

Thailand's Fiscal Policy for stabilization and long-term growth

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Lecture 25

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Lessons from Thailand's Fiscal Policy*

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Abstract

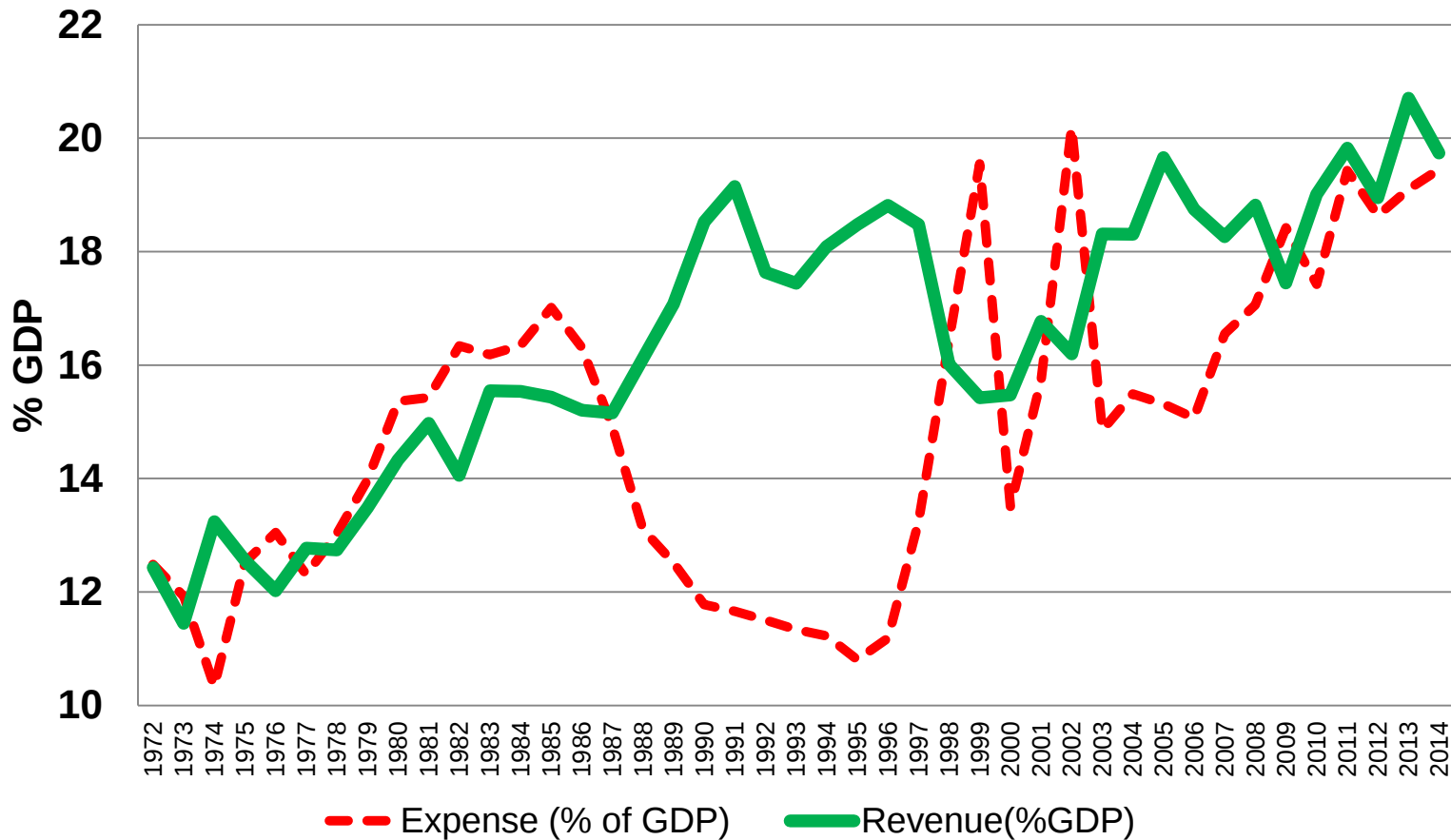
If rules of fiscal sustainability are observed, available fiscal space permits effective countercyclical fiscal programs. The importance of automatic fiscal stabilizers should not be underestimated. The discretionary impact of increased public spending and tax cuts can be amplified if implemented when consumer confidence investor sentiments are high. There is no evidence to support non-Keynesian effects of fiscal policy in Thailand. Unwarranted fears of unsustainable public debt and ultra-conservative fiscal policy has cost the country a lost opportunity for achieving high growth. After the military coups in 2006 and 2014, the Thai economy experienced the lowest economic growth among ASEAN countries. The budget spent on economic services was diverted into defense, increases in public sector's wages, and income transfer payments. The opportunistic political budget model predicts higher fiscal spending by incumbent democratic governments before an election to gain votes. In the case of Thailand, such spending comes after military coups, akin to a military business cycle spending.

Outline

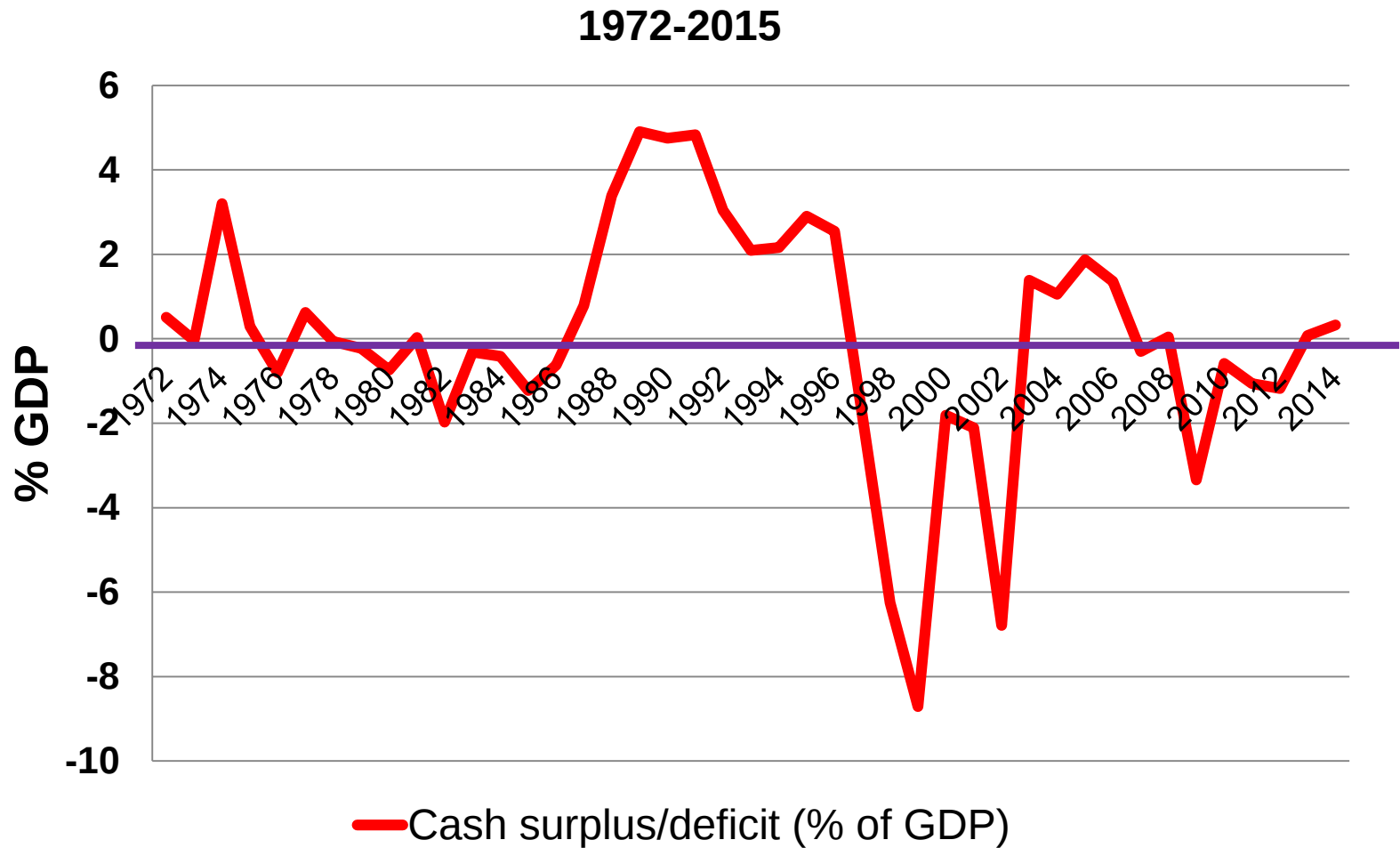
- Fiscal stimulus and recession
- Rules for fiscal sustainability
- Automatic fiscal stabilizers
- Fiscal policy and economic growth
- Rules for effective fiscal policy
- Lessons from Thailand's fiscal policy

Public Expense and Revenue

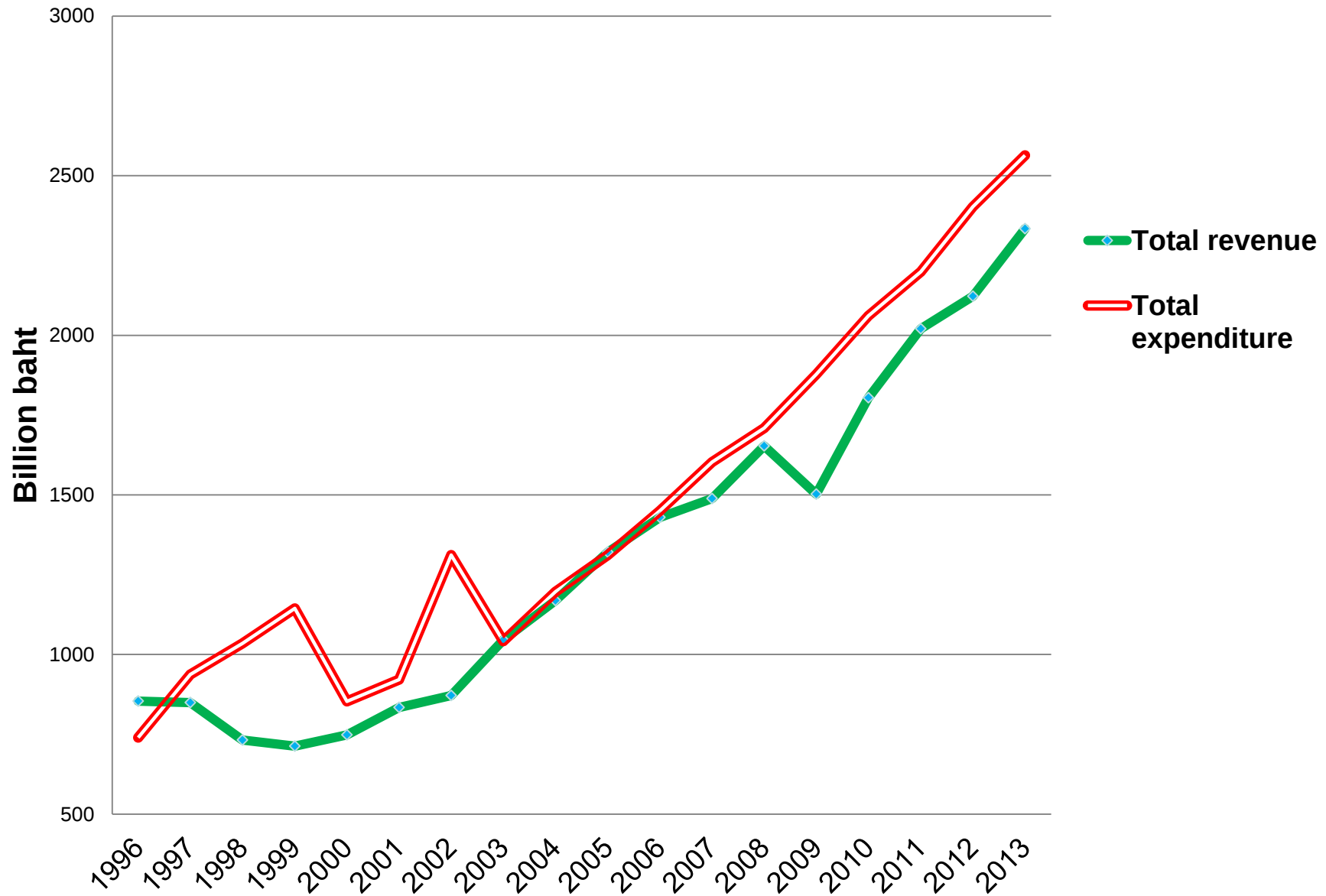
1972-2015



Fiscal Balance



Central Government's spending financed by tax revenue



Three methods of deficit finance

(1) Money finance

The central bank buys bonds, injecting money supply to the economy.

High inflationary impact if output is near full employment.

Strong output expansionary impact when there is excessive supply and high level of unemployment.

No crowding out effect as the interest rate tend to decline.

