

Macroeconomic perspective on the Thai Economy: 1961-1990

Bhanupong

Lecture 3

*The first three decades of Thailand's economic
development*

Course Syllabus

Lecture 3: Early Economic Development--The first three decades: 1961-1990

- What can we learn from the historical path of Thailand's economic development? What were factors contributing to the **rapid and stable growth** in the first three decades of Thailand's development planning?
- Reading: "Thailand" in ***Asia Rising***, Hal Hill and Maria Socorro Gochoco-Bautista (eds.) Cheltenham: Edward Elgar and ADB, pp. 345-384. 2013.

Key words

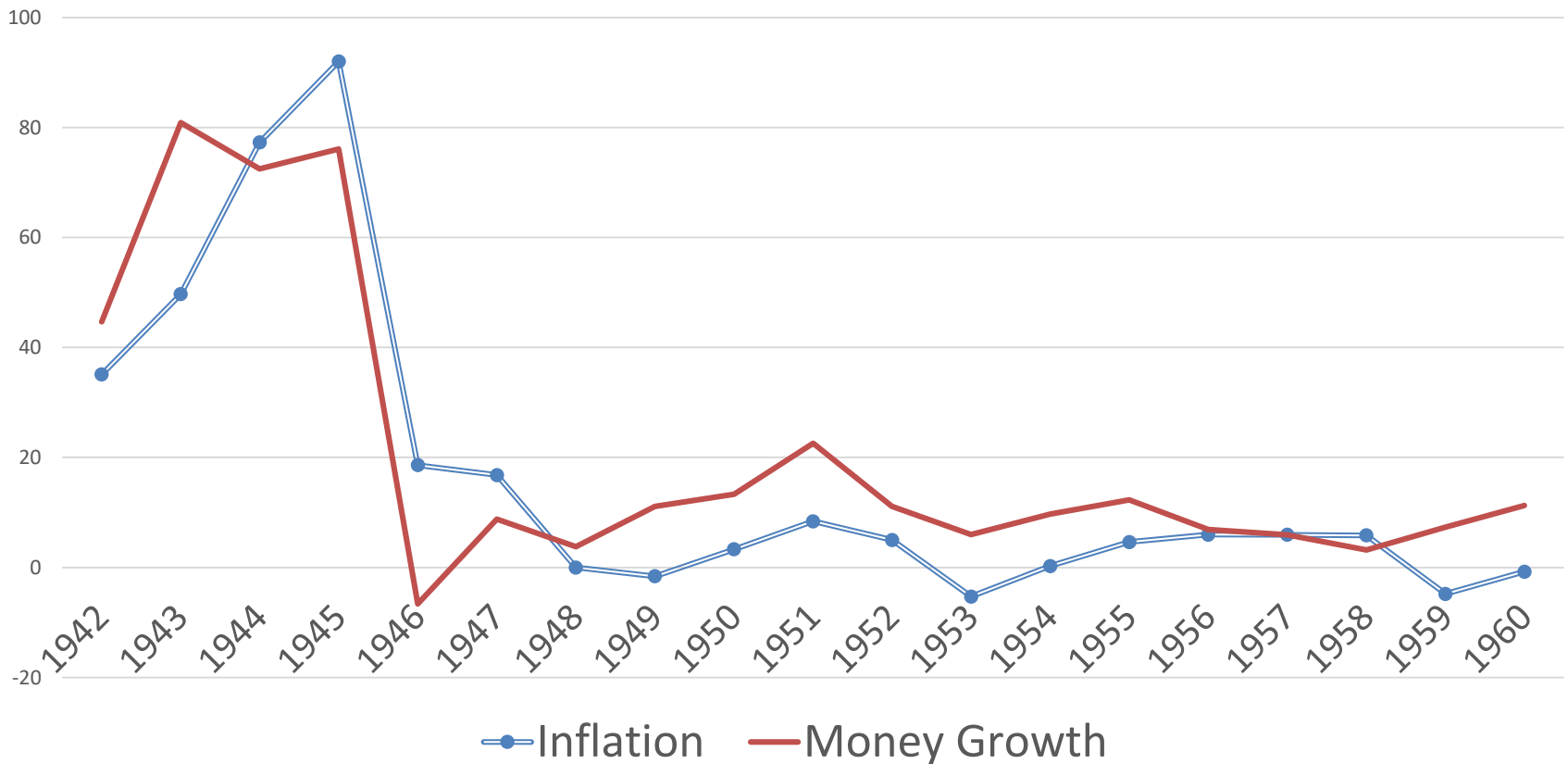
- Hyperinflation
- Multiple exchange rates
- Growth drivers
- Exports and economic growth
- Stable and sustainable growth path
- Finance and development
- Fiscal discipline

Before the 1960s

- During World War II, the massive spending of Japanese military force in Thailand was financed by printing money.
- The rapidly growing money supply led to hyperinflation.
- Inflation peaked at 92 % in 1945, when money supply expanded by 76 %.

Monetarist view:
Inflation is always and every where a monetary phenomenon
(Milton Friedman)

Figure 1. Hyperinflation and Money Supply Growth (percent)



How did Thailand deal with hyperinflation?

- After the WWII, excessive growth of money supply was contained by the issuance of long-term bonds to absorb the money supply.
- A negative growth rate of the money supply was observed in 1946 together with a plunge in the inflation rate.
- Controlling the money supply is necessary to curb hyperinflation.
- But curbing inflationary expectations was also equally important.
- ***Multiple exchange rates***

Velocity rises during hyperinflation

$$\dot{x} = d \log(x) / dt = \frac{dx}{dt} (1/x) = \frac{\Delta x}{x}$$

$$MV = PQ$$

$$\dot{M} + \dot{V} = \dot{P} + \dot{Q}$$

$$\dot{P} = \dot{M} + \dot{V} - \dot{Q}$$

During hyperinflation, $\dot{P} \longleftrightarrow \dot{V}$

Phillip Cagan (1956)

The monetary dynamics of hyperinflation

- During hyperinflation, the expected rate of inflation increases.
- The increased opportunity cost of holding real money balances reduces the demand for them.
- The elasticity of the demand for real balances with respect to the expected rate of inflation:
 η

Cagan's Demand for real money balances during hyperinflation

$$\left(\frac{M}{P}\right)^d = AY^\beta \pi^\eta$$

π = expected rate of inflation

$$\ln\left(\frac{M}{P}\right)^d = \alpha + \beta \ln Y + \eta \ln \pi$$

The monetary dynamics of hyperinflation

- If $|\eta| > 1$, the demand for money would be a destabilizing factor; causing people to spend money on goods in their attempt to reduce their real money balances when they expect inflation to rise further.
- ***The velocity of money rises during hyperinflation***
- The inflationary process would be self-perpetuating.

History of super hyperinflation

- Yugoslavia 1992-1994: 3.13 billion %
- Zimbabwe 2006-2008: $7.96 \times 10^{10}\%$
- Zimbabwe in 2009: 500,000,000,000%
- **A new currency (Currency reform)** is required to wipe out past inflationary expectations
- Dollarization

Where did this hyperinflation take place?

Wholesale Price Index	
July 1914	1.0
Jan 1919	2.6
July 1919	3.4
Jan 1920	12.6
Jan 1921	14.4
July 1921	14.3
Jan 1922	36.7
July 1922	100.6
Jan 1923	2785.0
July 1923	194,000.0
Nov 1923	726,000,000,000.0

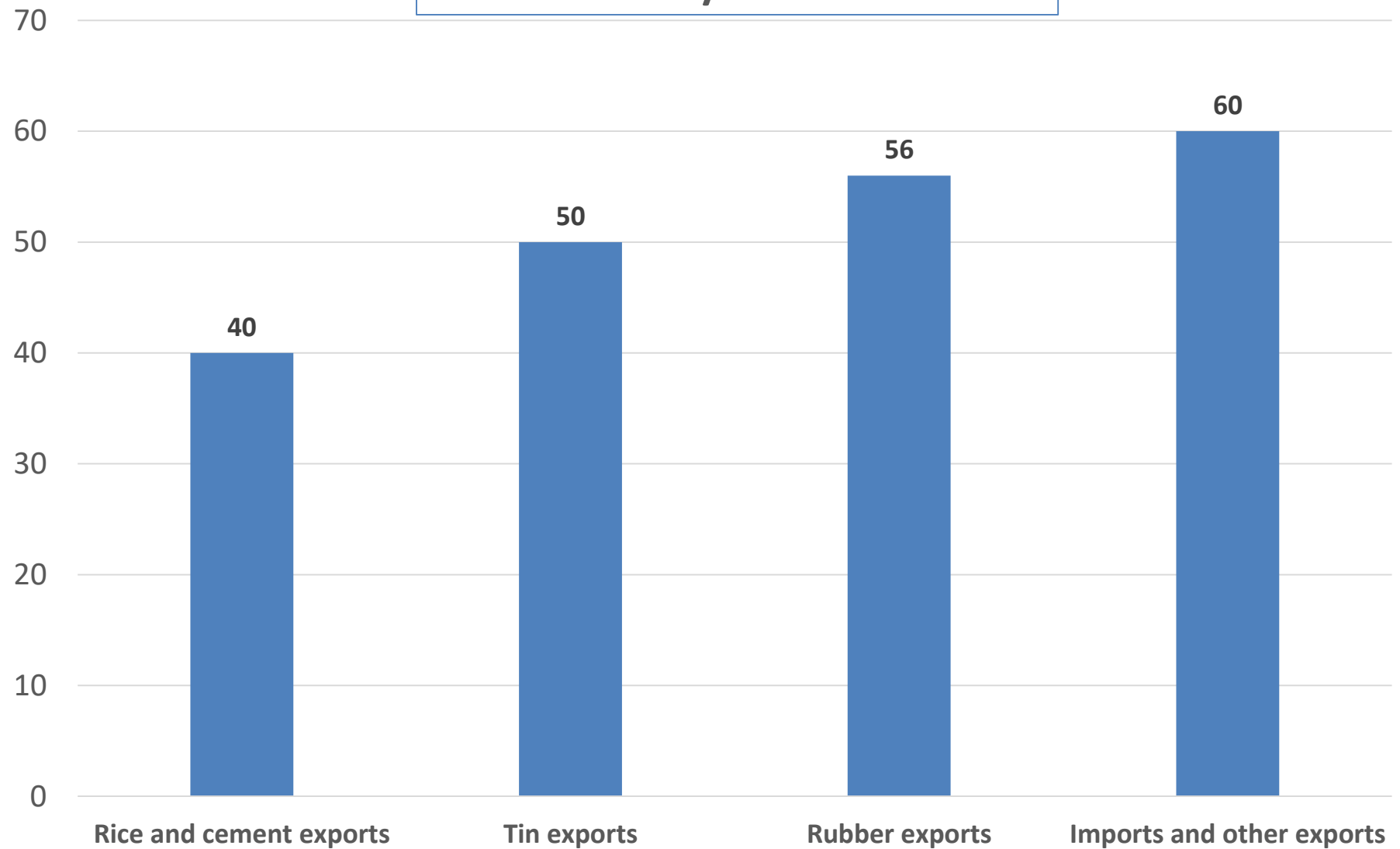
Zimbabwe's hyperinflation

- The economy is in shambles, and a drought has left 4m people hungry. Anti-government protests are continuing despite brutal police crackdowns.
- Citizens are already wary about “bond notes”, introduced by the central bank to ease cash shortages.
- While not officially a currency, they look an awful lot like the old Zimbabwe dollar, abandoned in **2009** after inflation hit 500,000,000,000%.
- Since then the country has relied mainly on American dollars: ***Dollarization*** is used to curb hyperinflation.

