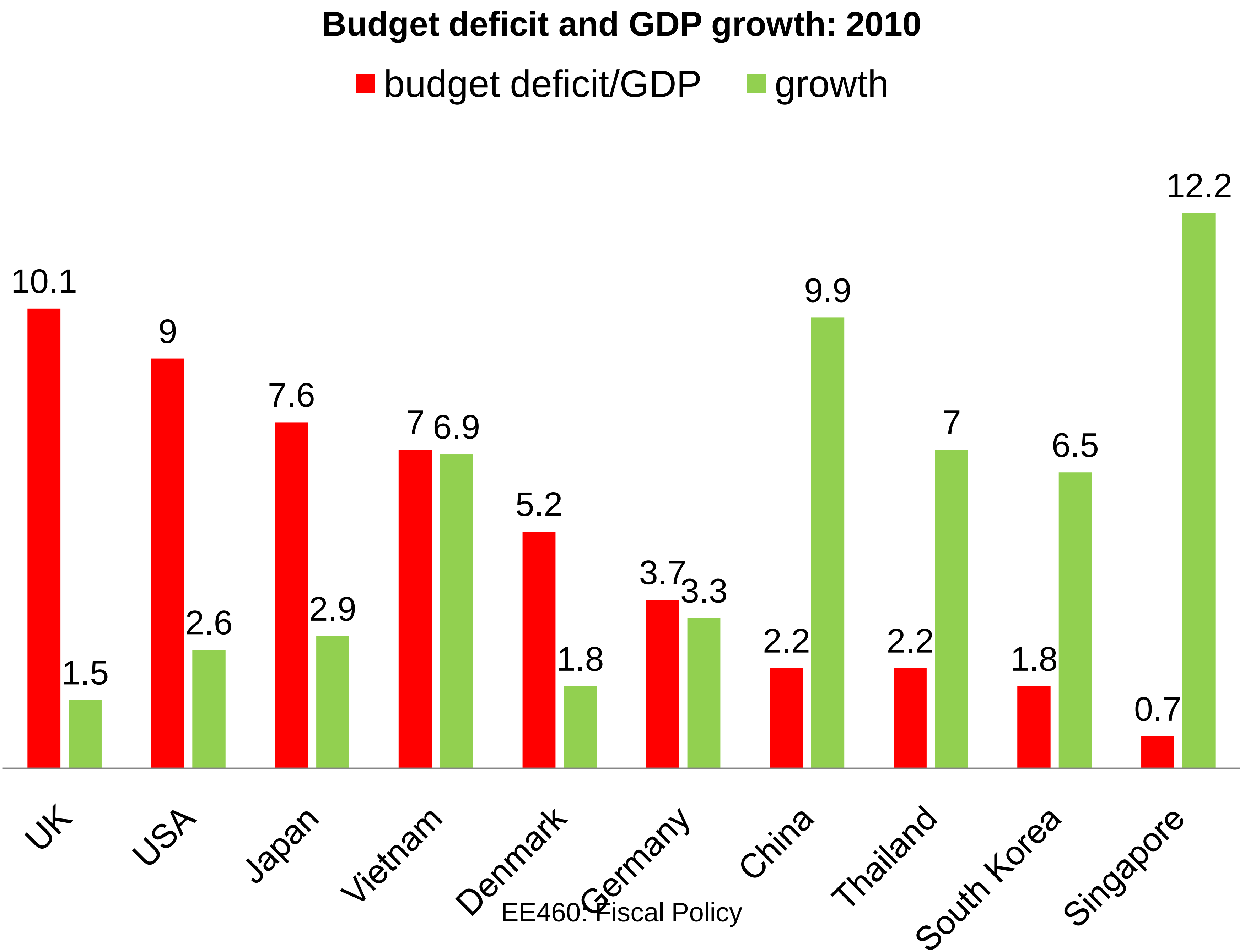

Public Expenditure by Functions
Billion baht
50
45
40
35
30
25
20
15
10
5
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
Defense
Education
Health
Social security and welfare
Economic services

Tax revenue (% GDP)