Three methods of deficit finance

(2) **Tax finance**

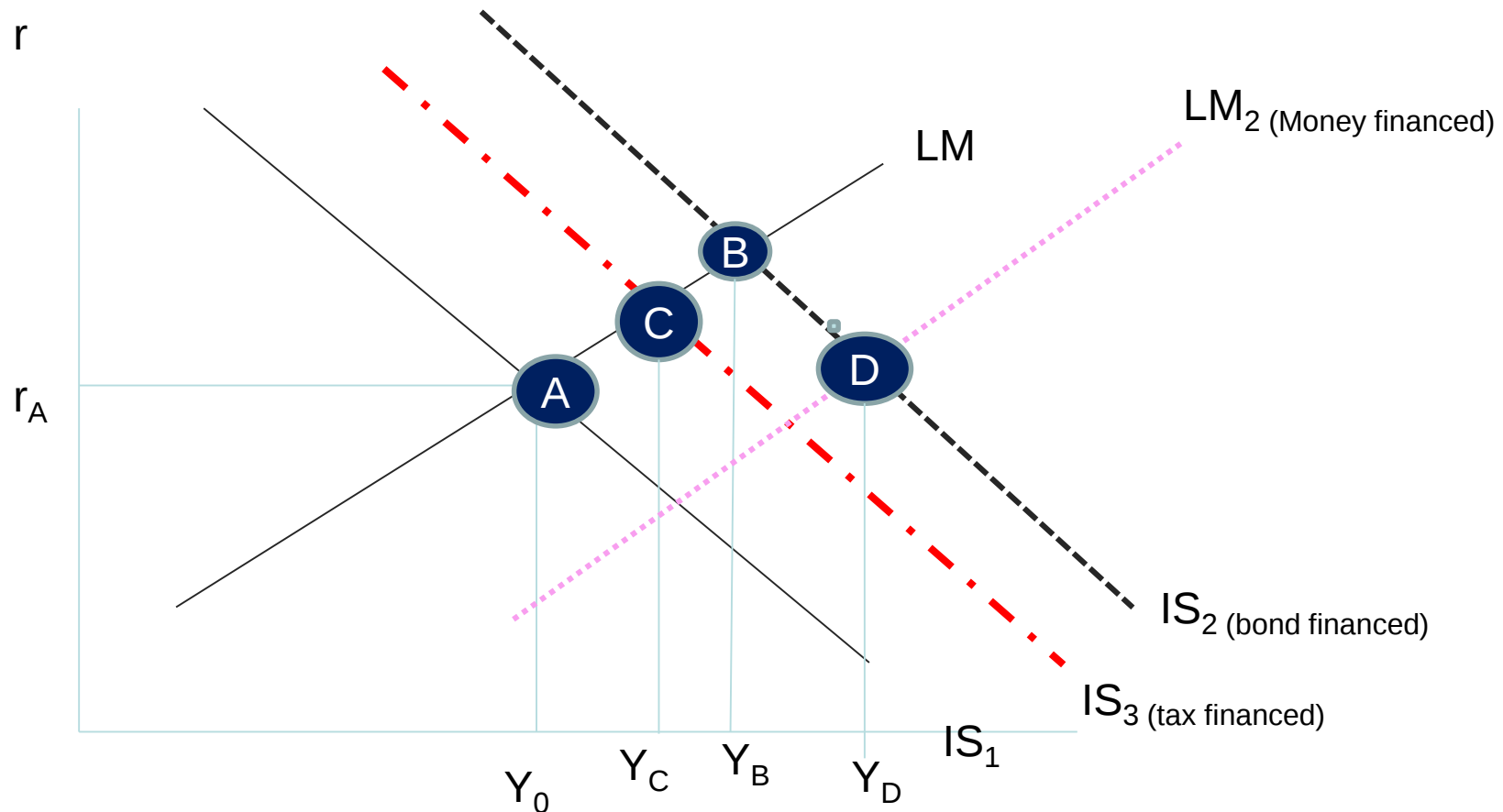
low expansionary impact since consumption declines offsetting government spending

This method can be employed when the economy is near full employment

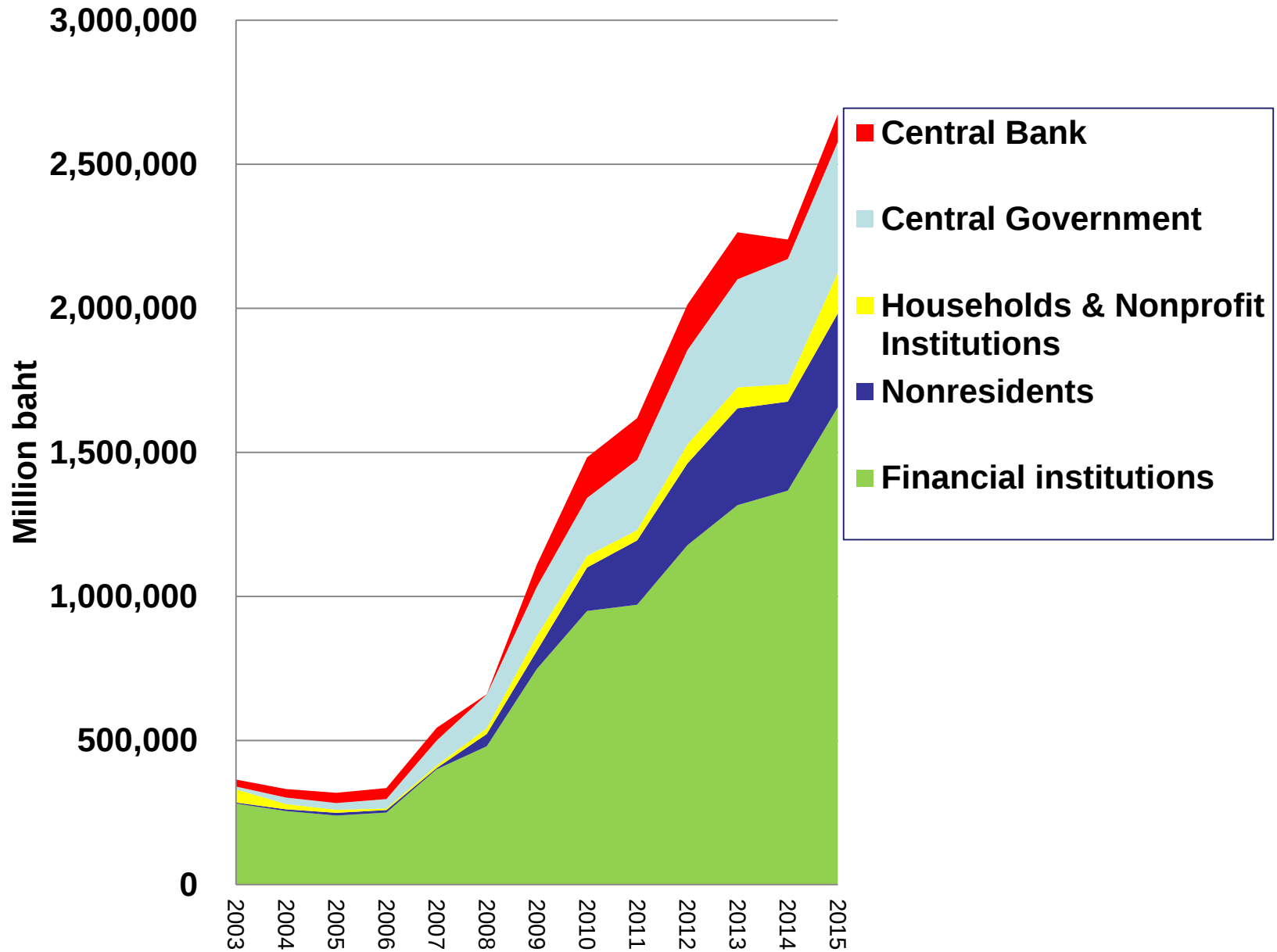
(3) **Bond finance**

subject to crowding-out effect, because higher interest rate might decrease private investment, money supply remains constant₈

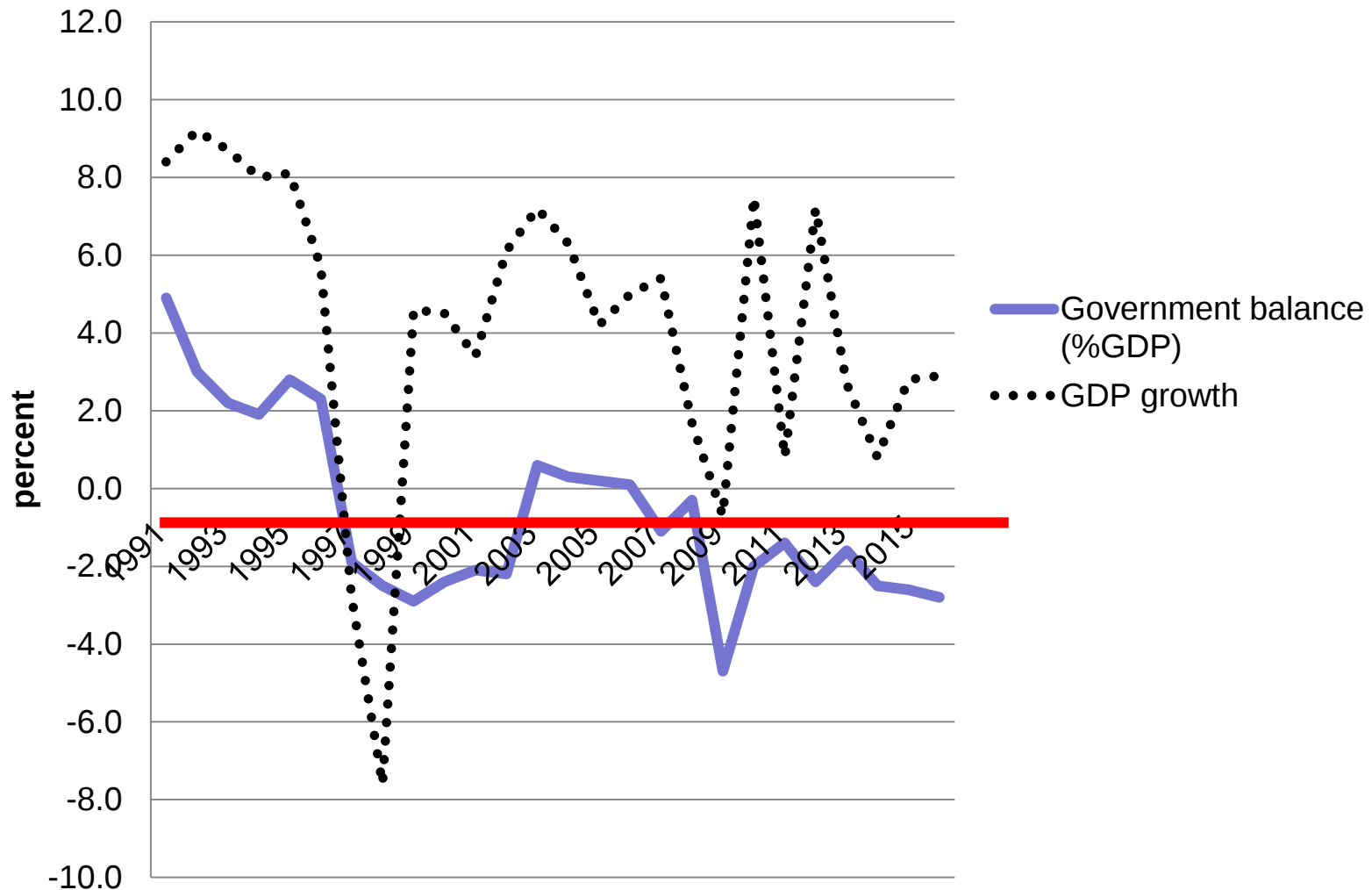
Three different methods of financing budget deficit, Which method is the best depends on output and inflationary gaps



Government Debt Classified by holders

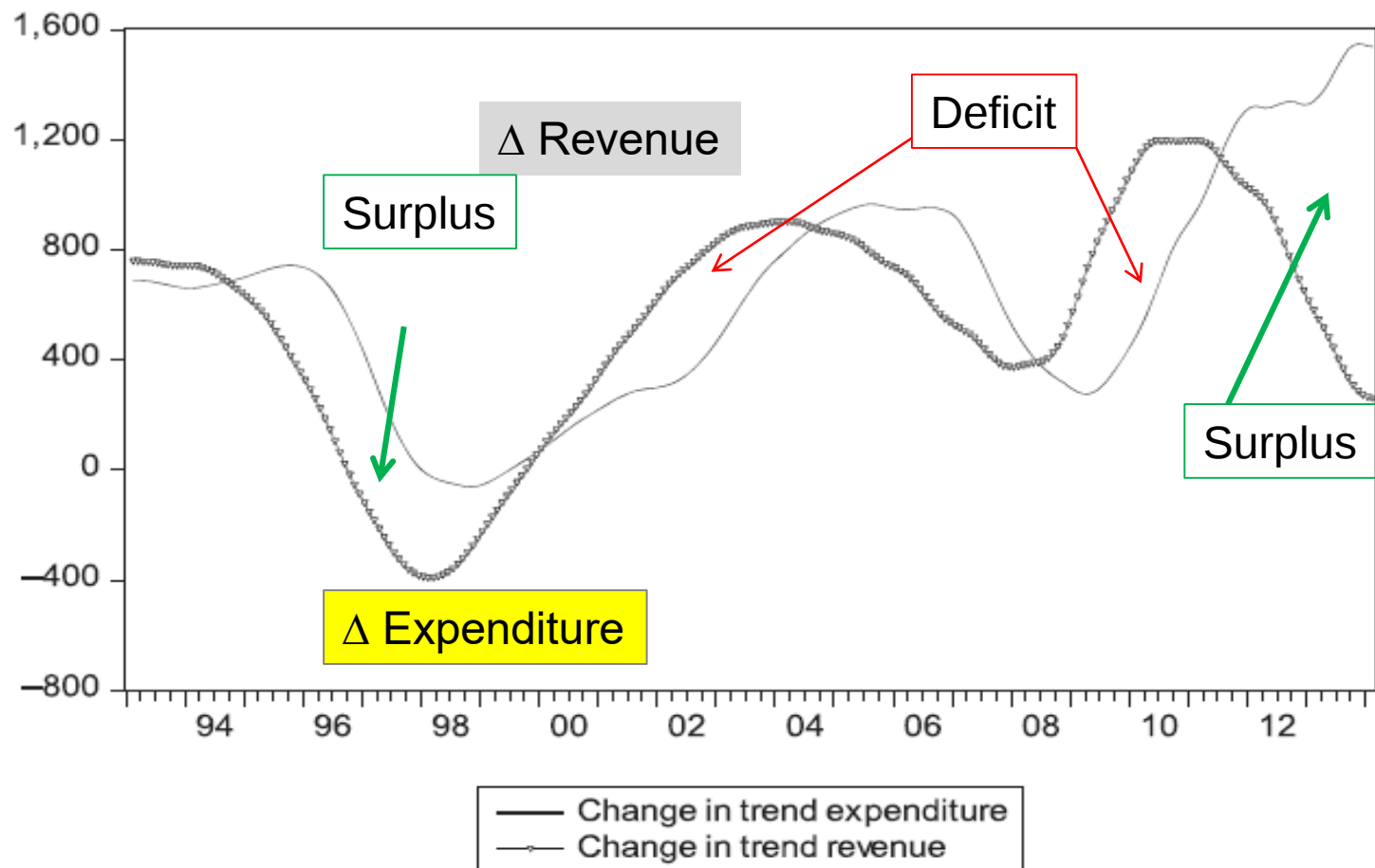


As the economy slows down, deficit rises



Fiscal stance (expansionary vs. contractionary) shown by structural surplus and deficit

Figure 3. Fiscal stance: Structural changes in trend fiscal variables



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.