A multiple exchange rate system

- The external value of the baht was unstable before 1955.
- The shortage of foreign exchanges led the government to adopt a multiple exchange rate system, in which exporters and importers of commodities were subjected to different exchange rates.
- **Source:** Yang, Shu-Chin (1957) A multiple exchange rate system: An appraisal of Thailand experience 1946-1955, Madison: The University of Wisconsin Press

Multiple Exchange Rates: 1955 Baht/ Pound



Price stability is the key

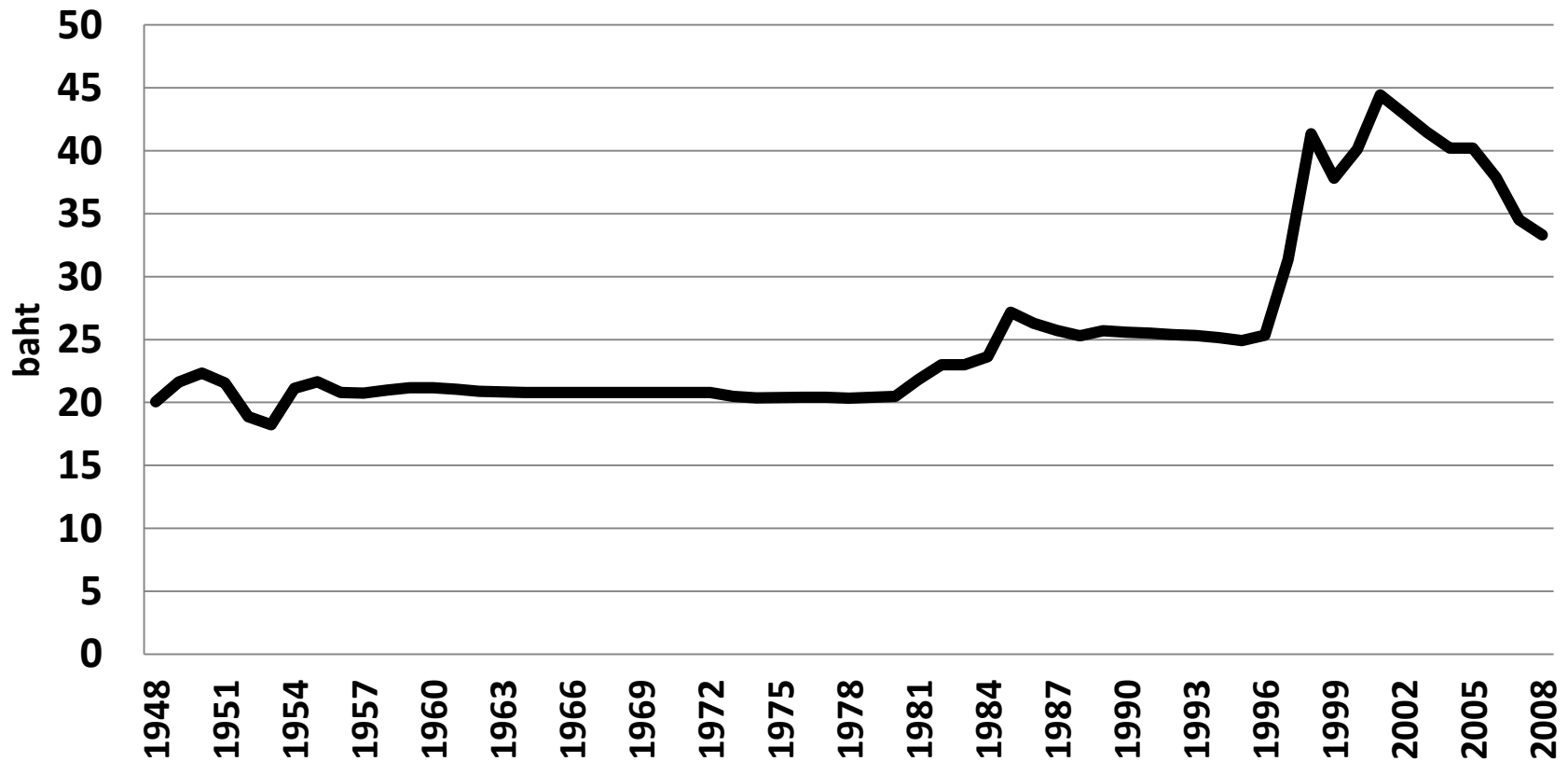
- The multiple exchange rate system helped to restore price stability, as inflationary expectations were subdued.
- Price stability is the key to build confidence in the value of baht.
- Inflationary expectations can be controlled with fiscal disciplinary: no printing money to finance budget deficit (selling government bonds to the central bank).

Currency speculation no more

- As a result of the unification of multiple exchange rates into a single and stable exchange rate in 1955, the baht exchange rate remained stable throughout the period 1955-1960.
- The speculation of the foreign exchanges and the **black market** was eliminated after the exchange rate unification.
- What do people speculate in the foreign exchange market?
- The stable financial environment provided a necessary condition for a ***stable demand for money*** in response to expanding economic activities.