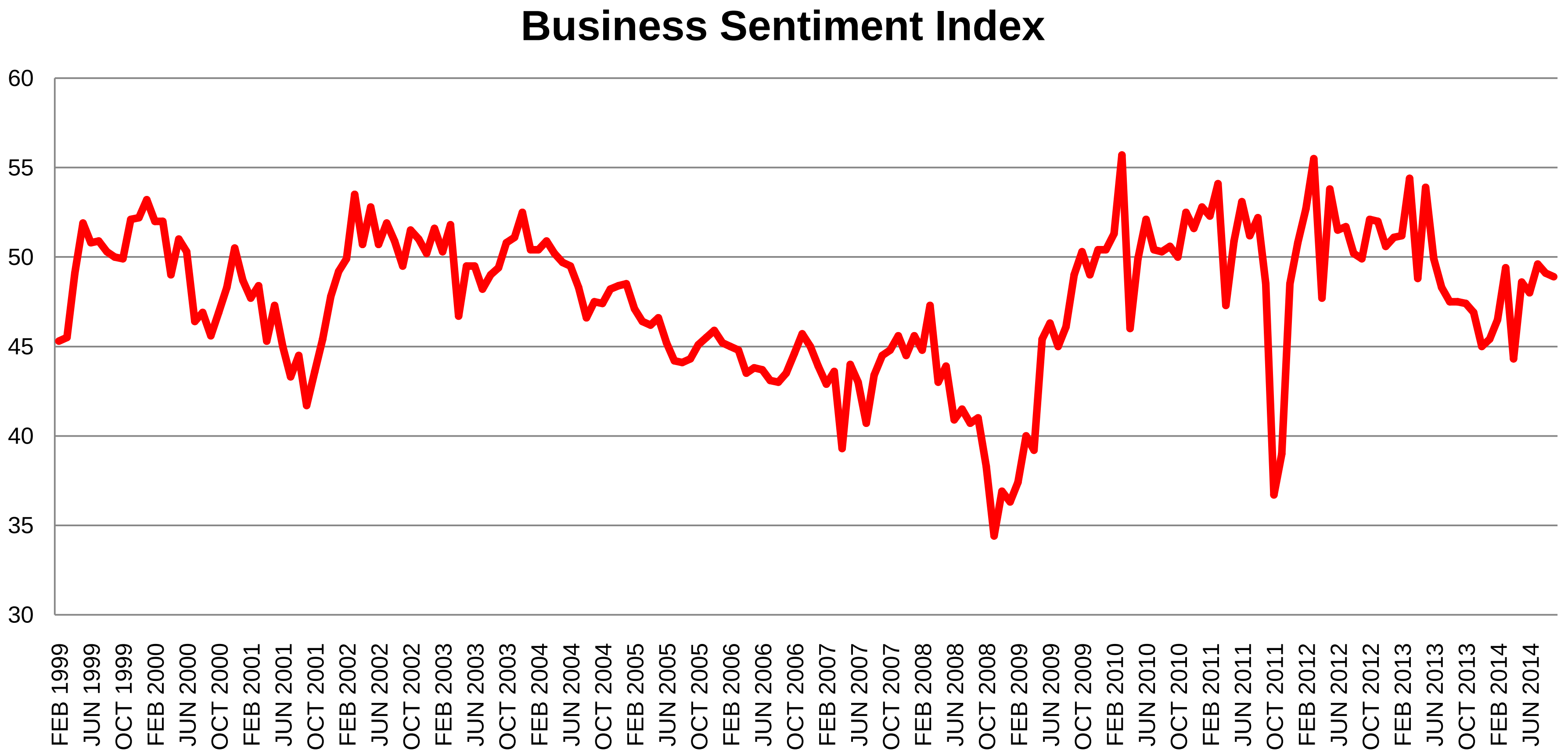


Public Revenue and Expenditure
% GDP
26.0
24.0
22.0
20.0
18.0
16.0
14.0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
Total revenue
Total expenditure