Table 1: Correlation coefficients of fiscal surplus (% GDP)

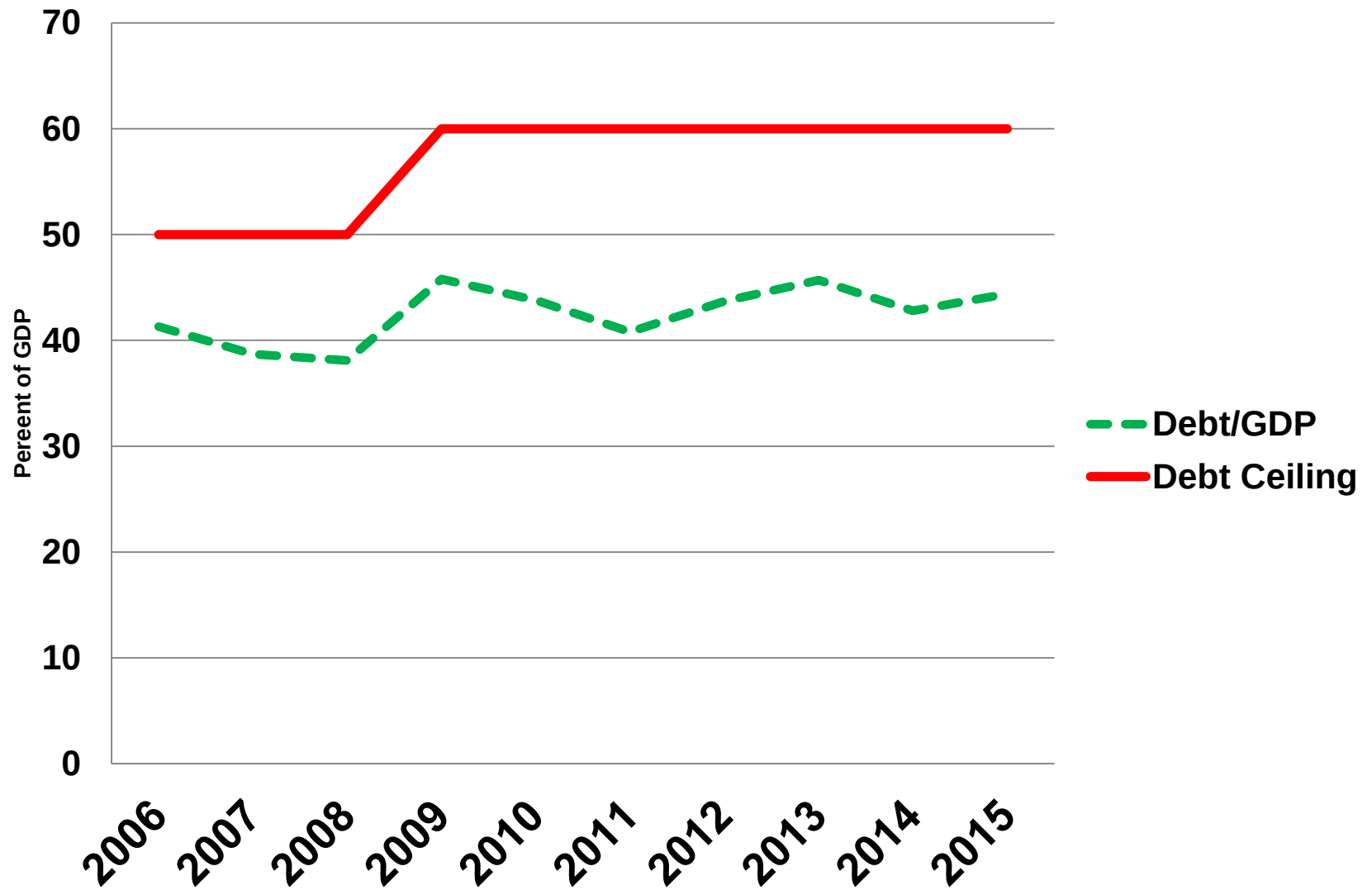
	Growth	inflation	Current Account surplus
1990-2012	0.66	0.55	-0.83
1990-1999	0.81	0.21	-0.87
2000-2012	0.44	0.65	-0.53

Source: Calculation is based on data from the Bank of Thailand.

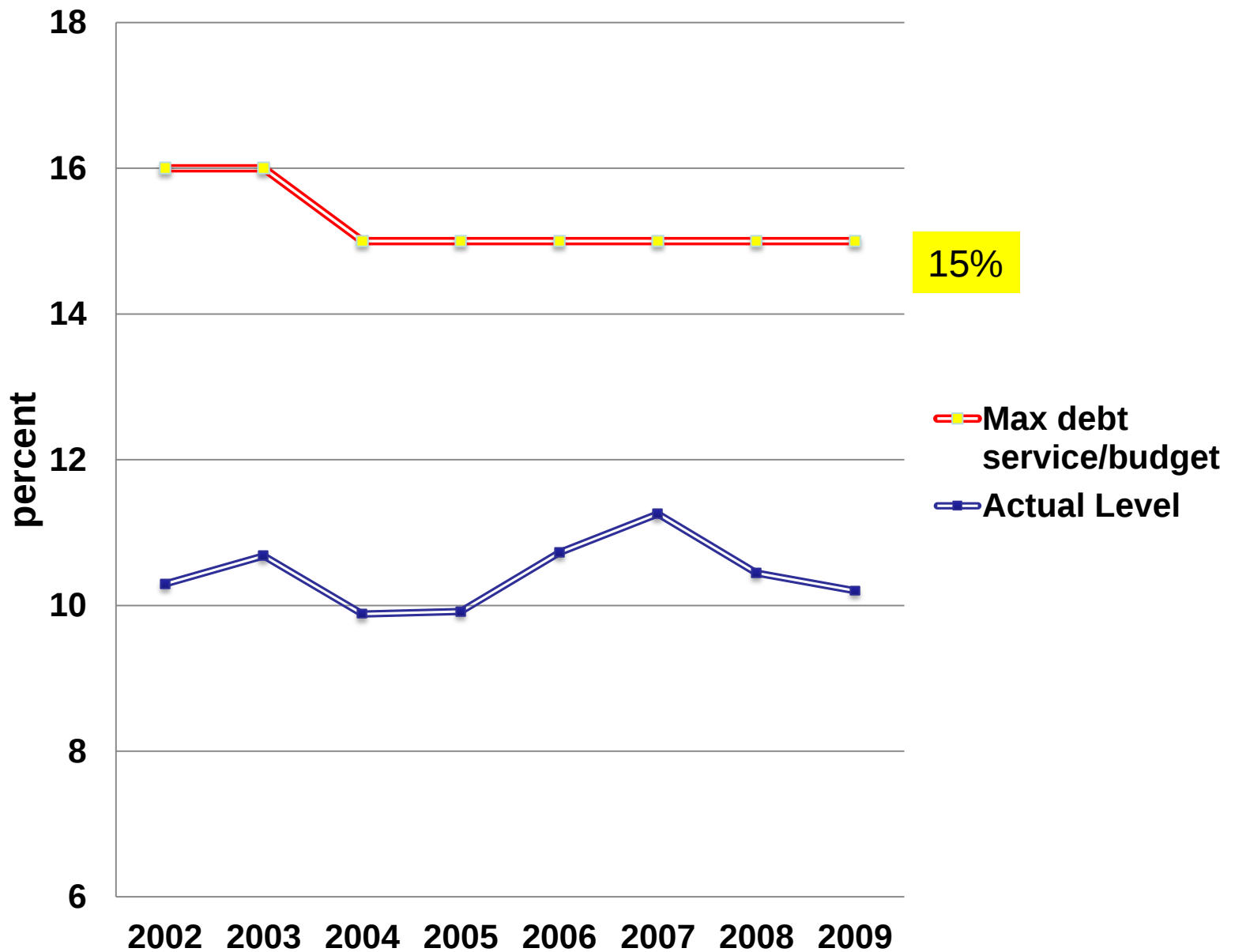
Four rules of fiscal sustainability

1. Size of public debt (below 60% of GDP)
2. Size of debt service (below 15% of total budget)
3. Public capital spending (above 25% of total budget)
4. Ratio of foreign debt-service to exports (below 5 %)