The baht-dollar exchange rate

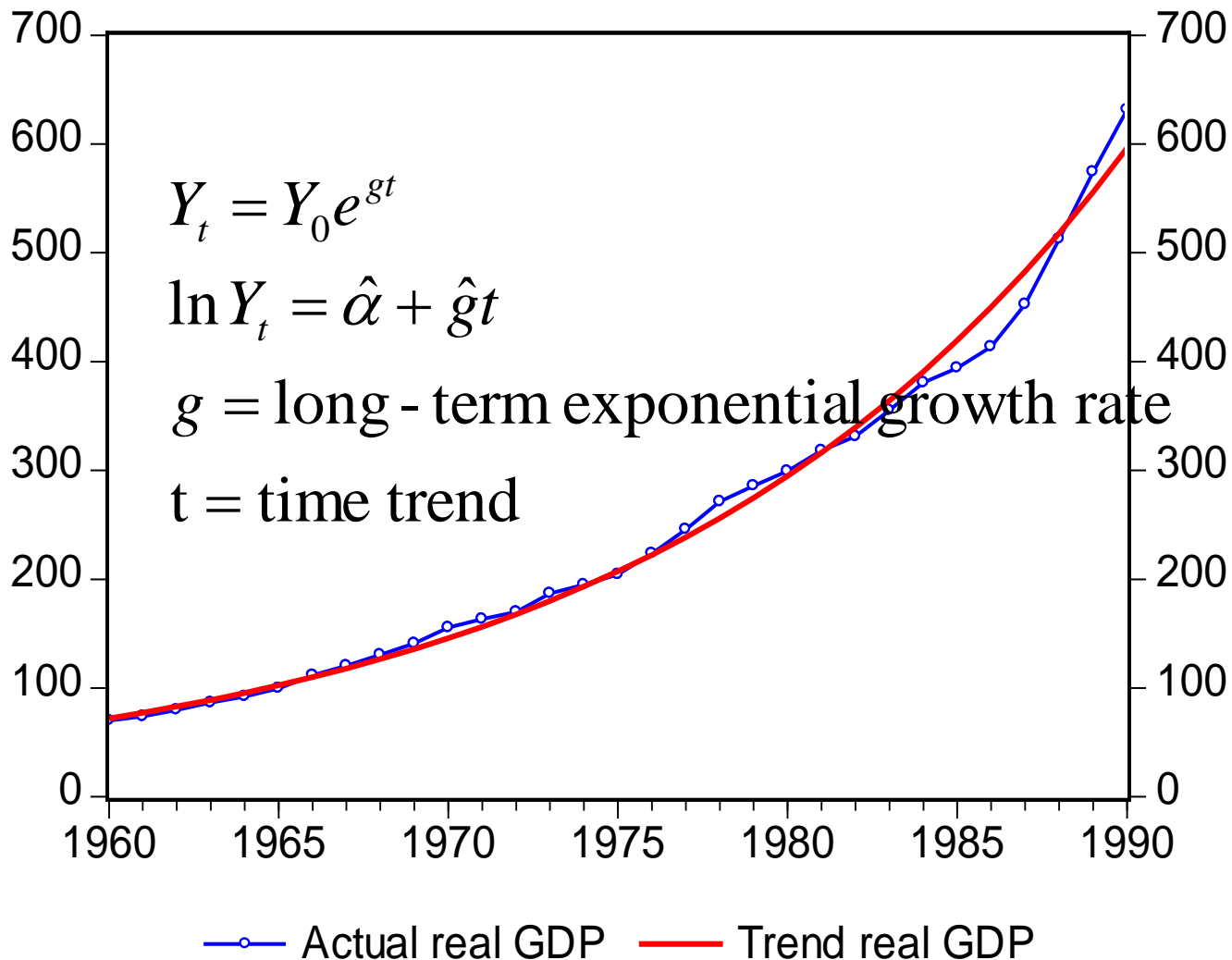
Nominal price of the dollar



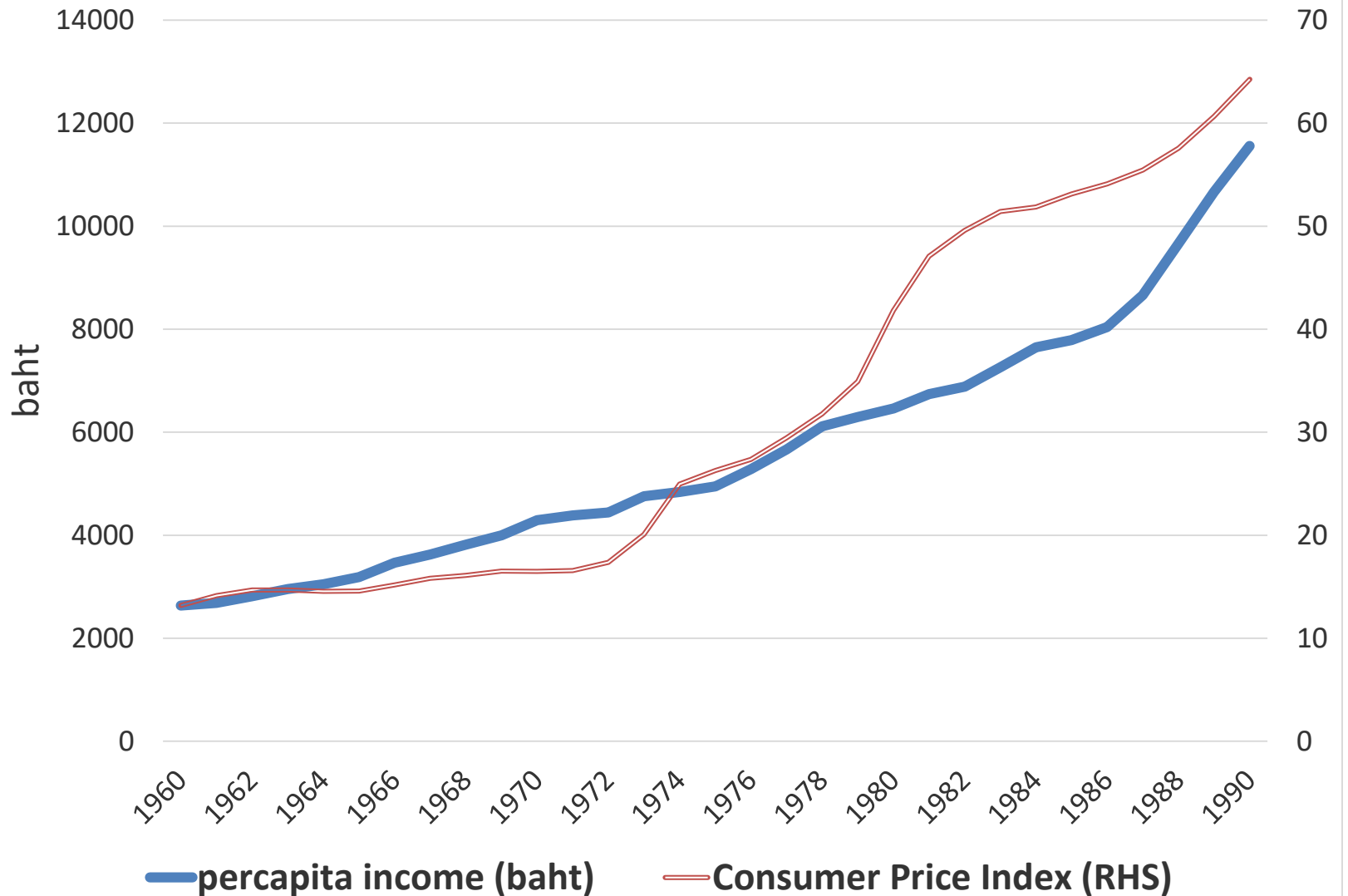
Pre-conditions for taking off

- Price stability
- Exchange rate stability
- Stable macroeconomic environment
- Infrastructure development: dams, airport, railways and highways—the big push hypothesis

Thailand's long-term growth path: g = exponential growth rate (7.2%)



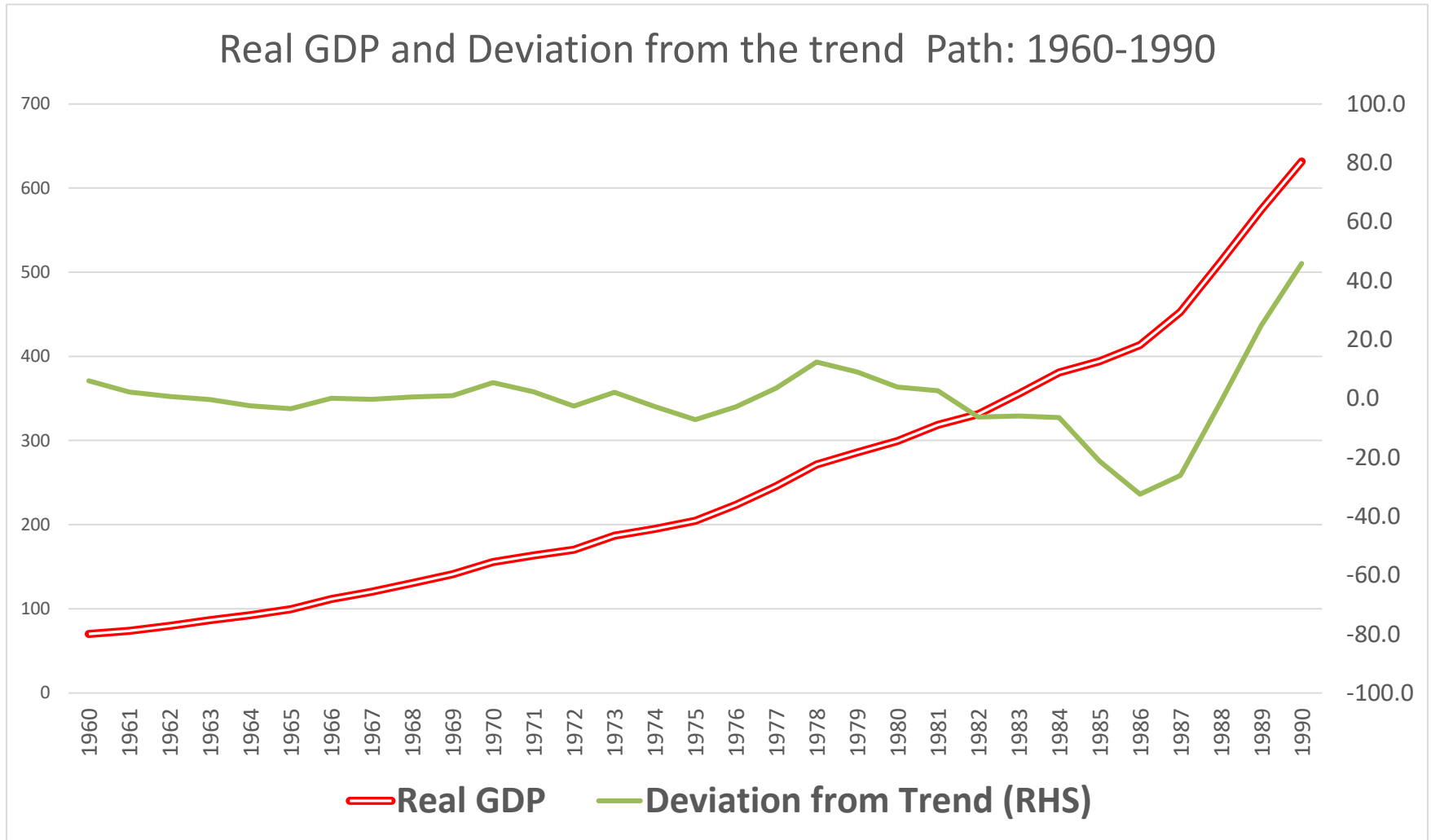
Per capita Income and price levels



Deviations from the trend growth path

- From 1961 to 1990, output increased at the trend growth path of 7 %. (Remember Rule 72)
- There were some episodes that actual GDP was above the trend, as new engine of growth had emerged.
- But there were also some interruptions:
- Growth rate dropped below the trend growth path: the two oil price shocks during the period 1973-1974 and the period 1979-1980.

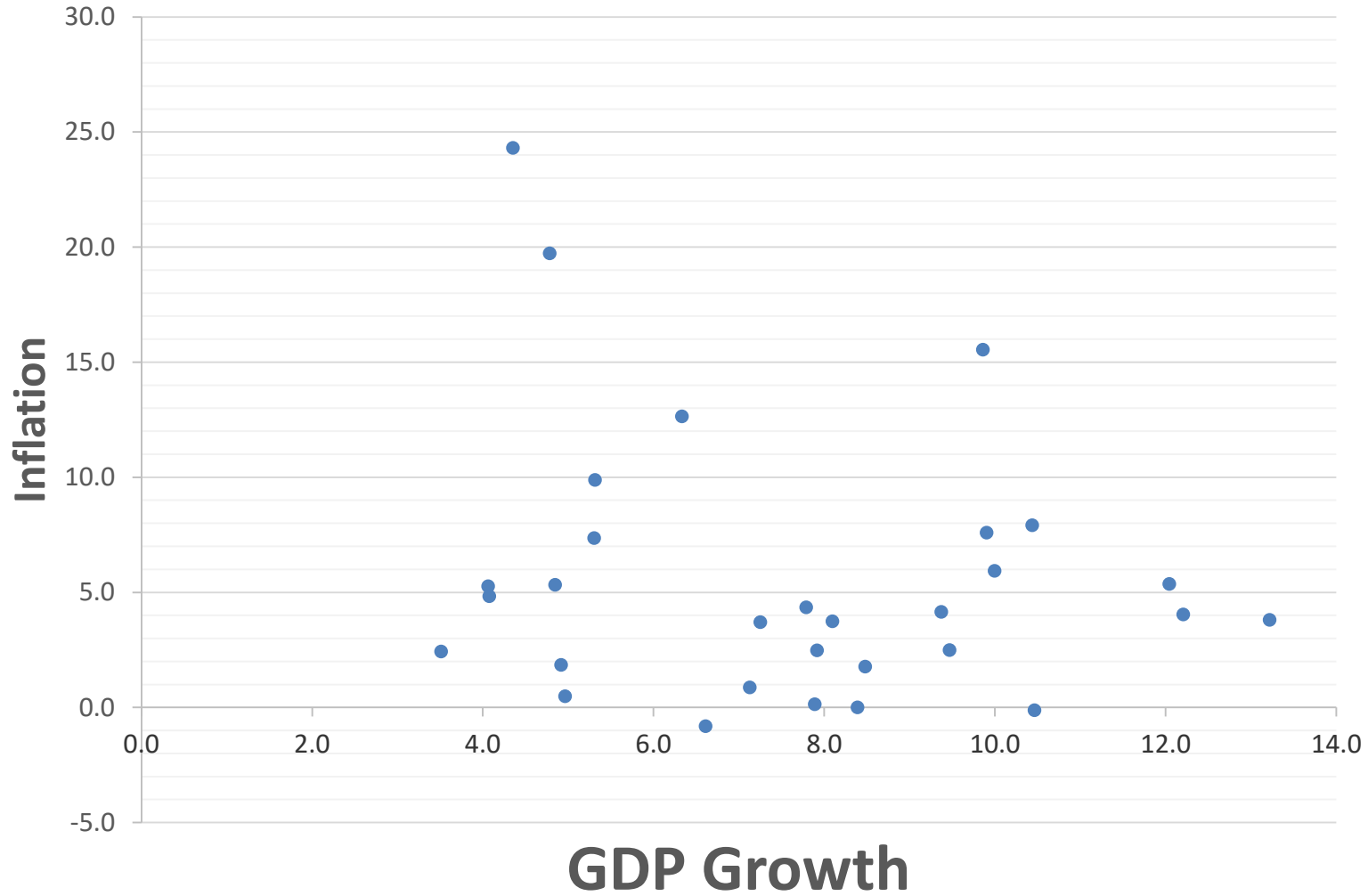
A stable growth path: 1960-1984



Back to price stability

- After the oil shocks (the cost-pushed inflation), the inflation rate was subsided within a year.
- External shocks did not cause runaway inflation as monetary growth rate was moderate.
- Aside from the four years of double-digit inflation, faster growth was achieved without inflation acceleration.