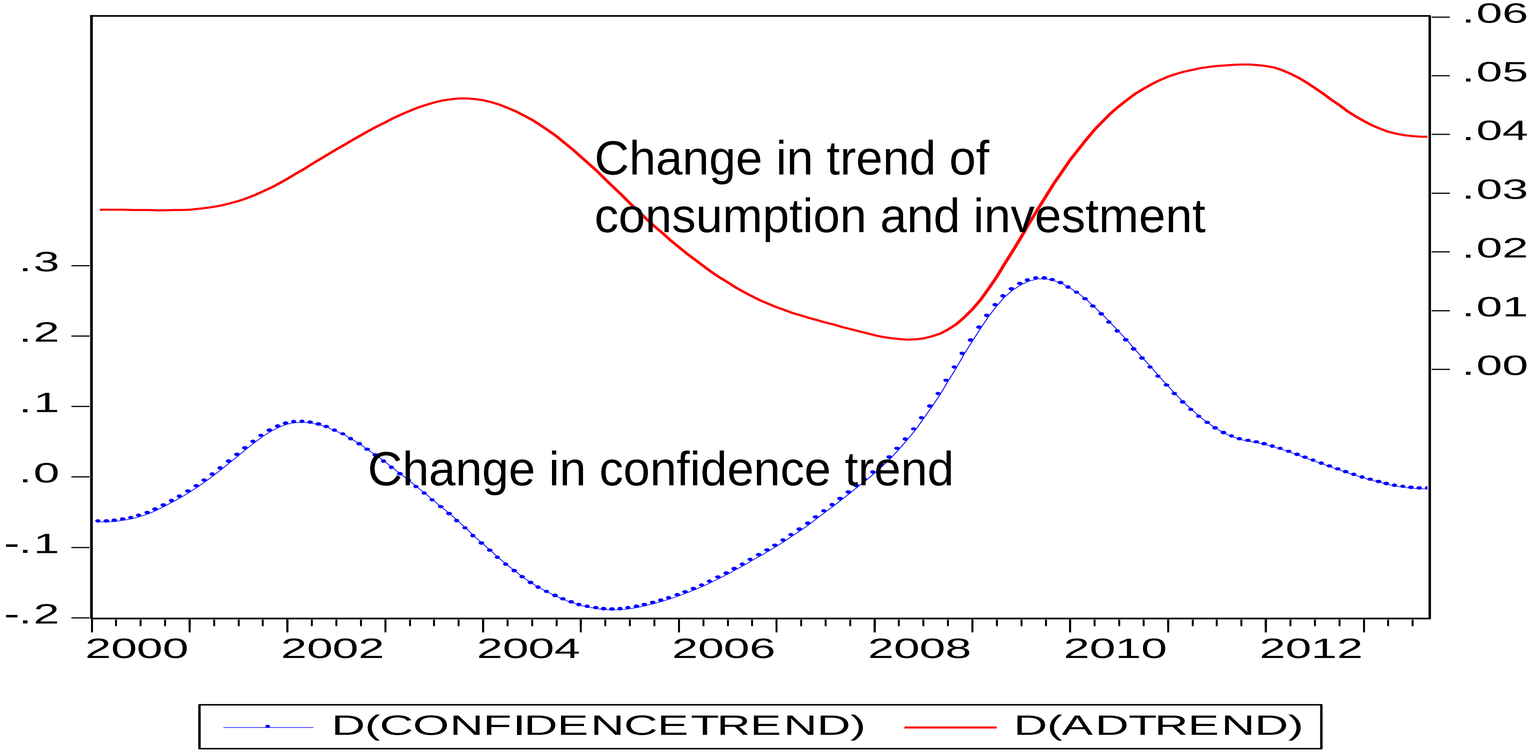

Budget deficit and GDP growth: 2010
budget deficit/GDP
growth
10.1
1.5
9
2.6
7.6
2.9
7
6.9
5.2
1.8
3.7
3.3
2.2
9.9
2.2
7
1.8
6.5
0.7
12.2
UK
USA
Japan
Vietnam
Denmark
Germany
China
Thailand
South Korea
Singapore

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 Sentiment Index
60
55
50
45
40
35
30
FEB 1999
JUN 1999
OCT 1999
FEB 2000
JUN 2000
OCT 2000
FEB 2001
JUN 2001
OCT 2001
FEB 2002
JUN 2002
OCT 2002
FEB 2003
JUN 2003
OCT 2003
FEB 2004
JUN 2004
OCT 2004
FEB 2005
JUN 2005
OCT 2005
FEB 2006
JUN 2006
OCT 2006
FEB 2007
JUN 2007
OCT 2007
FEB 2008
JUN 2008
OCT 2008
FEB 2009
JUN 2009
OCT 2009
FEB 2010
JUN 2010
OCT 2010
FEB 2011
JUN 2011
OCT 2011
FEB 2012
JUN 2012
OCT 2012
FEB 2013
JUN 2013
OCT 2013
FEB 2014
JUN 2014

Confidence and Private Aggregate Demand



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

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.