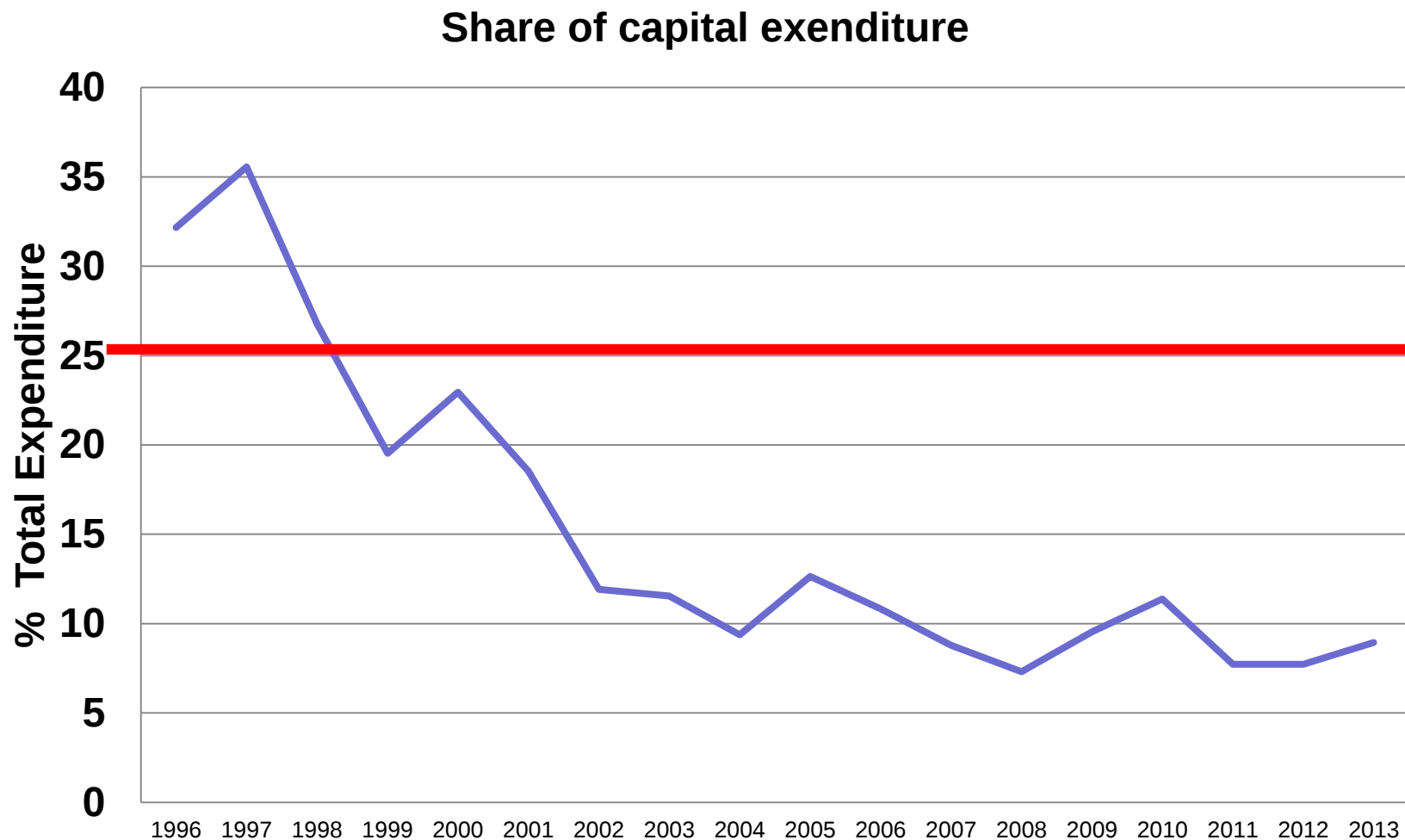
1. Debt Ceiling and Fiscal Space



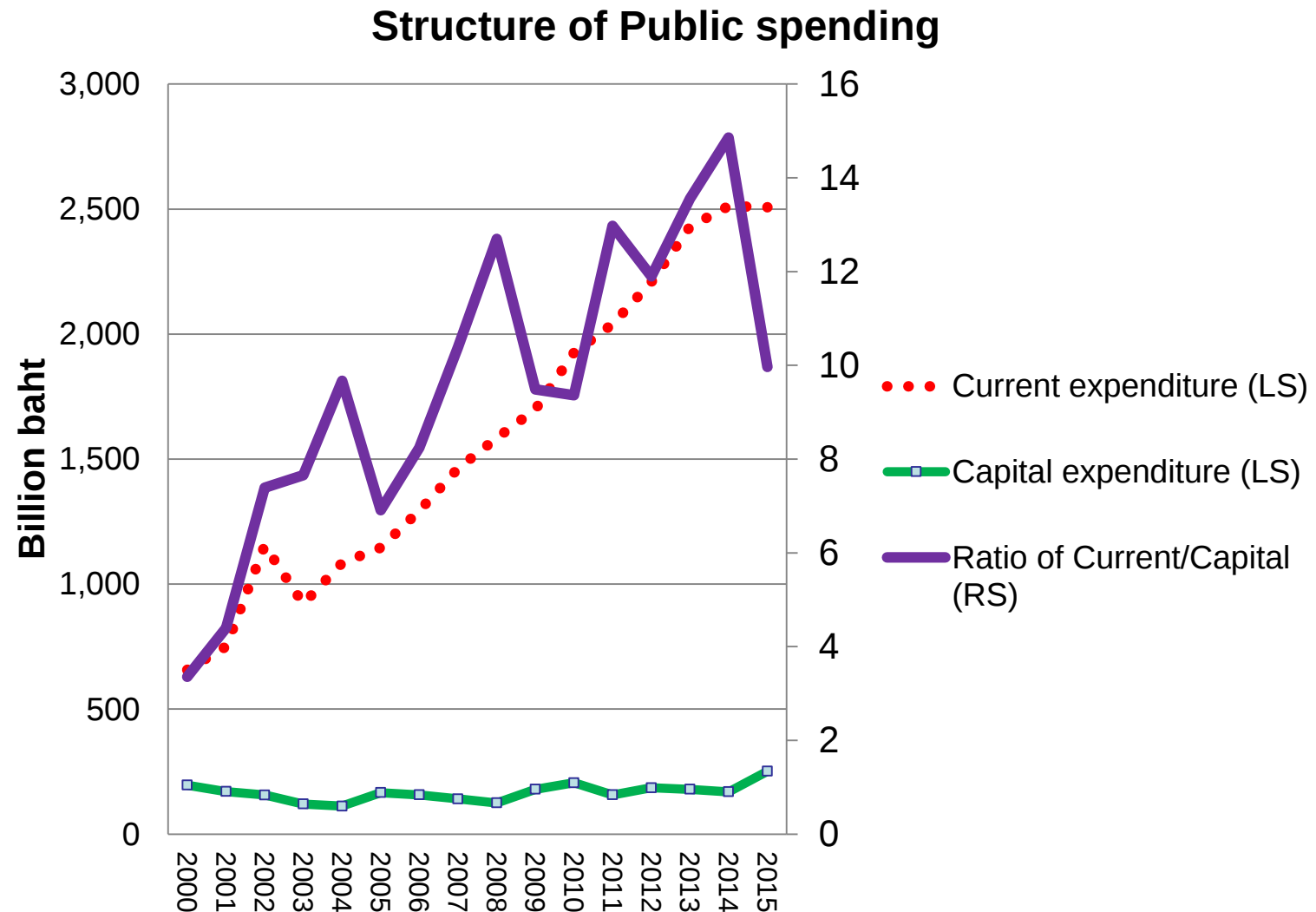
2. Debt Service in total budget



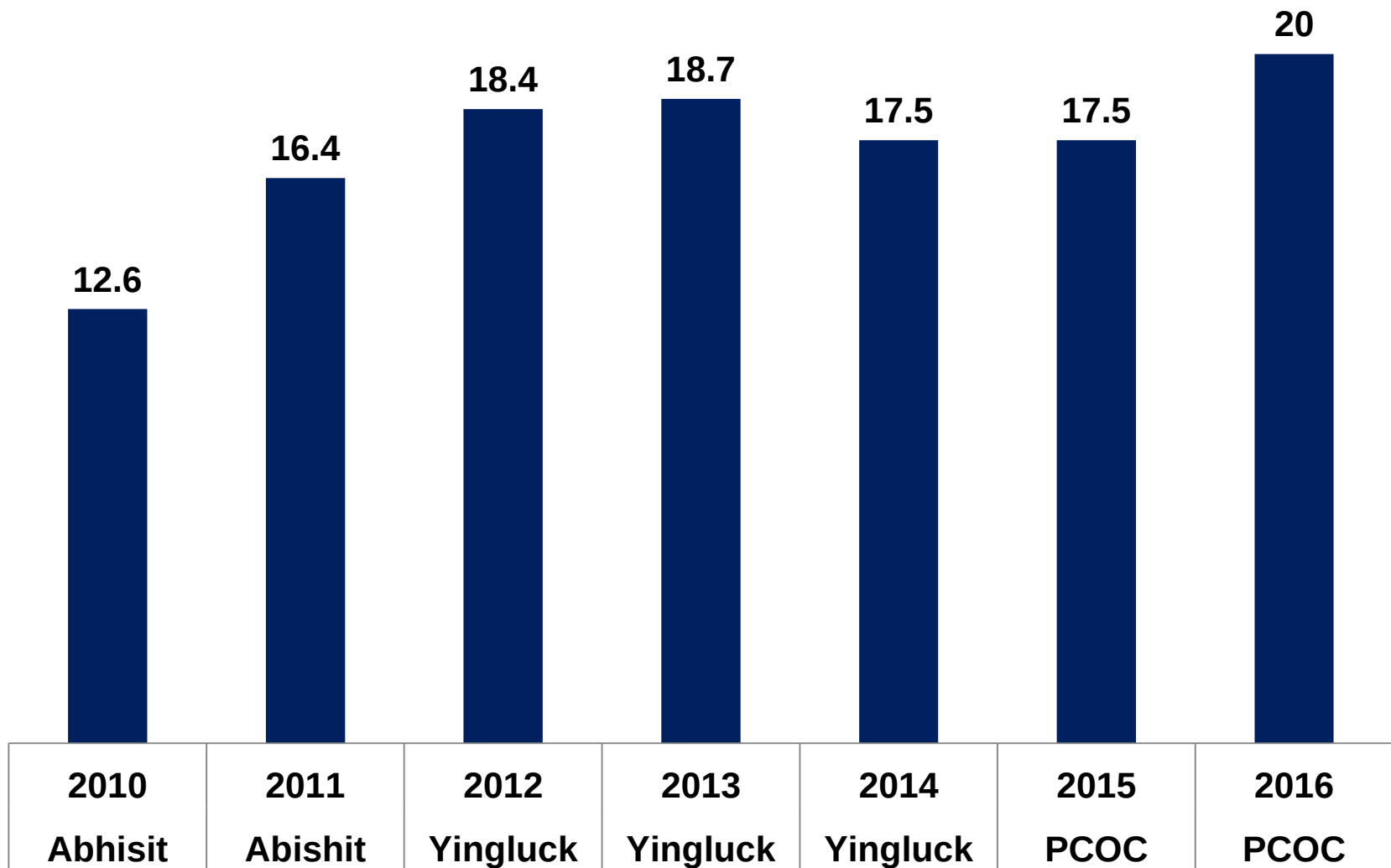
3. Capital spending must not fall below 25% in total budget



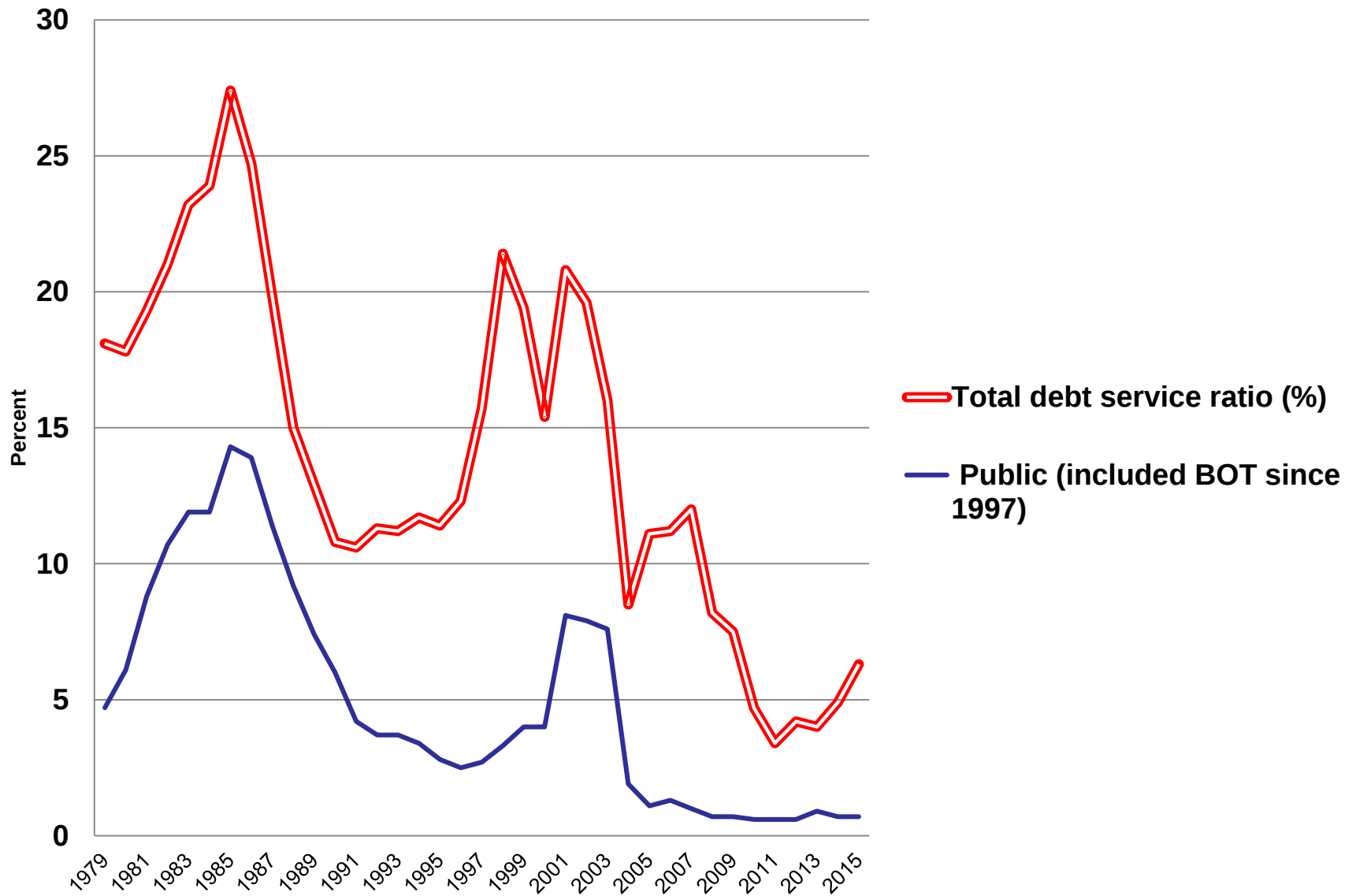
Public consumption and investment



**Share of public investment in various governments
(% total budget)**



4. Debt Service Ratio (% exports)



Fiscal variables, growth and output nexus

$$(1) \text{ Log}(R) = \alpha + \beta \cdot \log(Y) + \gamma \cdot \log(P)$$

$$(2) \text{ Log}(G) = \delta + \eta \cdot \log(Y) + \theta \cdot \log(P)$$

$$(3) = (1) - (2)$$

$$(3) \text{ Log}(R/G) = (\alpha - \delta) + (\beta - \eta) \log(Y) + (\gamma - \theta) \log(P)$$

Revenue/Expenditure = R/G

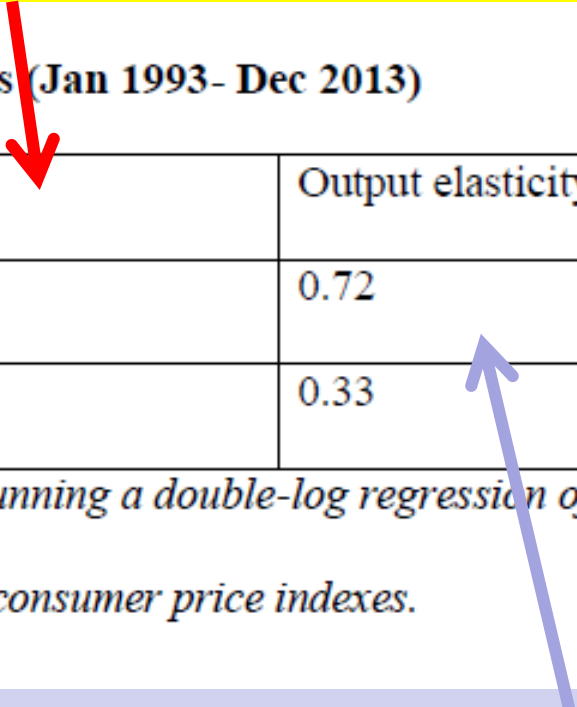
$R/G > 1$, indicating budget surplus

$$(3) \quad \text{Log}(R/G) = (\alpha - \delta) + (\beta - \eta) \log(Y) + (\gamma - \theta) \log(P)$$

*If $\beta > \eta$ and If $\gamma > \theta$
automatic stabilizer mitigates
the impact of booms and busts
on aggregate demand*

Expenditure rises (falls) faster than revenue during high inflation

Table 2: Revenue and expenditure elasticities (Jan 1993- Dec 2013)



	Price elasticity	Output elasticity
Revenue	0.65	0.72
Expenditure	1.51	0.33

Source: Estimated coefficients obtained from running a double-log regression of revenue and expenditure on manufacturing production and consumer price indexes.

Revenue rises (falls) faster than expenditure during booms (bust)

Inflation tax

- Public spending must be controlled during high inflation to avoid fueling inflationary pressure ($1.51 > 0.65$).
- 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.
- In Table 2: $0.72 > 0.33$; Output growth leads to revenue increases more than expenditure
- 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.