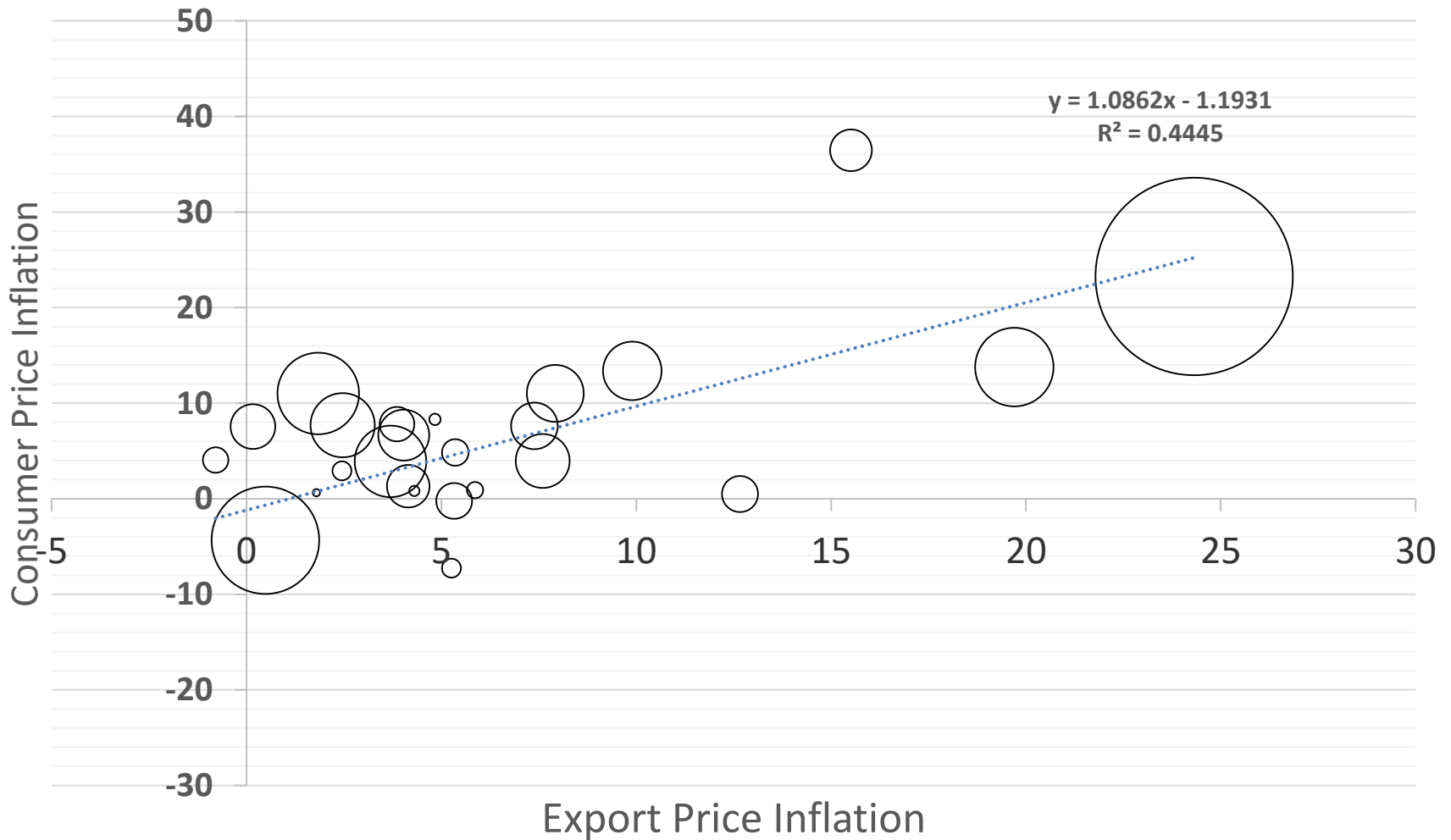
Zero Inflation-Growth Tradeoff?



Domestic inflation and external price pressures

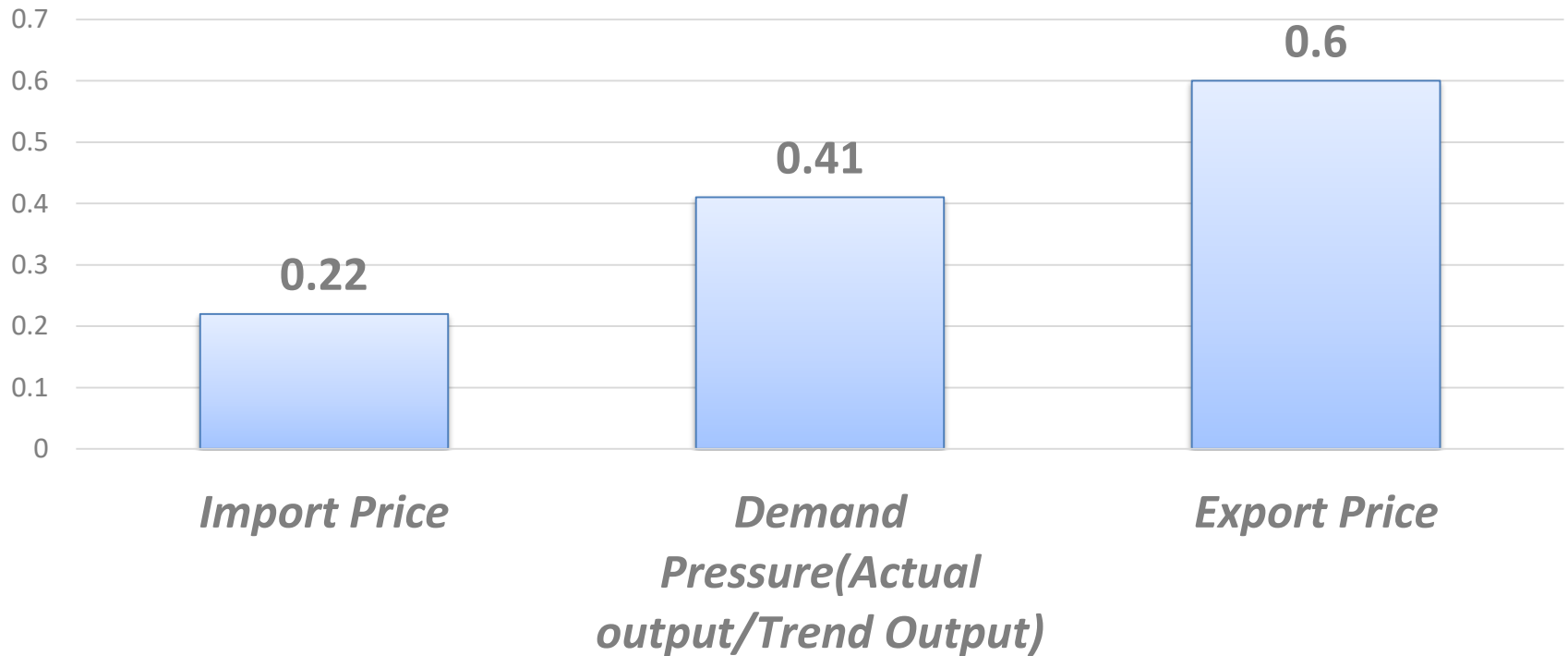
Bubble size represents imported inflation (% Pm)

1961-2000



Inflationary Pressure

Consumer Price Elasticities 1961-1990



A sample of midterm questions

- Identity the common motivation behind some details in the Bowring treaty and the multiple exchange rates adopted during WWII.

A simple growth accounting identity: what are growth drivers?

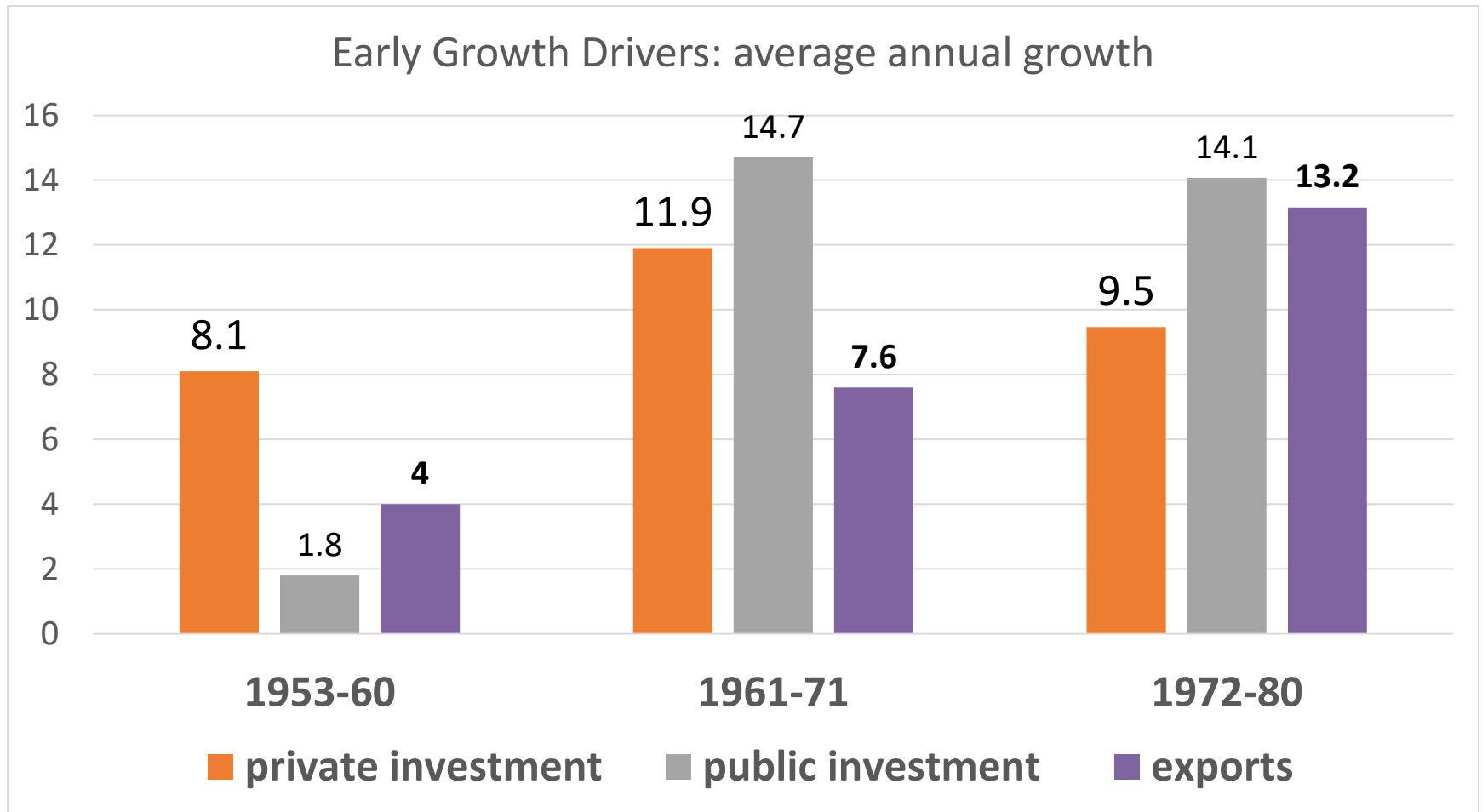
$$\Delta Y = \Delta C + \Delta I + \Delta G + \Delta X - \Delta M$$

$$\frac{\Delta Y}{Y} = \frac{\Delta C}{Y} + \frac{\Delta I}{Y} + \frac{\Delta G}{Y} + \frac{\Delta X}{Y} - \frac{\Delta M}{Y}$$