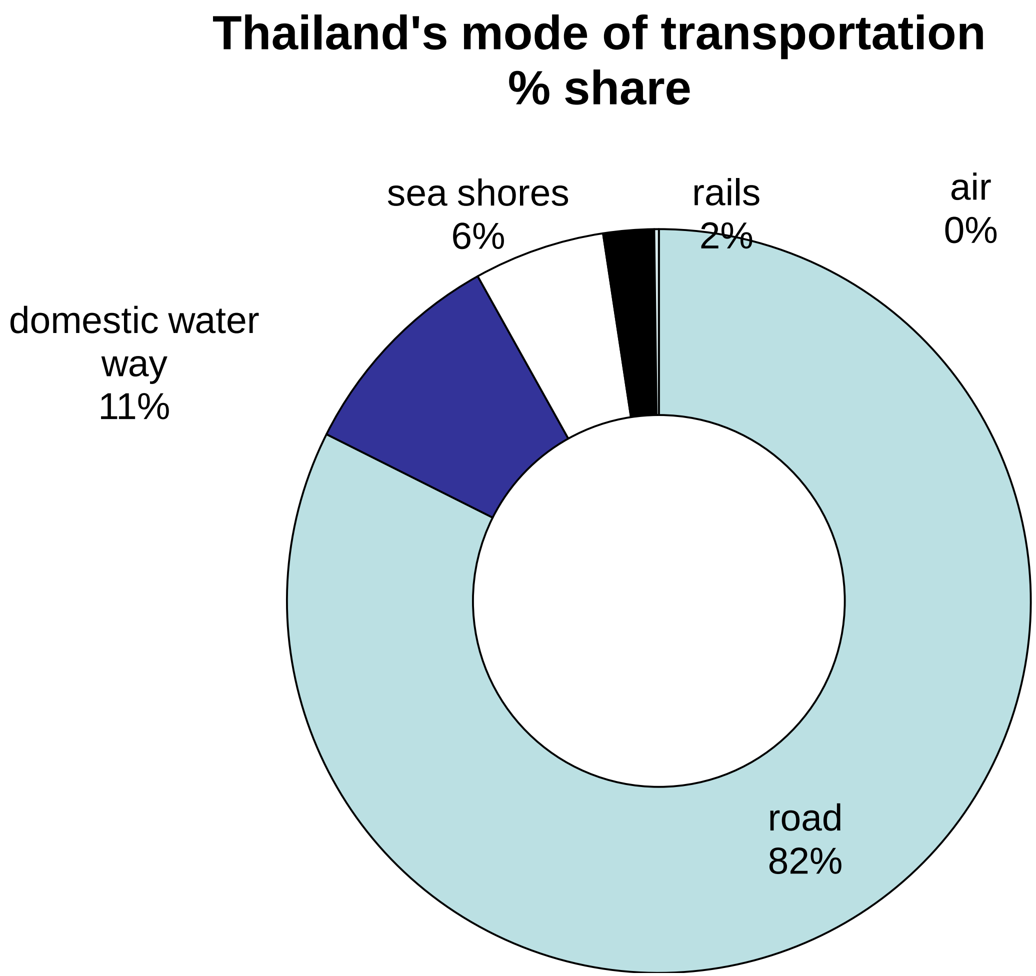
Fiscal space

- 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.