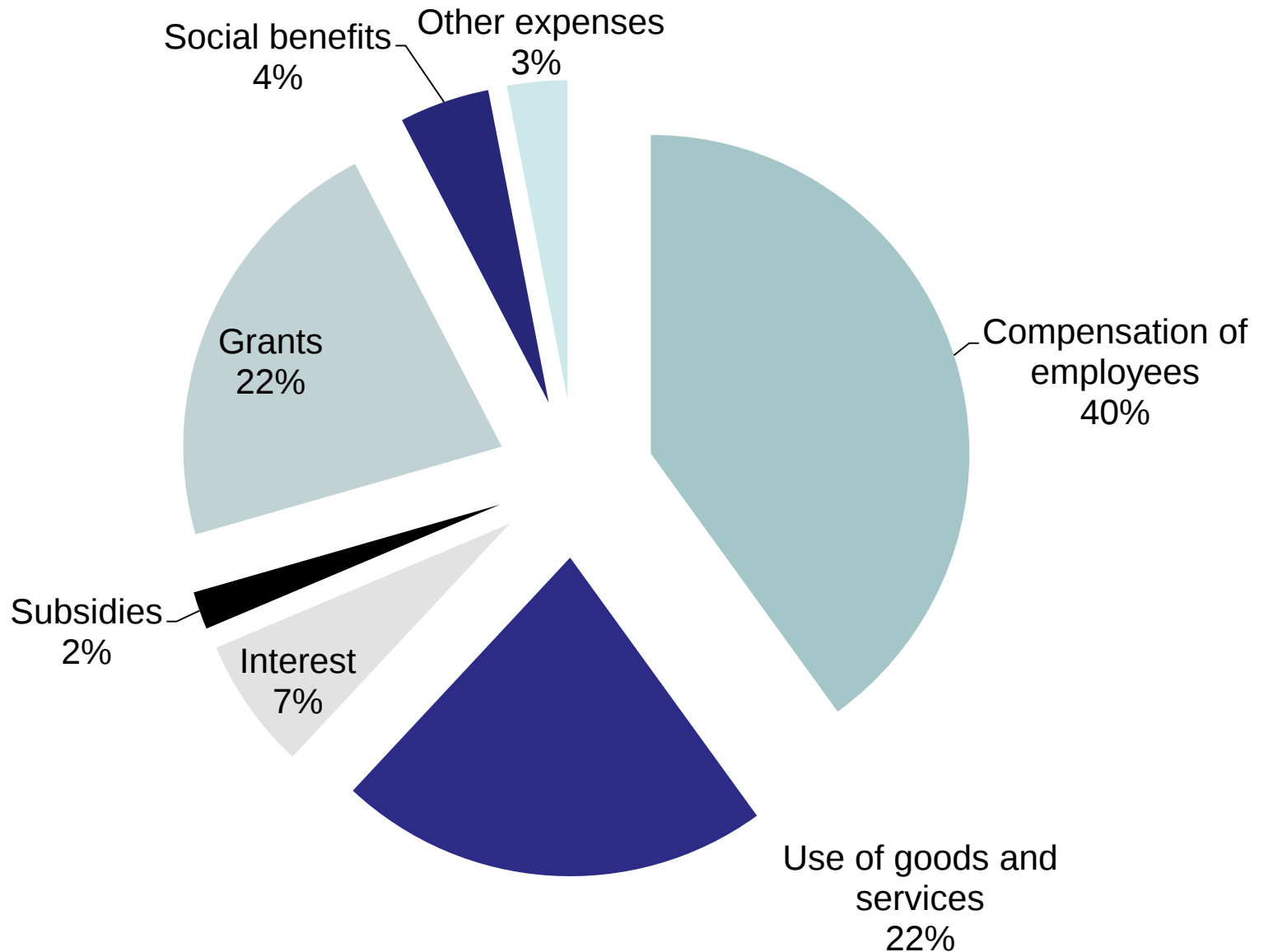
Addicted to populism

- 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.

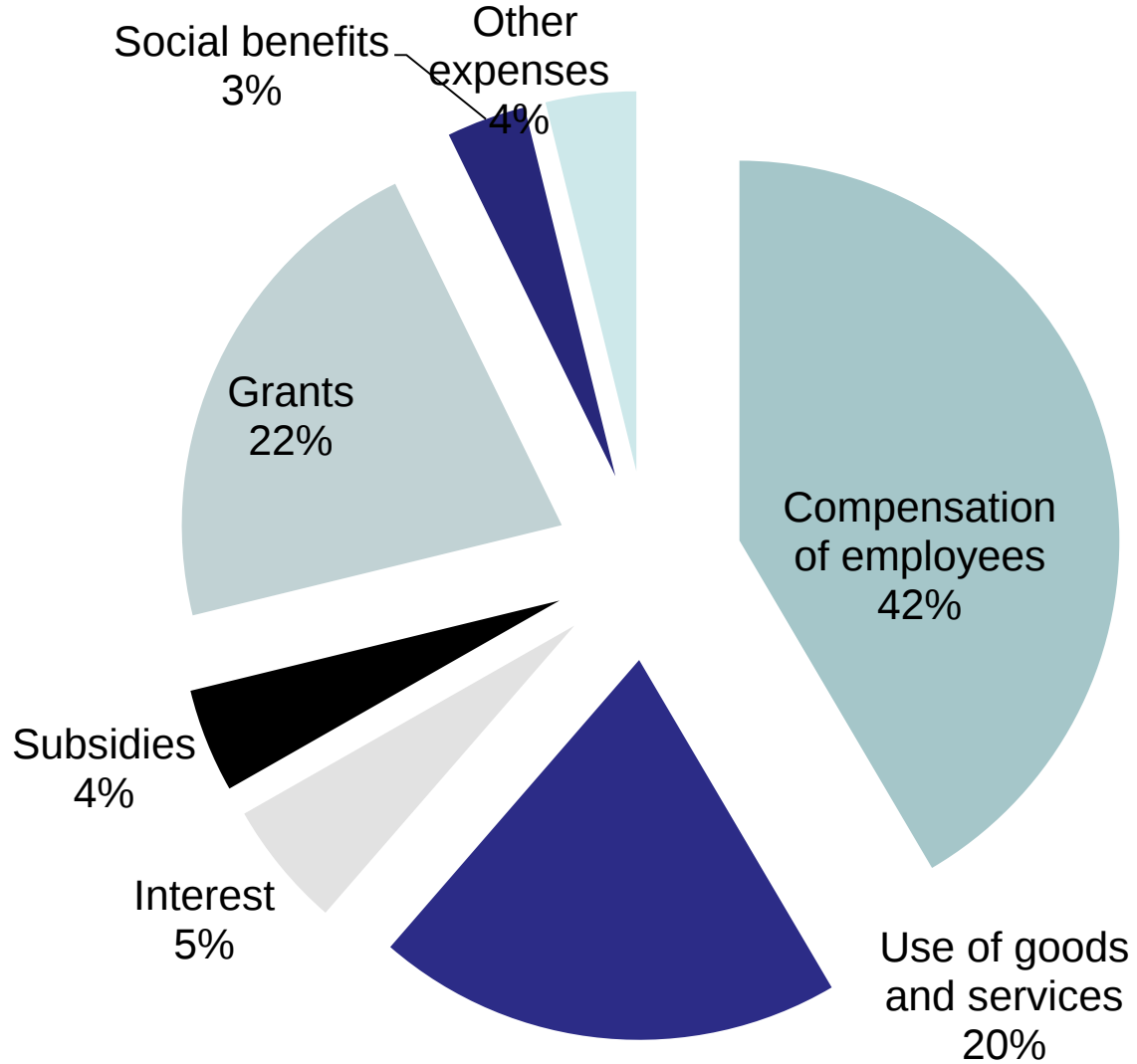
Stylized facts

- 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.