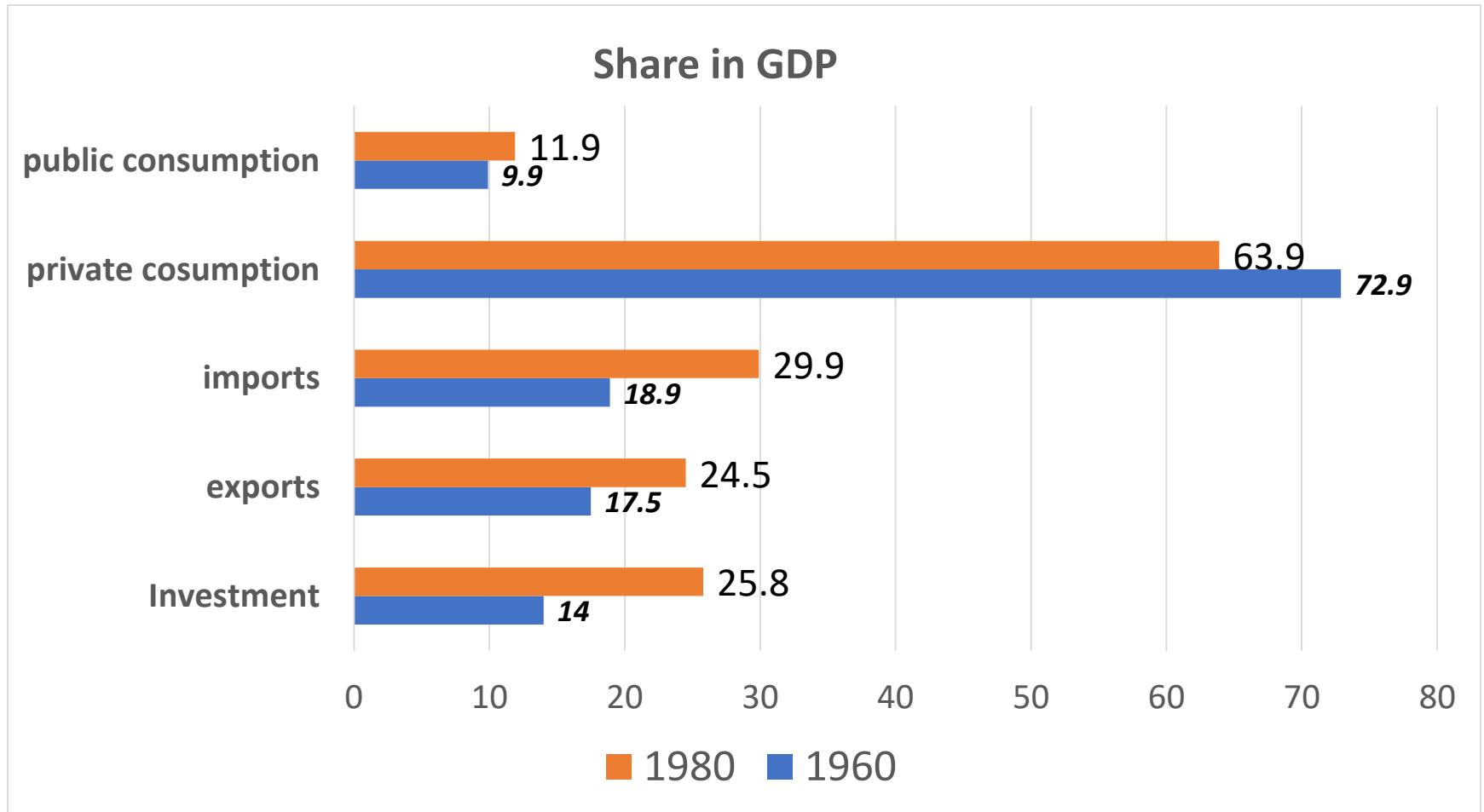
$$g = \frac{\Delta C}{C} (C/Y) + \frac{\Delta I}{I} (I/Y) + \frac{\Delta G}{G} (G/Y) + \frac{\Delta X}{X} (X/Y) - \frac{\Delta M}{M} (M/Y)$$

$$g = \dot{C}(C/Y) + \dot{I}(I/Y) + \dot{G}(G/Y) + \dot{X}(X/Y) - \dot{M}(M/Y)$$

Growth of Demand Components



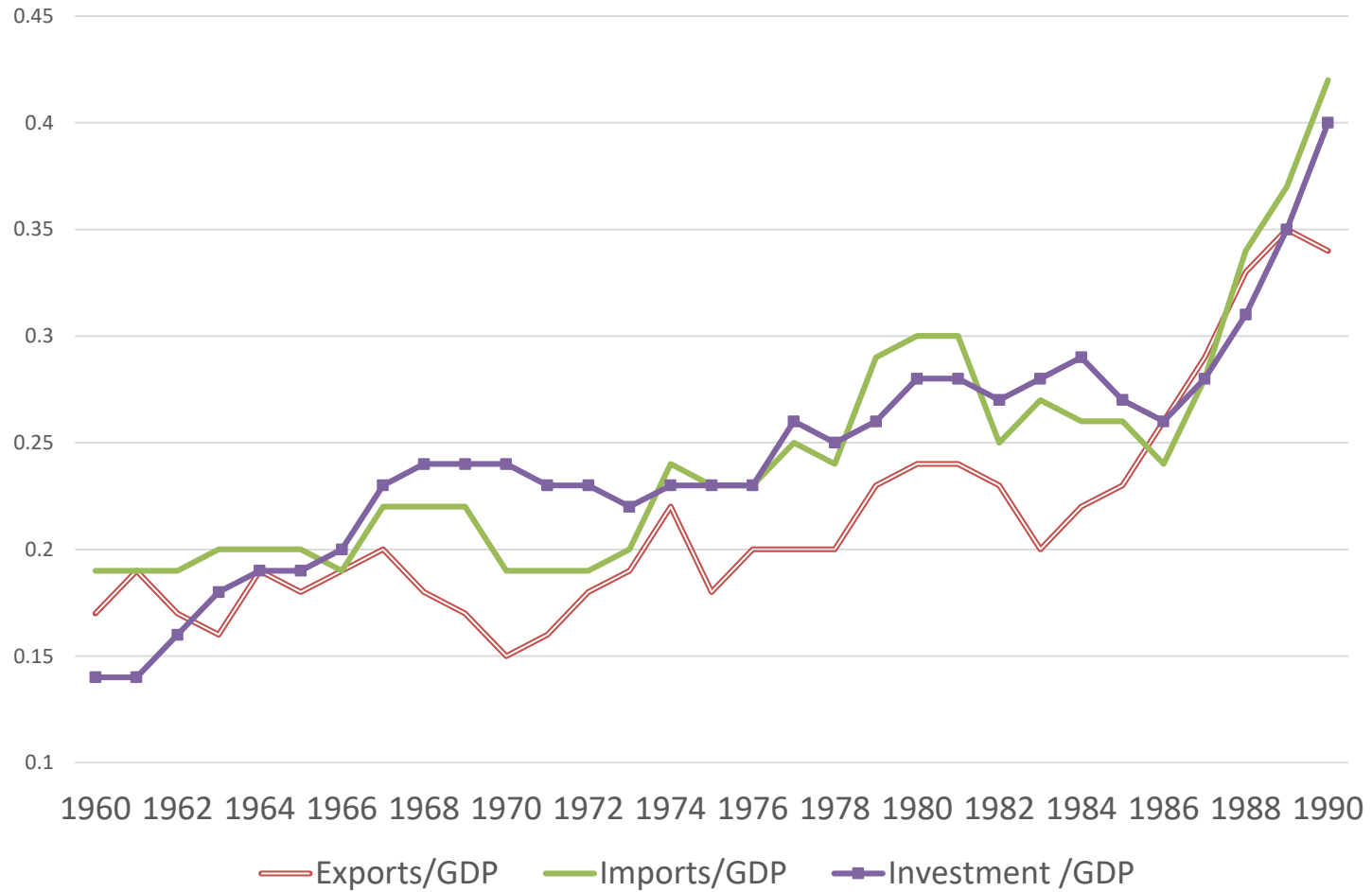
The weights in growth equation



Growth was driven by investment

- The share of investment in GDP increased rapidly to 25 % in 1980.
- Investment and imports were highly correlated.
- A large part of imports was capital goods, which contributed to productivity improvement in the manufacturing sector, giving rise to competitiveness and enhanced export capacity.
- But imports also rose sharply during the oil shocks.