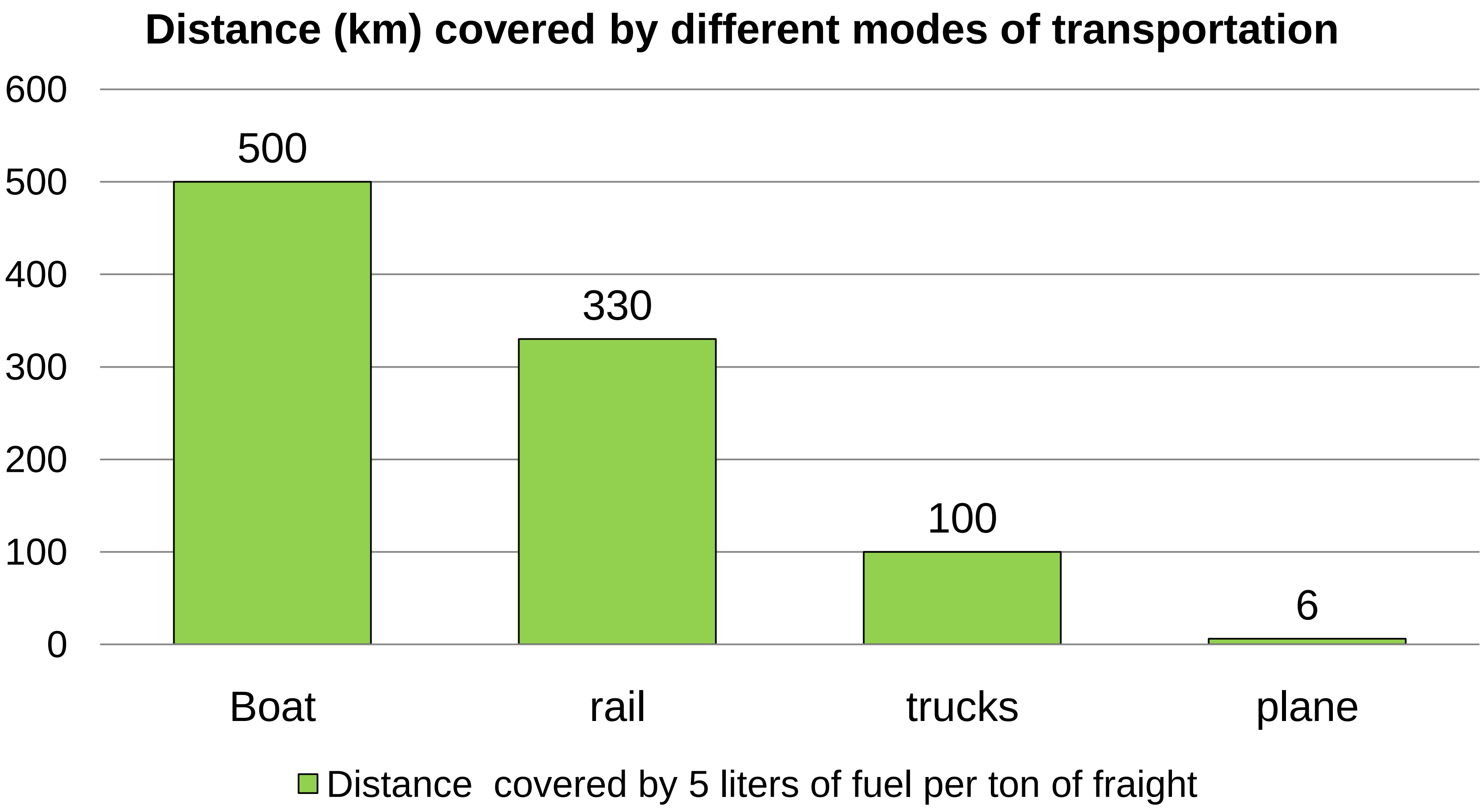
Fiscal strategies for long-term growth

- Role of automatic stabilizers cannot be underestimated
- Contemporaneous tax finances only current expenditure, while capital expenditure can be financed by issuing government bonds
- MC and MB principle applies

Three trillion baht for infrastructure public investment



Efficiency of different modes



Conclusion

- Fiscal policy can become an effective means to spur growth during the time when consumer and investor confidence is strong.
- 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.

Discussion questions

- In response to a triple-dip global recession, how should the Thai government conduct its fiscal policy?
- For distribution and revenue purposes, should the government employ inheritance and property taxes?
- What are likely impacts of 3.3 trillion baht mega infrastructure spending programs on output, price levels and current account?


The glistering dollar
January 3rd 2012=100
120
US dollar trade-weighted exchange rate
110
100
Gold, $ price
90
80
70
Yen trade-weighted exchange rate
60
2012
13
14
Sources: Bank of England; Thomson Reuters