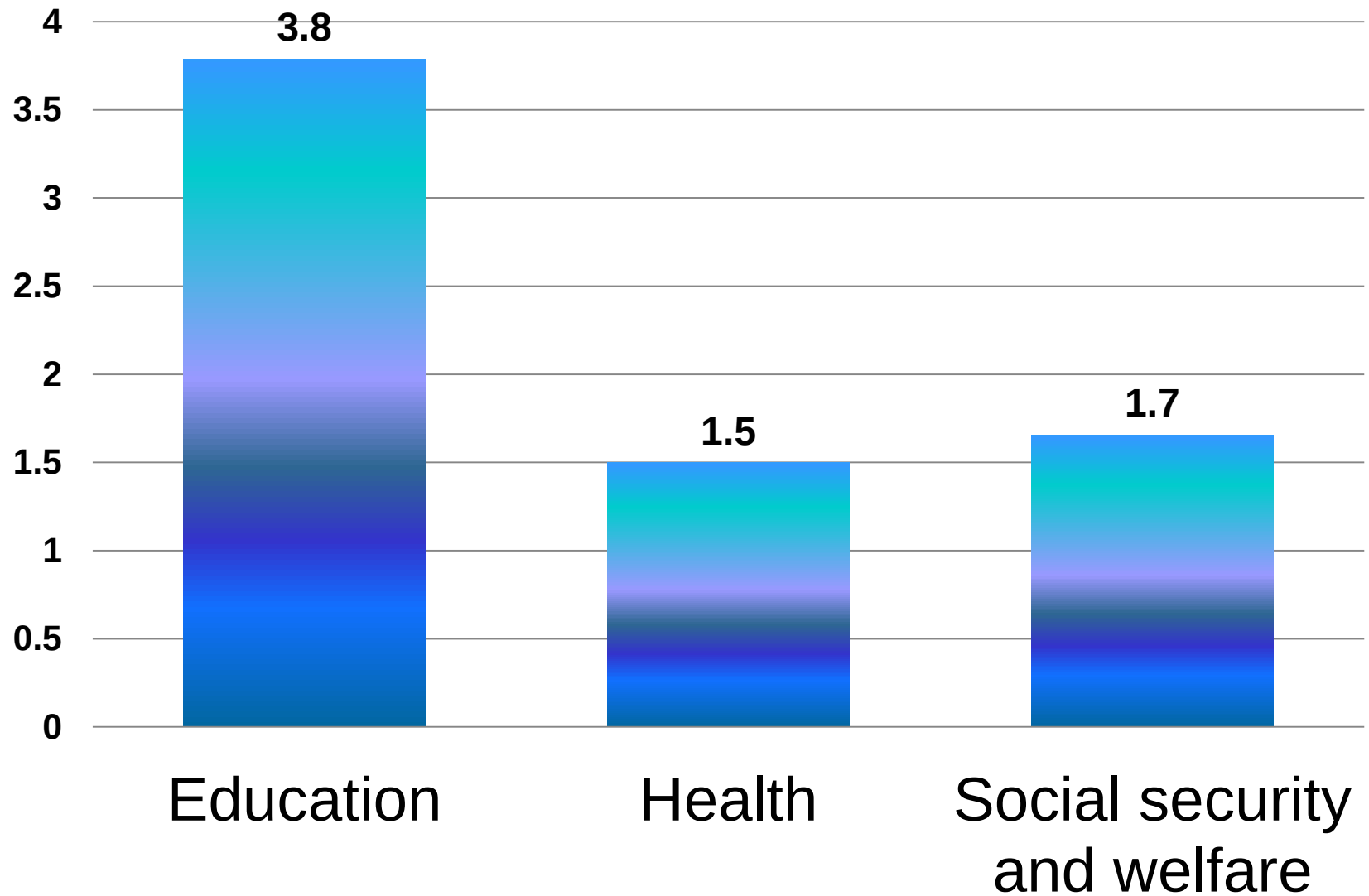
Allocation of Budget: 2009



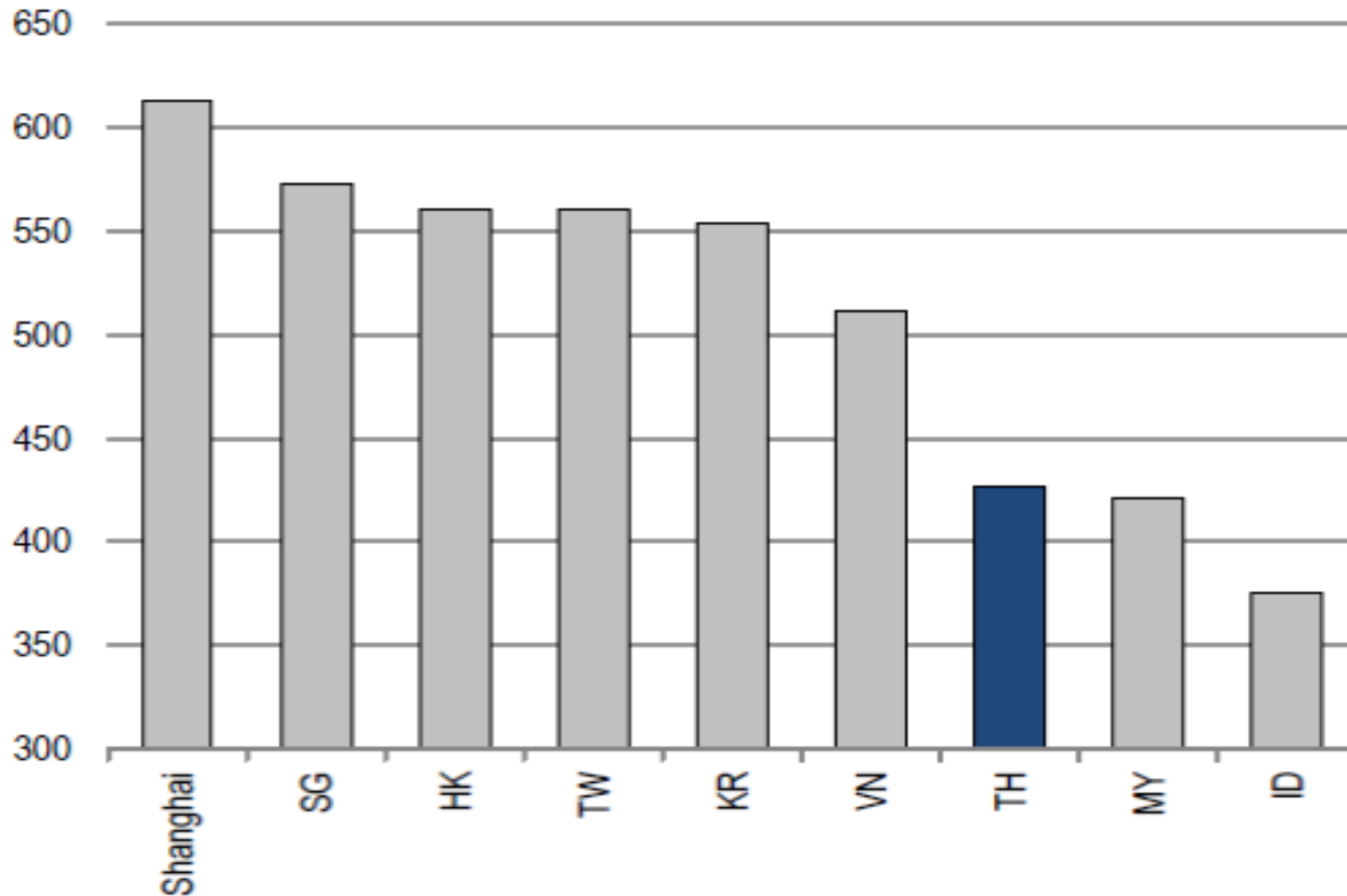
Budget Allocation: 2015



Expenditure by function: 2000-2015
Average percentage of GDP

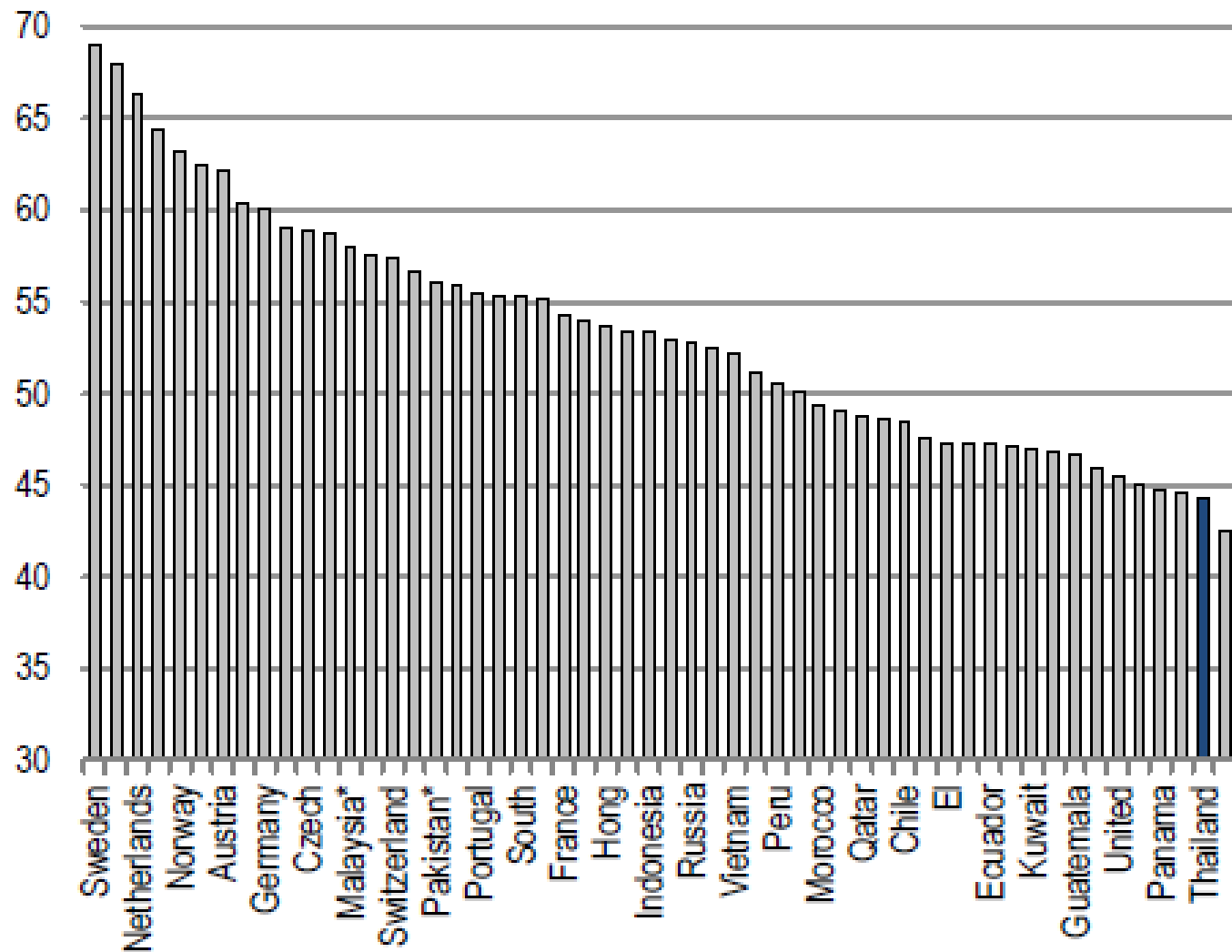


PISA math scores (same for Thailand's PISA science scores)



Source: OECD

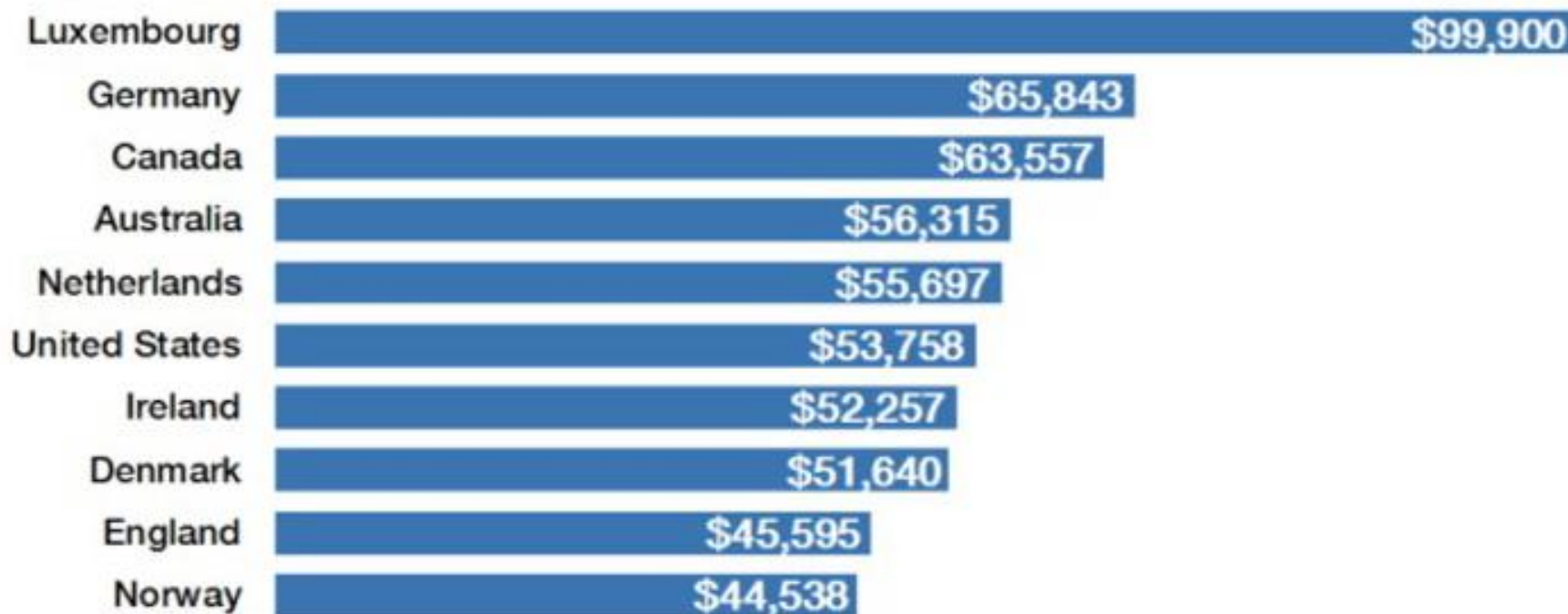
Figure 4: Thailand ranks last in Asia and second-worst of 54 countries in a private survey of English-language proficiency



Source: Education First

Where do teachers earn the most?

Annual salary (US \$) of lower secondary school teachers with 10 years experience, 2013.



Source: OECD

(World Economic Forum)

Public consumption vs. public investment

- Taxes on investment and income have a detrimental effect on growth since taxes reduce the private return to capital 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. (Complementarity between public and private capital stock)

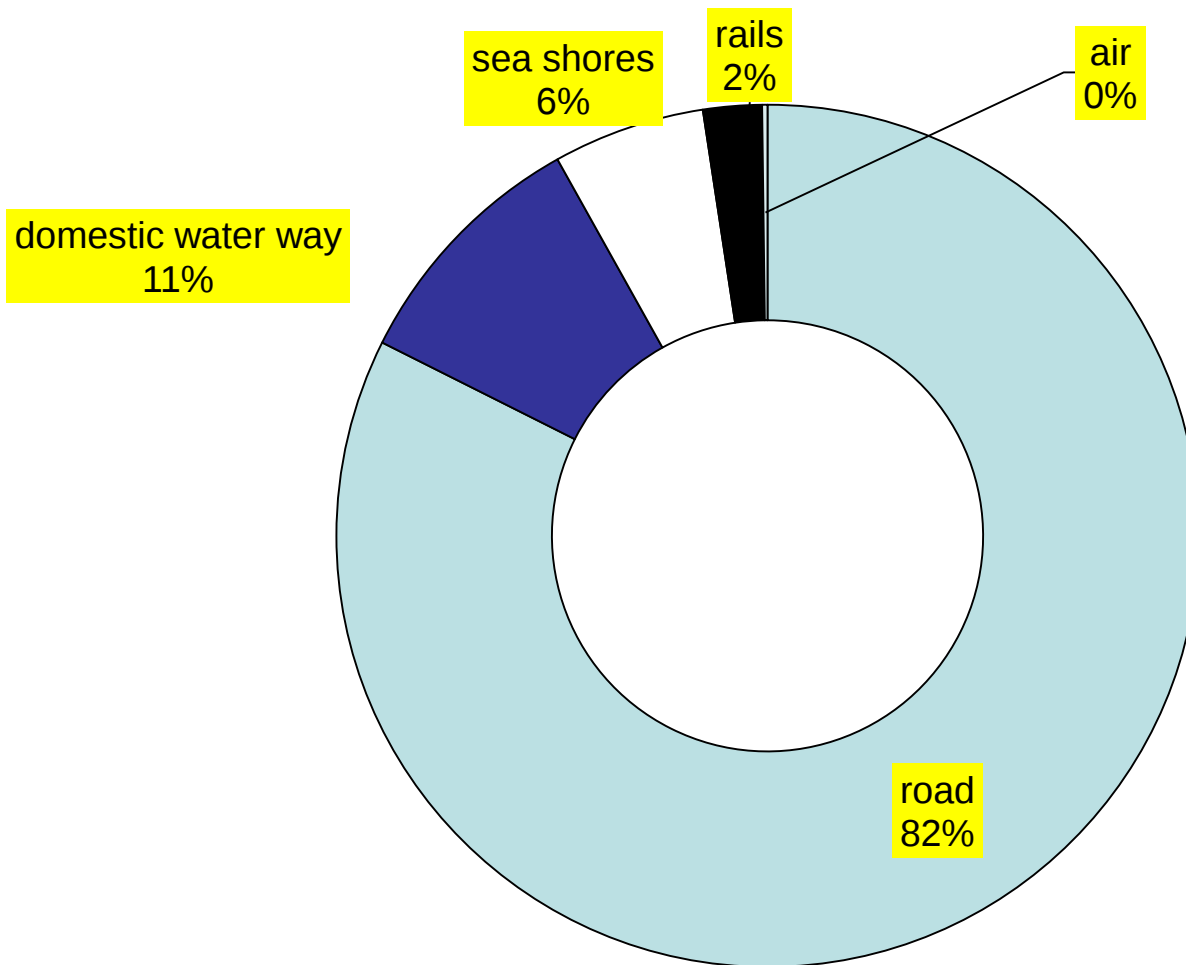
Capital vs. current (consumption) public spending

- Structure of public expenditure (ratio of public investment to public consumption) matters for long-term growth.
- Rising share of current spending is detrimental to long-term growth in the long-run.

Rules of effective fiscal policy

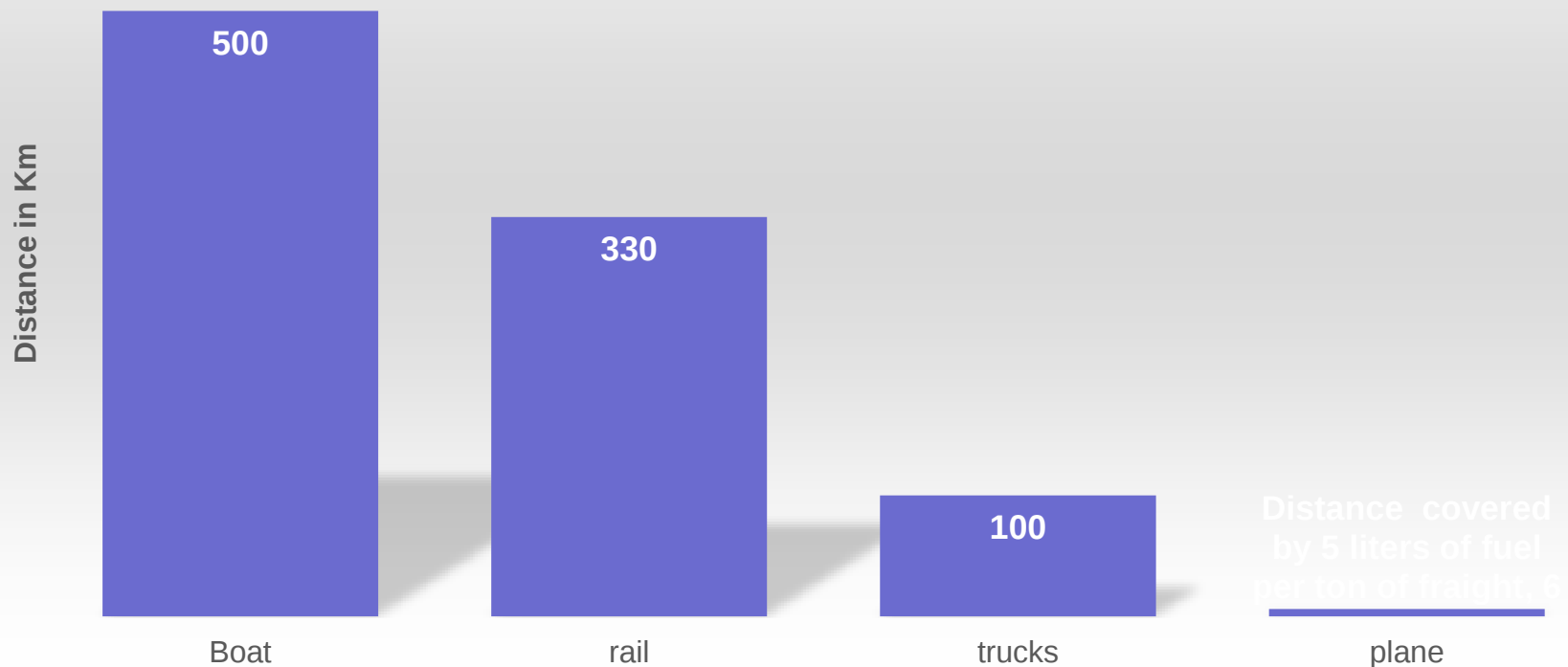
- Financing capital and current spending has impact on intergeneration transfers.
- Capital expenditure must be financed by bonds, since the benefits accrue to future generations.
- Current expenditure must be financed by contemporaneous taxes.
- Focus on the marginal benefits and marginal cost of infrastructure spending such as transportation and communications
- Thailand's Transportation Capital Stock