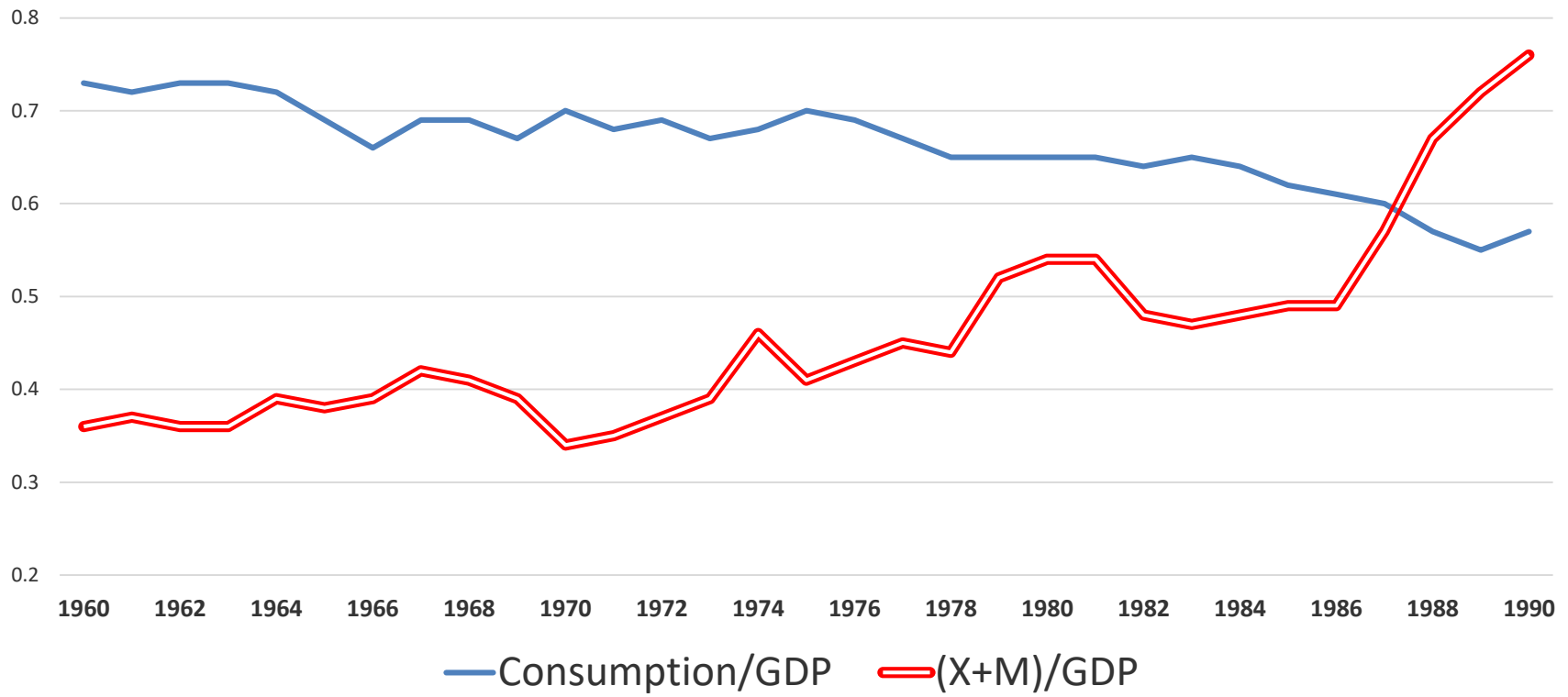
Growth Drivers



Pro-trade Biased Growth

The sum of exports (X) and Imports (M) indicates international trade activities

Trade Openness and Domestic Consumption



Exports and economic growth

- The share of foreign trade (the sum of values of imports and exports) to GDP increased from 35% in 1960 to 75 % in 1990.
- Trade openness was related to output growth (Remember Rodrik's deep determinants).
- ***How did exports contribute to economic growth?***

Bela Balassa: Export-led Growth Hypothesis

The rationale for the above hypothesis is that these export-oriented policies provide five significant merits:

- (1) Better resource allocation according to comparative advantage (recall the impact of the Bowring Treaty),
- (2) Higher capacity utilization due to larger market (high level of underemployment in farming sector),

Exports-led growth strategy

- (3) Permission of the exploitation of economies of scale (think about Singapore),
- (4) Technological improvements in response to competition abroad (think about Samsung's Note 9 Galaxy smartphone)
- (5) Increase in employment in labor-surplus countries (Myanmar and China in the 1980s).

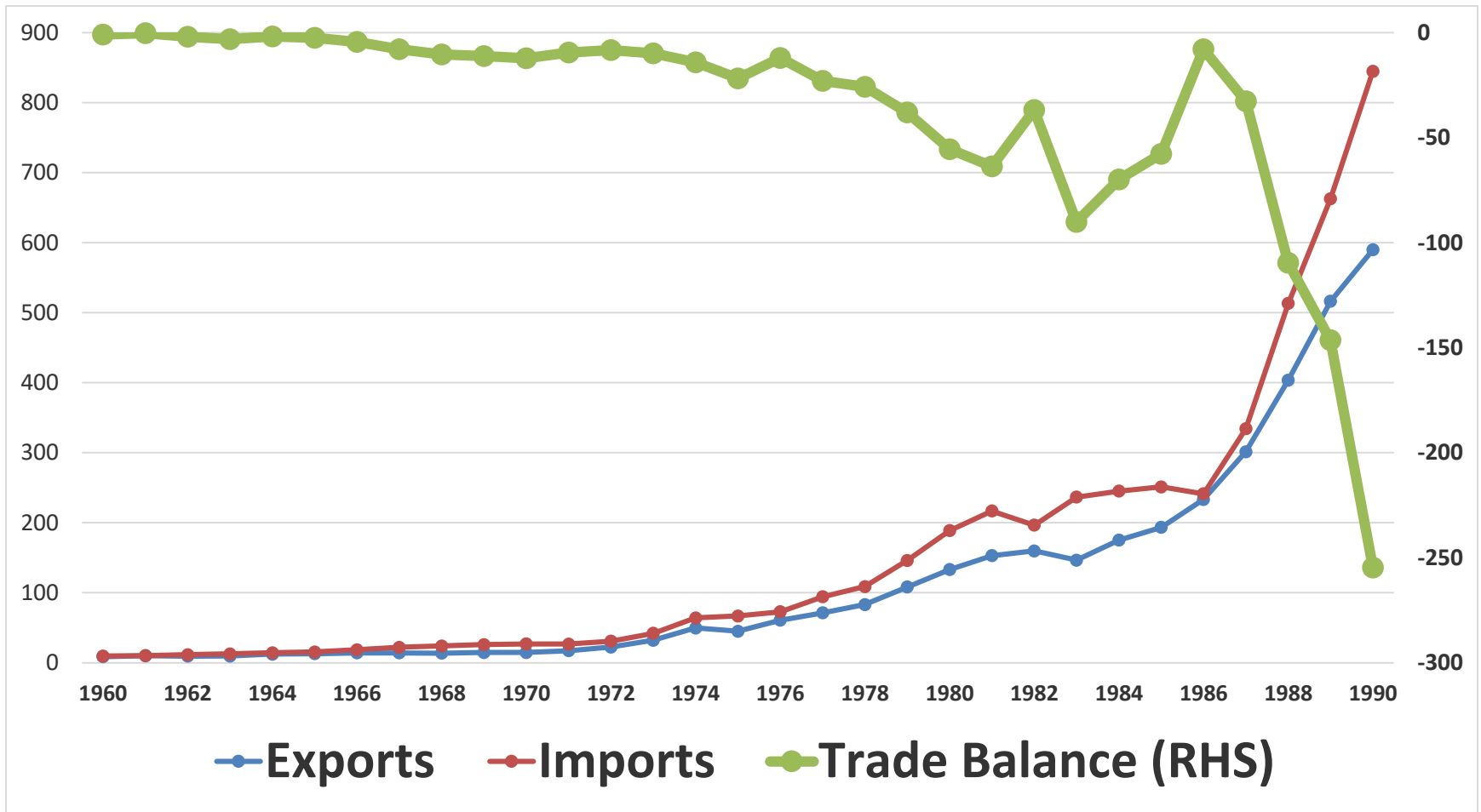
The virtue of a fixed exchange rate regime

- In the first ten years of the implementation of the economic development plan, the trade deficit was still insignificant.
- International trade expanded as the fixed exchange rate provided favorable environment with no foreign exchange risk.
- When the trade deficit grew larger after 1978, the need for exchange rate adjustment became apparent.

Living beyond our means

- Exchange rate adjustments became more frequent as the trade balance was widening.
- By 1990, the amount of trade deficit deteriorated further as the baht appreciated, although the fiscal budget was in surplus.
- Thus the widening trade deficit was mainly due to the investment-saving gap—not public deficit. From the equilibrium condition:
- $M-X = (I-S) + (G-T)$ ***Twin deficits***

Deteriorating Trade Balance



Blame the dollar strength

The baht was dragged by the dollar against the yen

- The number of months of covered imports international reserves declined steadily before the mid-1981 and the late 1984 devaluations.
- The appreciation of the US dollar against other currencies implied that the baht was strengthened against other currencies, resulting in the loss of competitiveness in non-US markets.

$$e = \frac{B}{\$} = e^* = 23 \text{ baht}$$

$$e = \frac{B/Y}{\$/Y} = e^*$$

As the dollar appreciates against the yen ($\$/Y$) falls
The baht must also appreciate against the yen (B/Y) falls by the
Same percentage to maintain the fixed e^* level.
Hence Thailand's exports lost its price competitiveness in Japanese
markets

Devaluations of the baht

- In May 1981, the baht was devalued against the US dollar by 1.1 %, which was followed by another devaluation of 8.7 % in July 1981.
- Another massive devaluation was undertaken in November 1984 by 14.9 %, which followed by another 1.9 % in December 1985.
- These devaluations were the policy response to the current account deficit and the loss of competitiveness caused by the baht appreciation against other currencies.

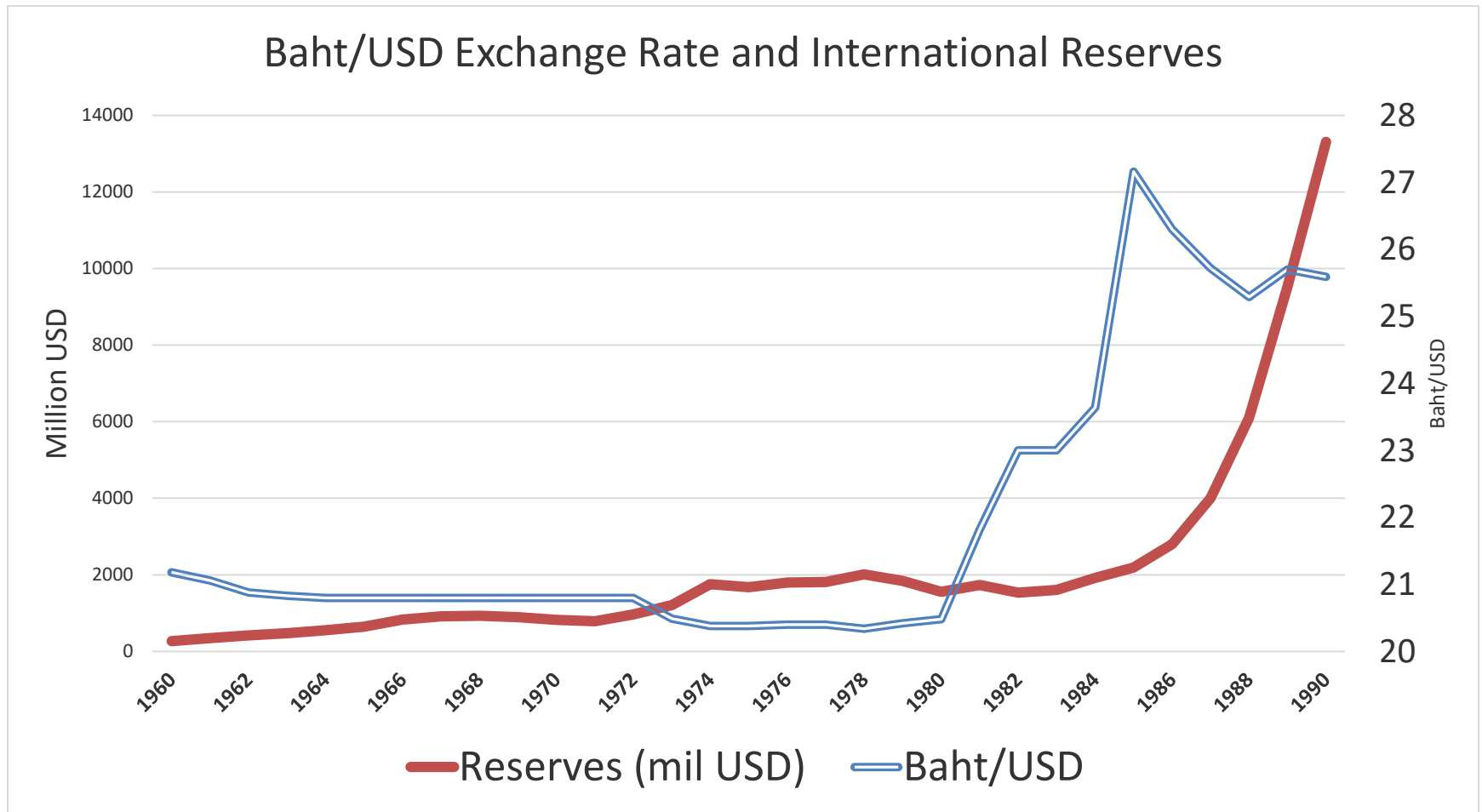
Devaluation as a last resort

- These devaluations were undertaken as all other measures failed to correct the current account deficit.
- A ceiling was imposed on the issuance of the letter of credit in 1983 and the **18% ceiling** on bank lending growth was stipulated to avoid adverse political consequences of large devaluations.
- By using indirect measures, the Bank of Thailand did not deal with the root of the problem, which was the unrealistic exchange rate.

Devaluation: A success

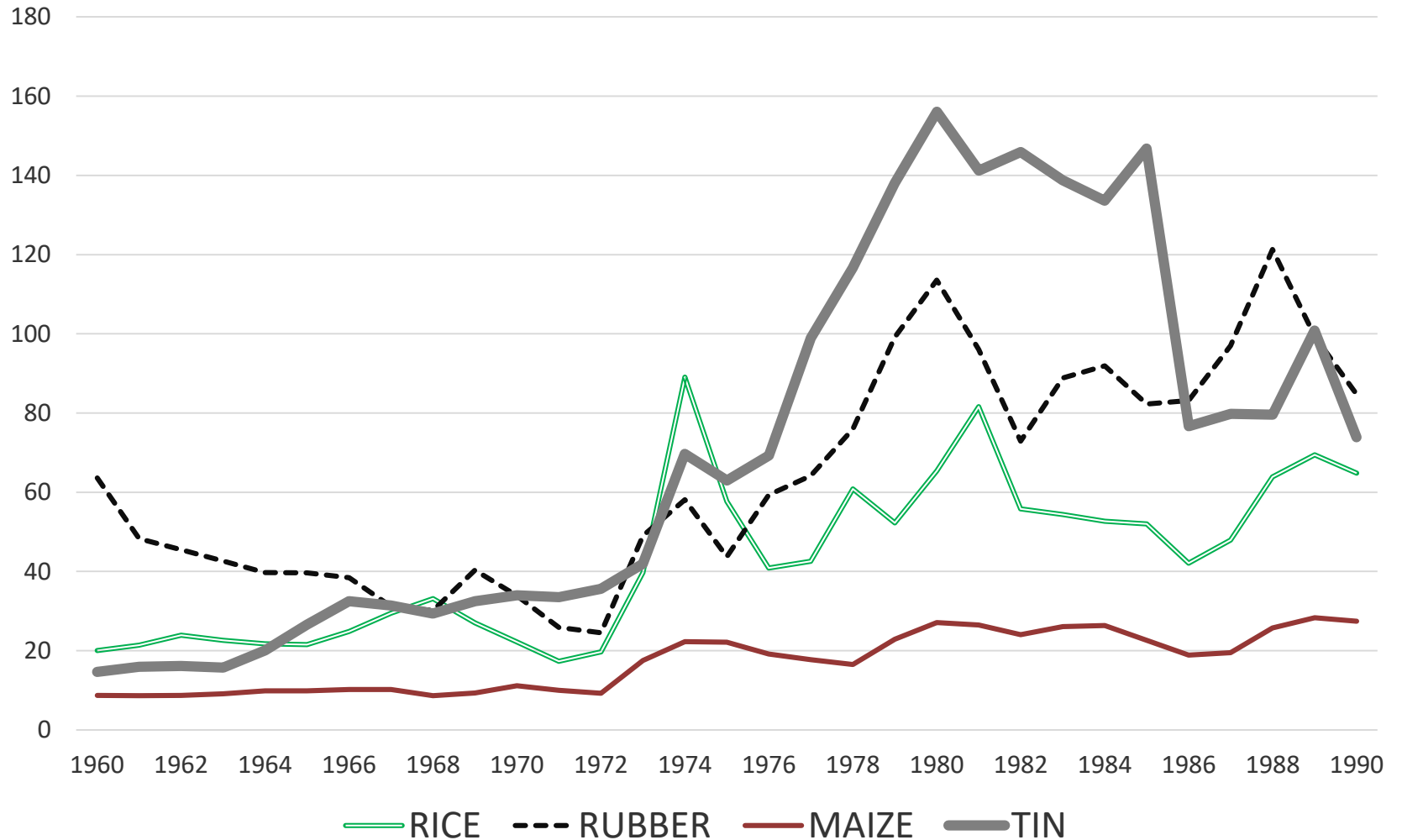
- Devaluations were quite successful as the level of international reserves increased sharply from the level of 2 billion in 1985 to more than 12 billion USD in 1990.
- The baskets of currency exchange rate system of Thailand continued providing the stability of the bath-dollar exchange rate, as the weight of the US dollar in the basket was more than two-thirds and had been rising over time.
- This practice led to the problem of unsustainable current account in the 1990s.