Thailand's mode of transportation % share



Efficiency differences of transportation modes

Distance (km) covered by different modes of transportation:
5 liters of fuel per ton of freight for the same amount of energy
consumed, carrying the same weight



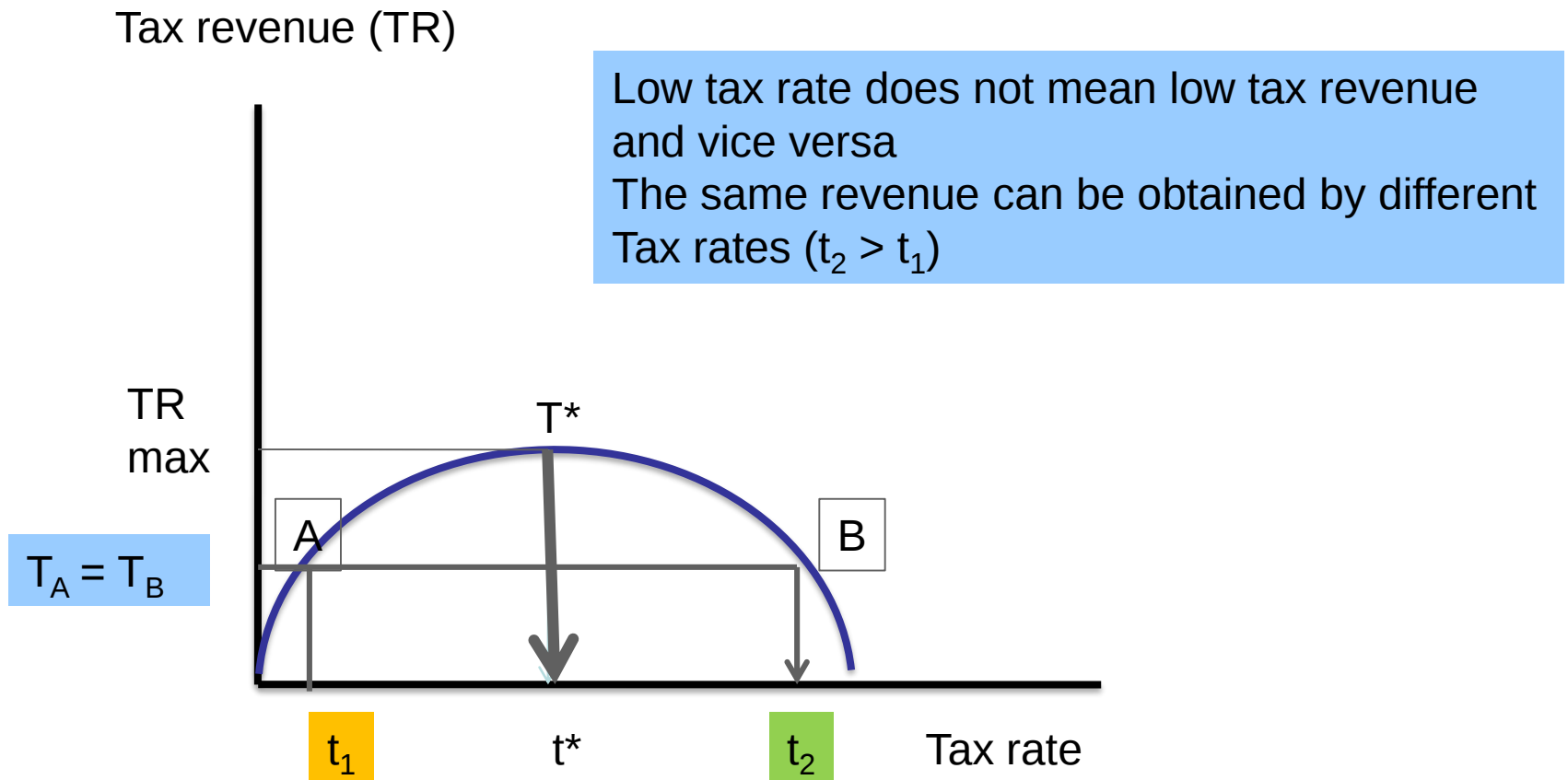
Most energy efficient

Least energy efficient

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.

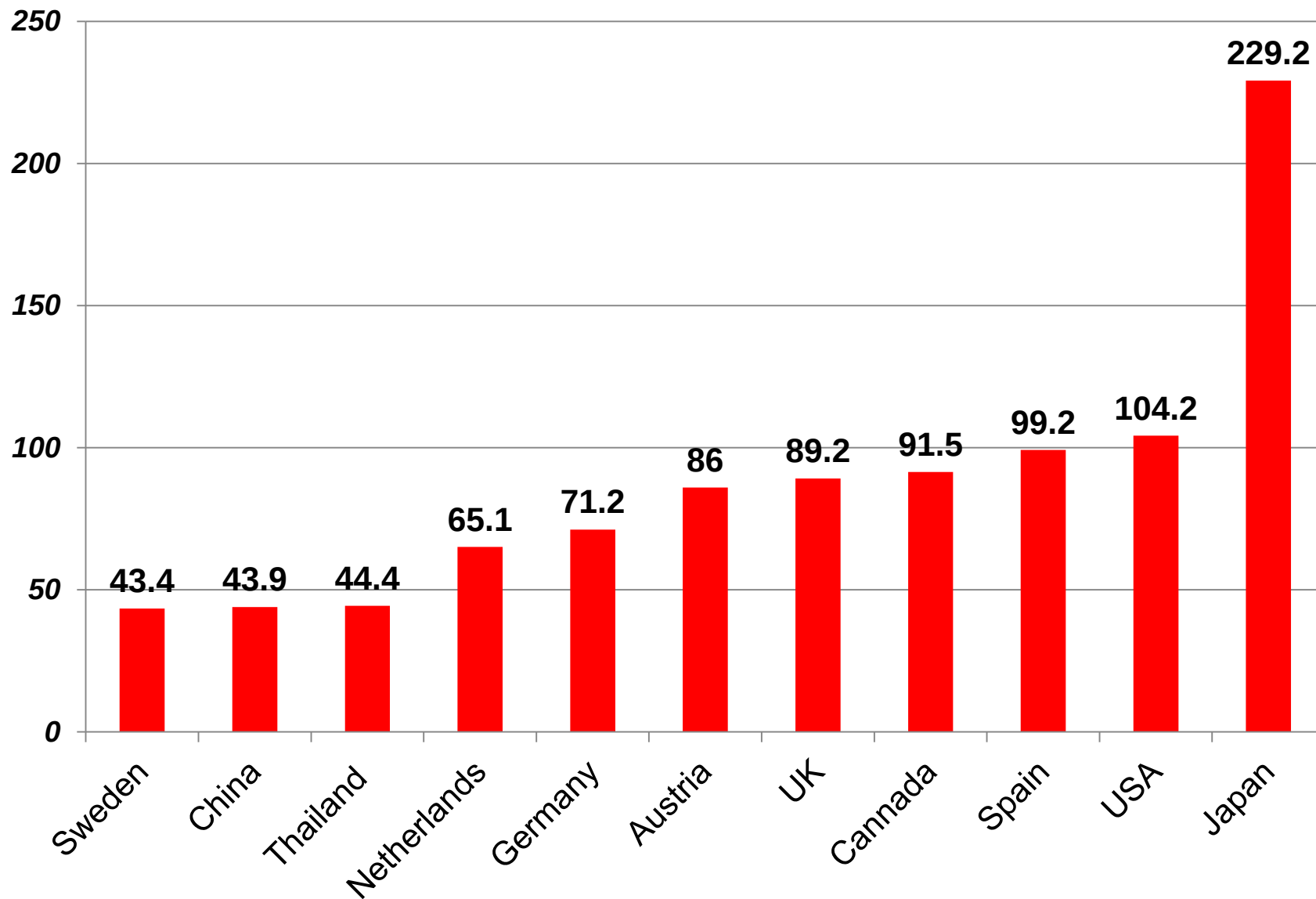
Laffer curve: tax rate and tax revenue nonlinear relationship



To raise or not to raise, that is the question!

- The effects of taxation on growth are difficult to insolate (other factors as well as the two way causation).
- ***Fiscal space*** is impaired by high debt-GDP ratio. The small fiscal space reduces the government's ability to counteract recession.
- Should the government raise the value added tax rate?
- Is there any limit to government spending?

Public Debt as percentage of GDP 2015



To stabilize the public debt

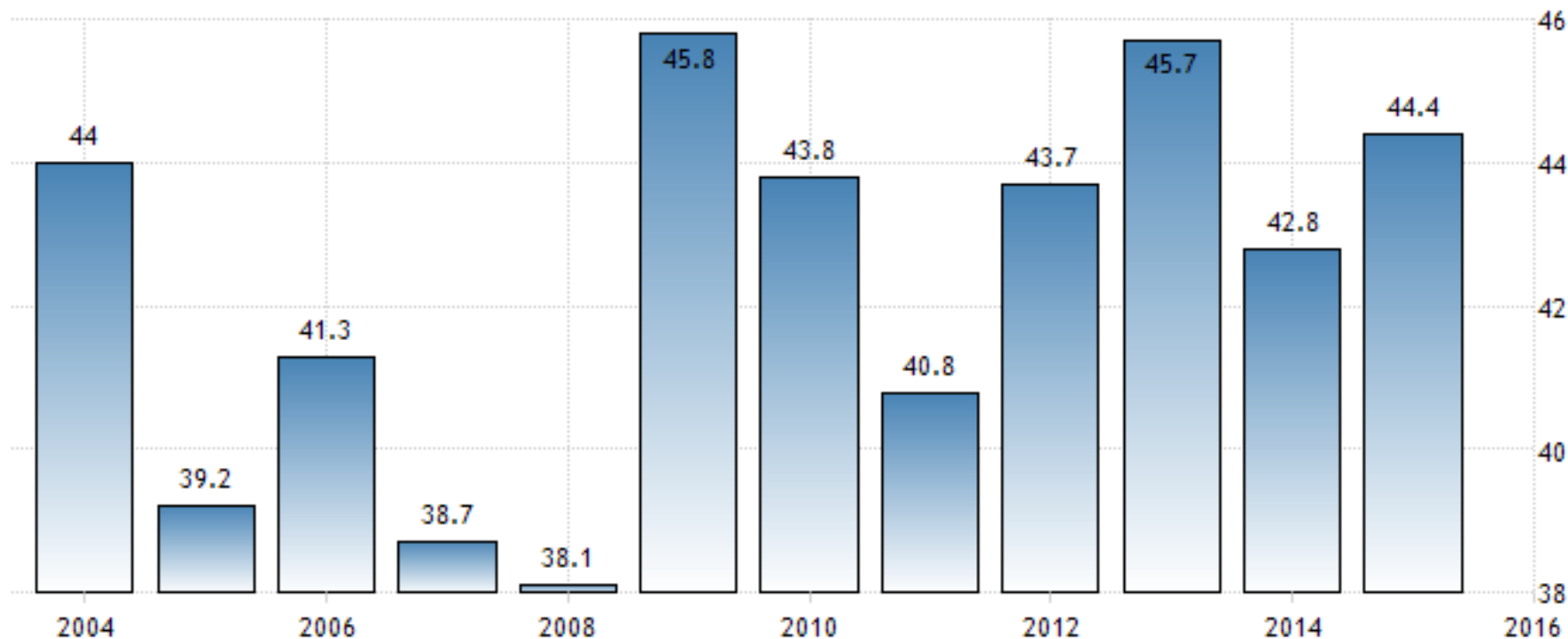
- To keep the Debt-to-GDP constant, the government must increase its primary surplus in line with the increase in $(r-g)$.
- The spending cuts or tax increases are likely to prove politically costly, generating even more political uncertainty and the need for an even higher interest rate.
- A sharp fiscal 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: $(G-T)/Y$
- G excludes interest payments for public debt

To reduce Debt/ GDP ratio, GDP growth rate (g) must exceed the cost of borrowing (r)

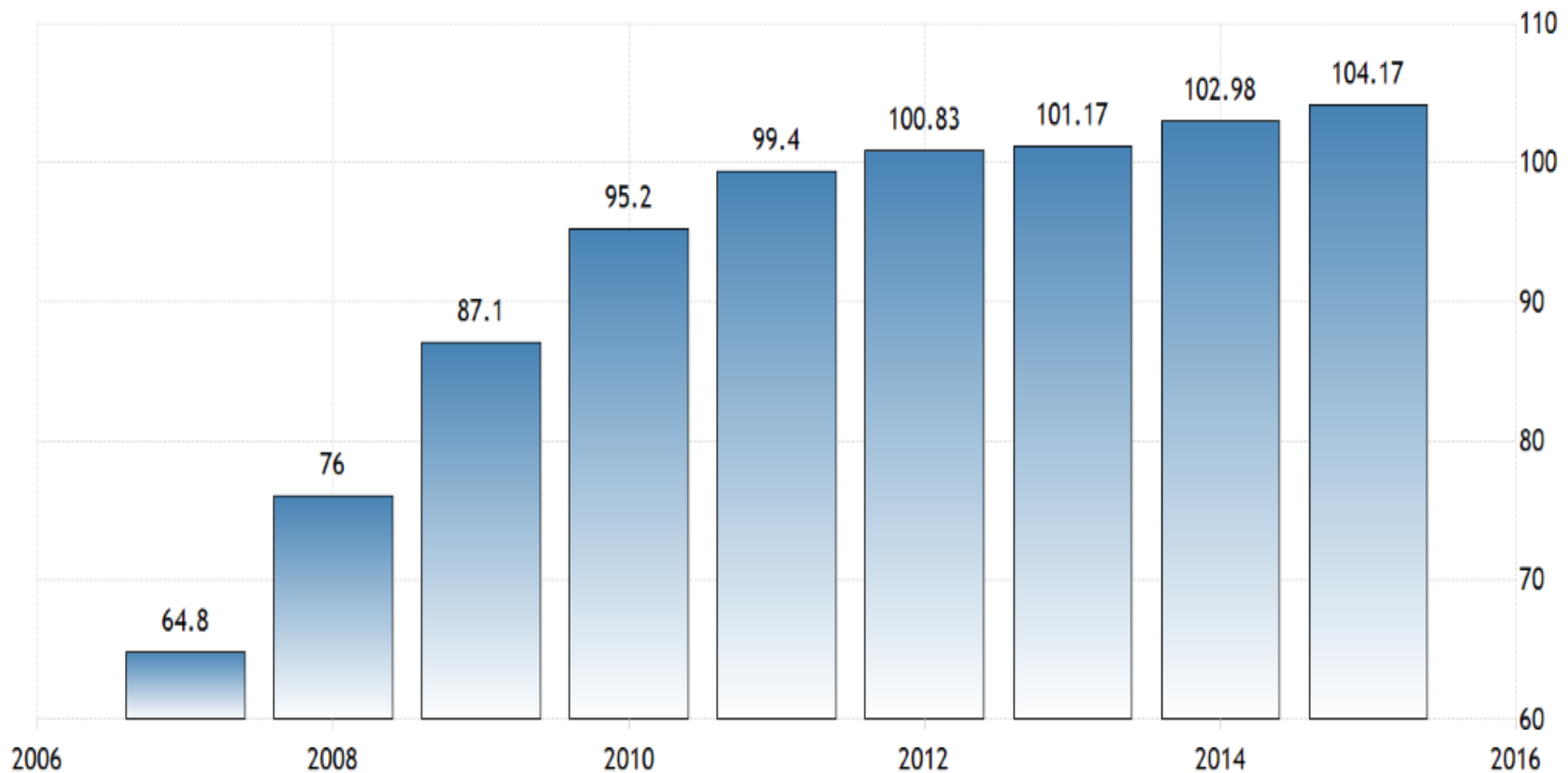
THAILAND GOVERNMENT DEBT TO GDP



US Government debt to GDP

Abundant fiscal space?

US GOVERNMENT DEBT TO GDP



SOURCE: WWW.TRADINGECONOMICS.COM | U.S. BUREAU OF PUBLIC DEBT

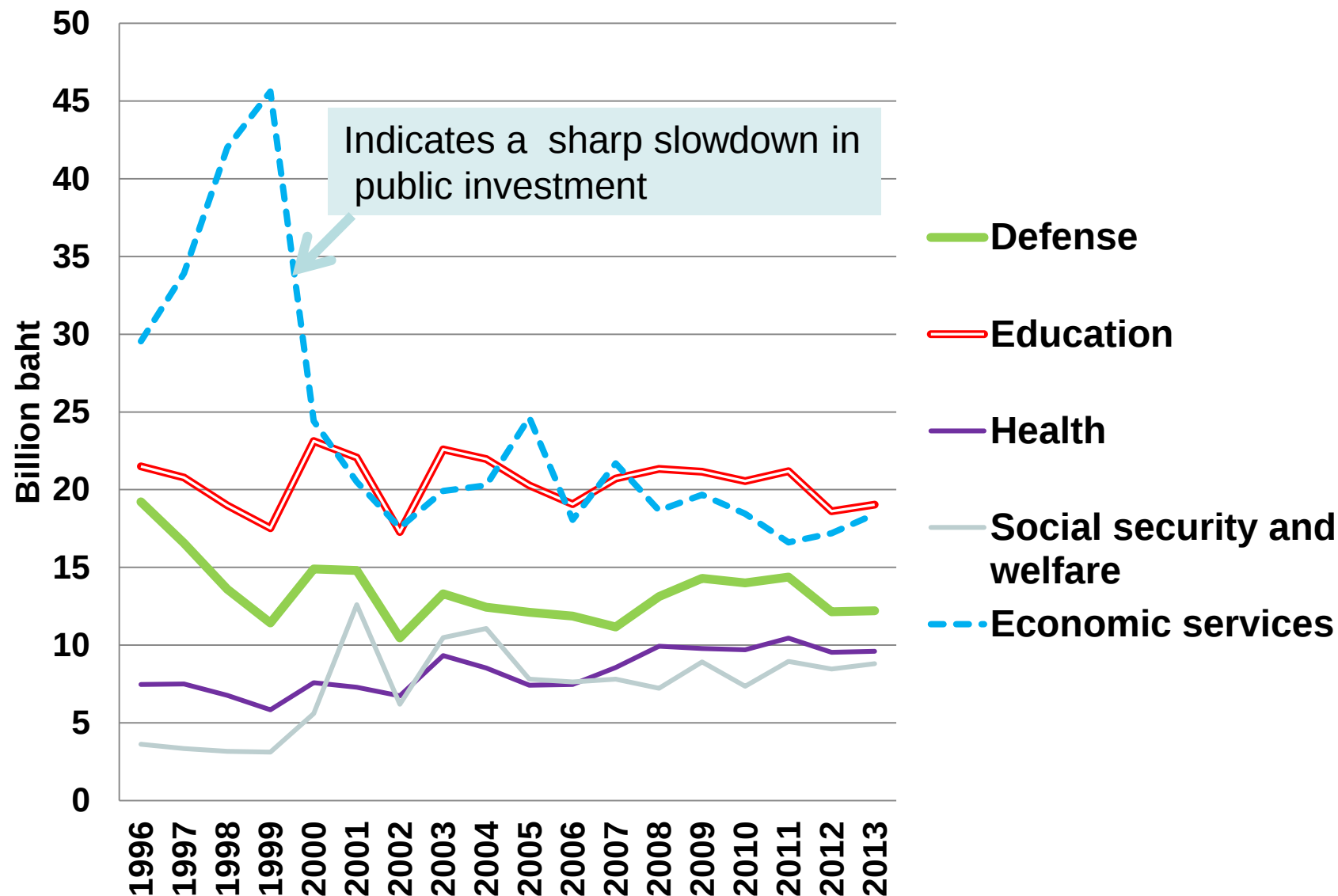
Japan government debt to GDP sufficient fiscal space?

JAPAN GOVERNMENT DEBT TO GDP



SOURCE: WWW.TRADINGECONOMICS.COM | MINISTRY OF FINANCE JAPAN

Public Expenditure by Functions



Will fiscal stimulus work?

- Fiscal policy was the only option left during export collapse and uncertain time.
- Fiscal multiplier effect might be limited if the government's income transfer is regarded as transient.
- Consumer confidence and favorable investor sentiment are required for effective fiscal stimulus.

Smile and spend: America's economy

Source: The Economist's expresso

April 25, 2017

- The Conference Board publishes its index for April.
- American shoppers seem to be in fine spirits, at least according to last month's survey: in March the index reached its highest level since December 2000.
- The University of Michigan, which publishes another measure of consumer sentiment, reported cheery results, too.

Main-Street mettle

US consumer confidence, 1985=100



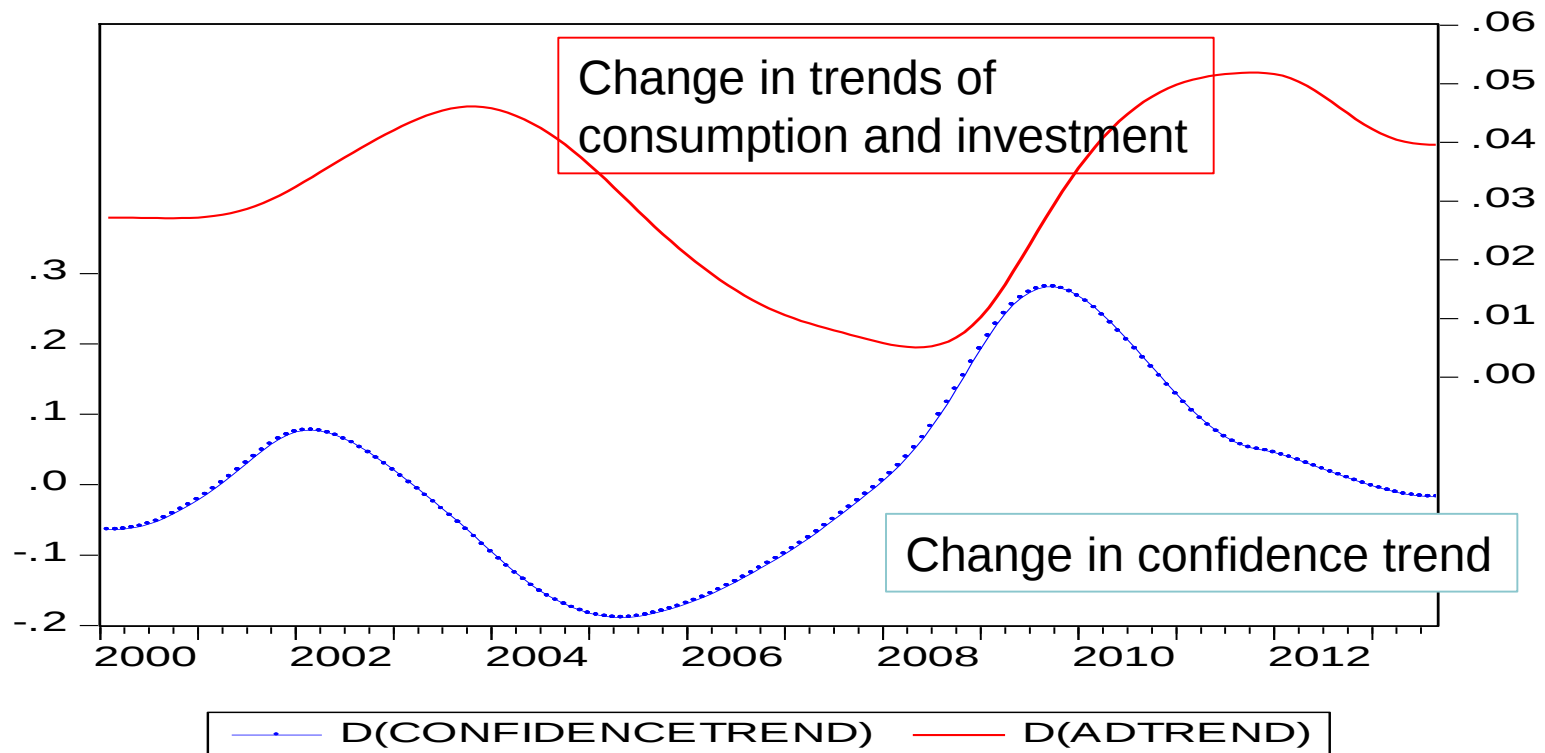
Sources: The Conference Board; Thomson Reuters

Confidence, consumption, and size of fiscal multiplier

- But many businesses are still waiting to see the benefits of this sunny mood.
- Personal consumption and retail sales have fallen in recent months.
- That is bad news for an already beleaguered retail industry.
- Several giant chains, including Macy's and JC Penney, are closing stores; HHGregg, an electronics retailer, and Payless ShoeSource, a seller of discount footwear, are among those recently filing for bankruptcy.
- Americans' spending may catch up with their professed confidence. Alternatively, the dip in spending may be a sign of trouble to come.

Thailand's relationship between confidence and aggregate demand

Confidence (lead) and Private Aggregate Demand (lag)



Conditions for effective fiscal stimulus

- Well-timed spending and taxing
- Macroeconomic stability (counter-cyclical)
- Fiscal sustainability must be maintained.
- Well-targeted spending to ensure the largest demand impact (spending towards high MPC group)

Conditions for effective fiscal stimulus

- Economy-wide (pervasive) liquidity constraints situation (sure spenders: spending should increase right after tax cuts)
- Permanent vs temporary policy changes (tax reform vs. temporary tax relief or spending e.g. Temporary tax cut and handouts to stimulate retail sales)

Fiscal strategies for long-term growth

- Role of automatic stabilizers cannot be underestimated: it is good to establish built-in stabilizers such as progressive income tax system.
- Contemporaneous tax finances only current expenditure, while capital expenditure can be financed by issuing government bonds: for fiscal sustainability and fairness
- MC and MB principle applies to choices of spending: submarine, tanks, F16s, vs. schools and hospitals.

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 government must remain committed to its plan of tax reform as tax revenue is too low.
- Here is the new tax structure by PCOC government

A new personal income tax structure aims to induce high-income earner to pay tax and enhance Thailand's competitiveness

Unit: Baht

Tax structure			
Tax rate		New taxable income	Current taxable income
Exempt	▶	0-150,000	0-150,000
5%	▶	150,001-300,000	150,001-300,000
10%	▶	300,001-500,000	300,001-500,000
15%	▶	500,001-750,000	500,001-750,000
20%	▶	750,001-1,000,000	750,001-1,000,000
25%	▶	1,000,001-2,000,000	1,000,001-2,000,000
30%	▶	2,000,001-5,000,000	2,000,001-4,000,000
35%	▶	More than 5,000,000	More than 4,000,000



Good news
For the rich

Tax allowances		
Allowances	New structure	Current structure
Personal allowance	▶ 60,000 baht	30,000 baht
Expense allowance	▶ Up to 50% of annual income but not exceeding 100,000 baht	Capped at 40% of annual income but not exceeding 60,000 baht
Child allowance	▶ 30,000 baht per child; no limit for the number of kids, with no education allowance	15,000 baht per child; limited to three kids, with an education allowance of 2,000 baht per child

Good news
For the poor

Fiscal space and conservative fiscal policy

- 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.
- If Debt-to-GDP is low, it provides fiscal space for the government to counteract future external shocks.

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.
- 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?