After two major devaluations

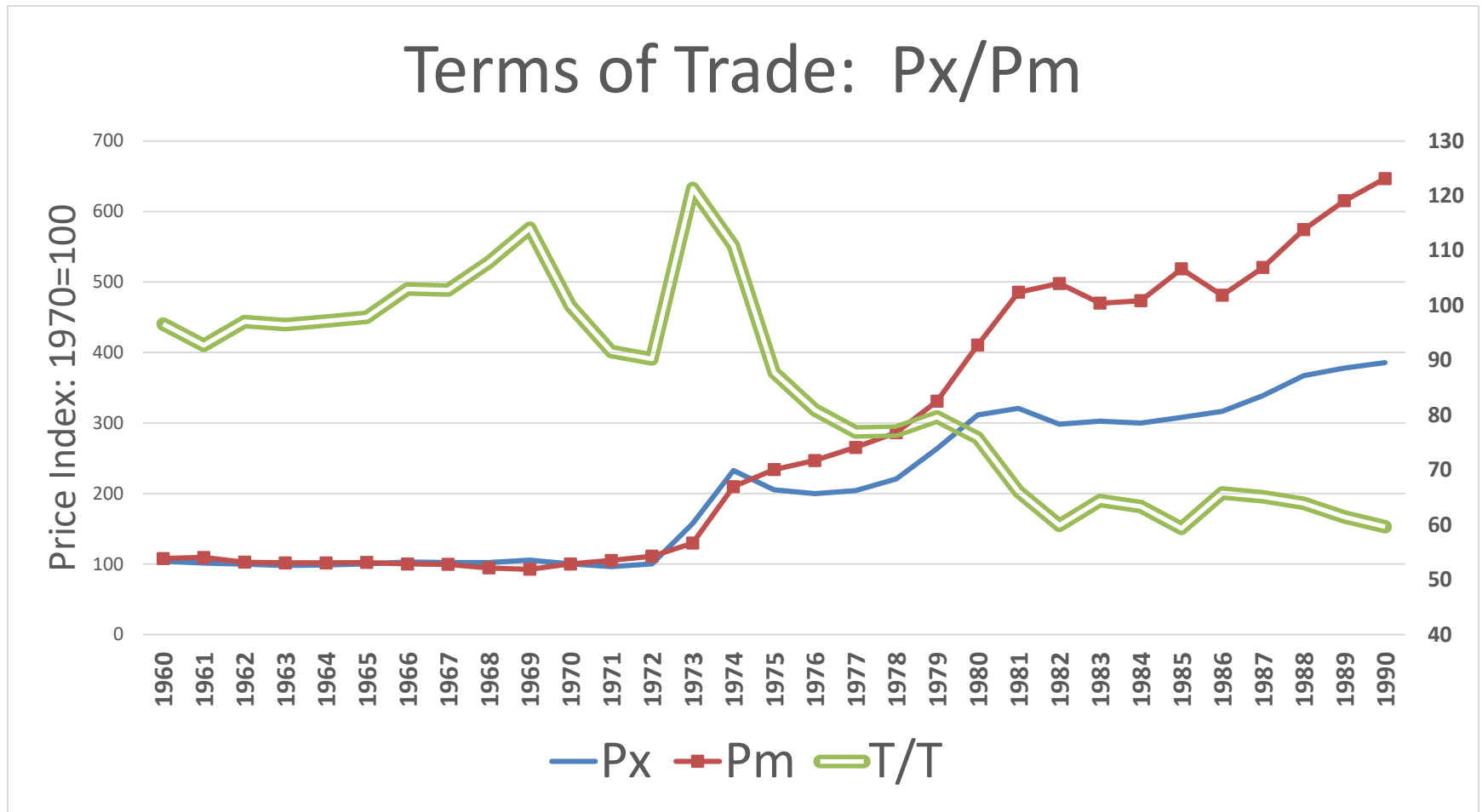


Commodity Prices: Booms and Busts

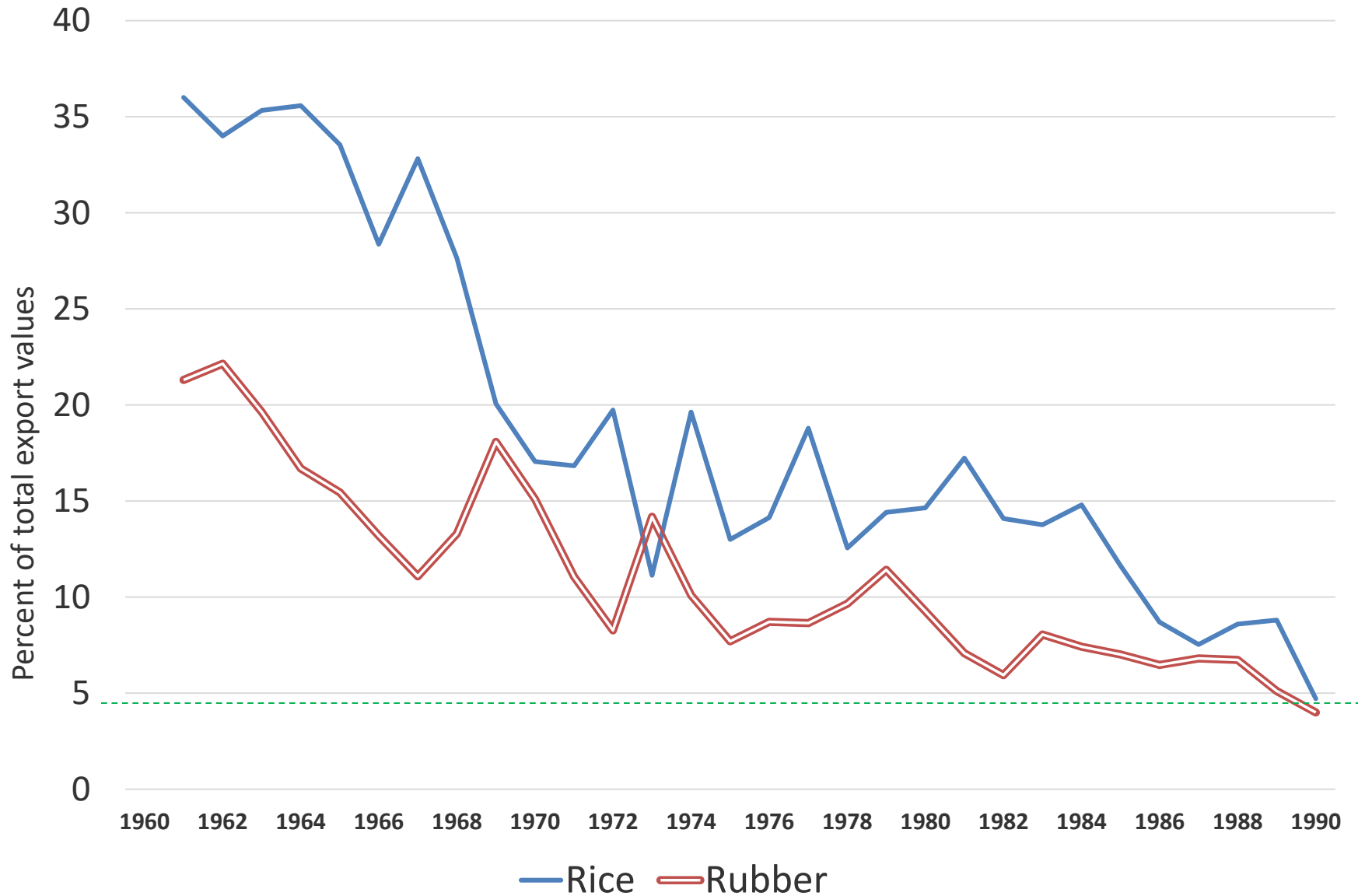
Thailand's primary commodity exports



Prebisch-Singer Hypothesis: Declining terms of trade after 1973



Declining importance of primary commodity exports



Less focused on agriculture, more on manufacturing

- During this period, the importance of agricultural exports had declined, while manufacturing exports became more dominant.
- The shift in the export structure ameliorated the adverse effects of declining terms of trade of primary commodities.

Conservative Fiscal Policy

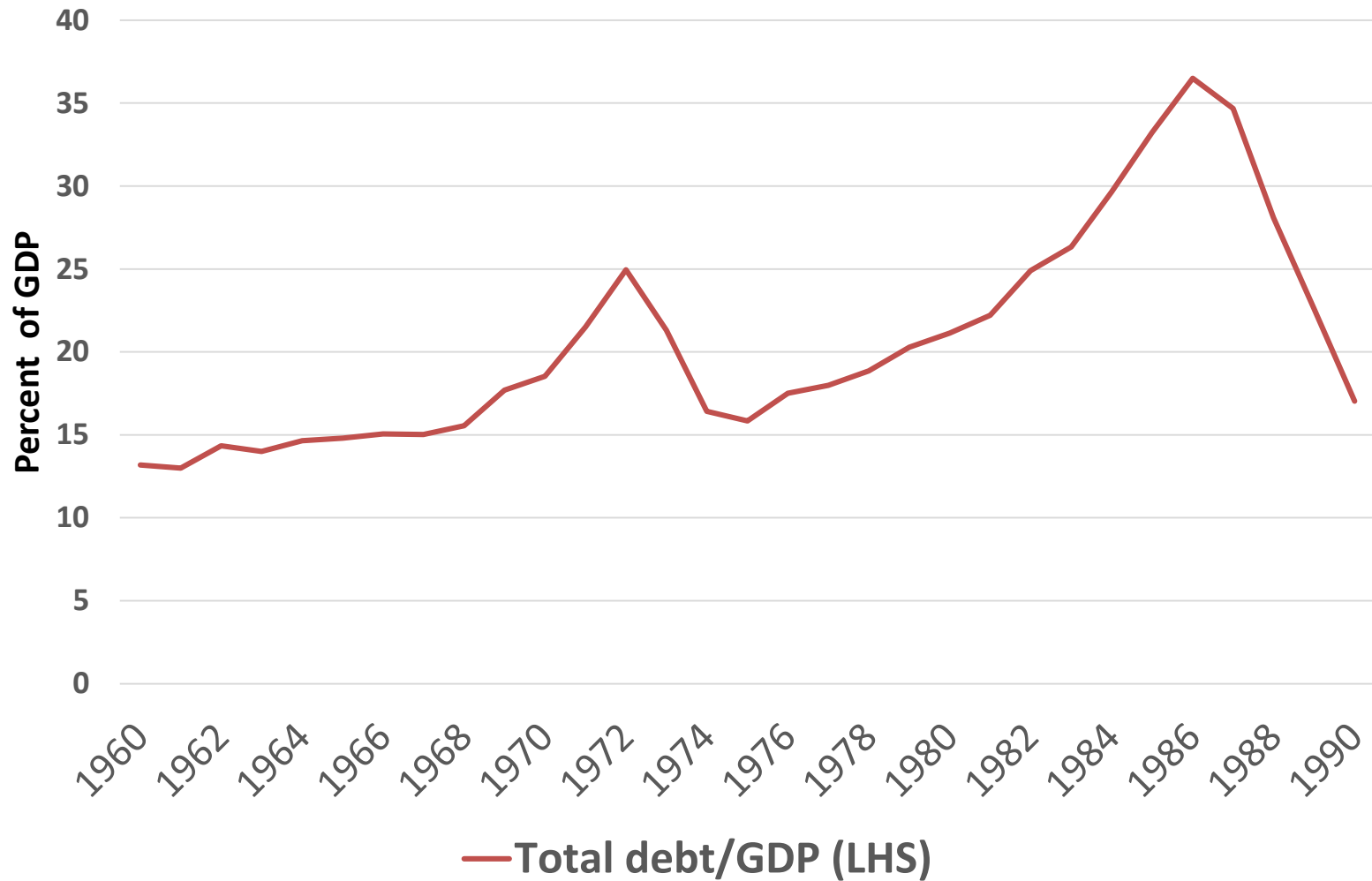
- The government adhered to balanced budget principle during the regime of General Thamon administration (1964-1974).
- The size of the budget deficit was larger in the early 1970s but the deficit turned into surplus in 1974, because of rising trade tax revenues.

Manageable public debt

- As the public debt increased gradually in the early 1960s, the public spending was curtailed to maintain manageable level of public debt.
- The share of public debt started climbing from 15 % in 1975 to above 35% of GDP in 1986.
- In 1987 the budget deficit was reduced as financial discipline was strictly obeyed.

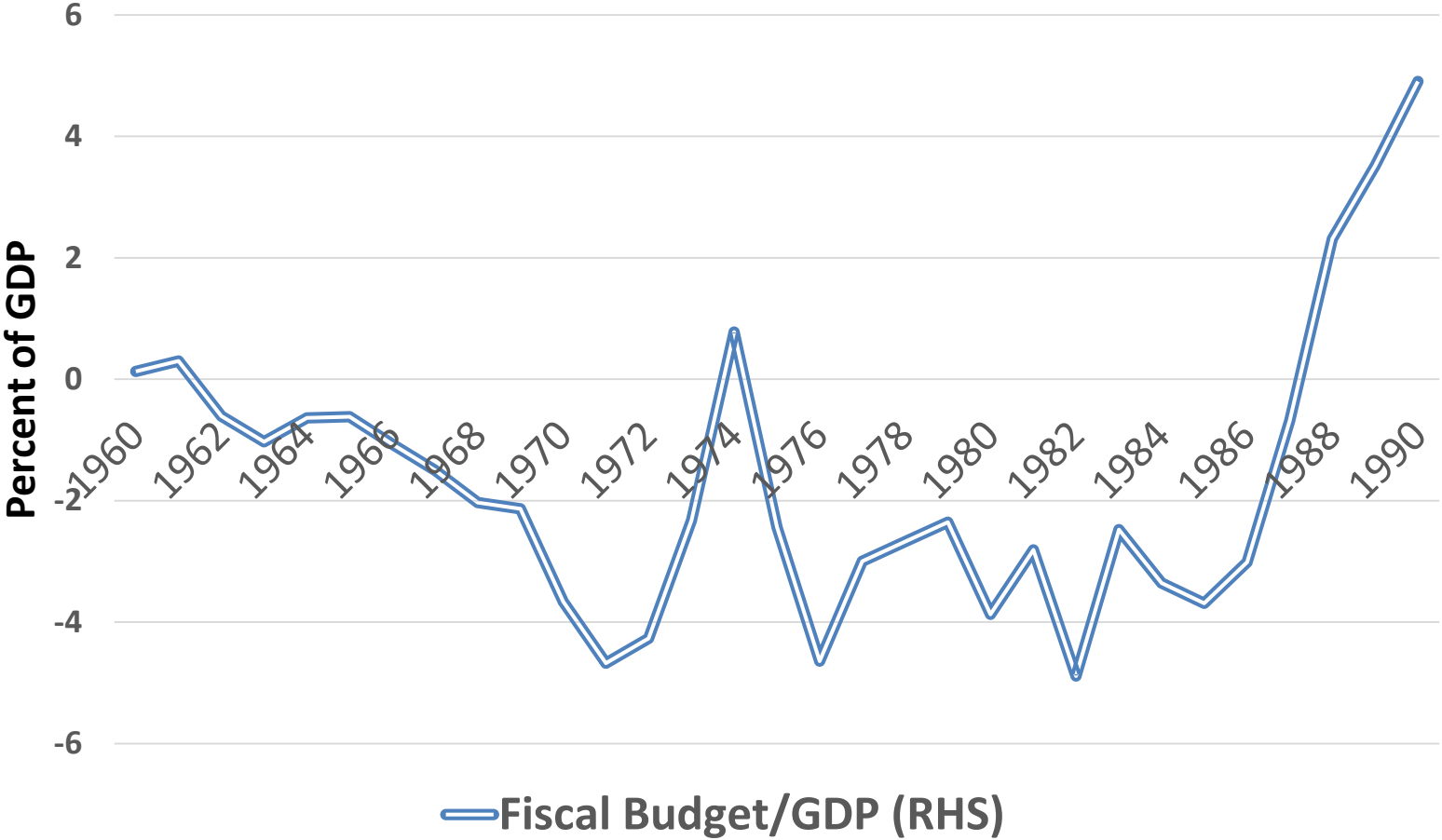
Sustainability of public debt: 1960-1990

Source: Bank of Thailand



Fiscal Budget Sustainability: 1960-1990

Source: Bank of Thailand

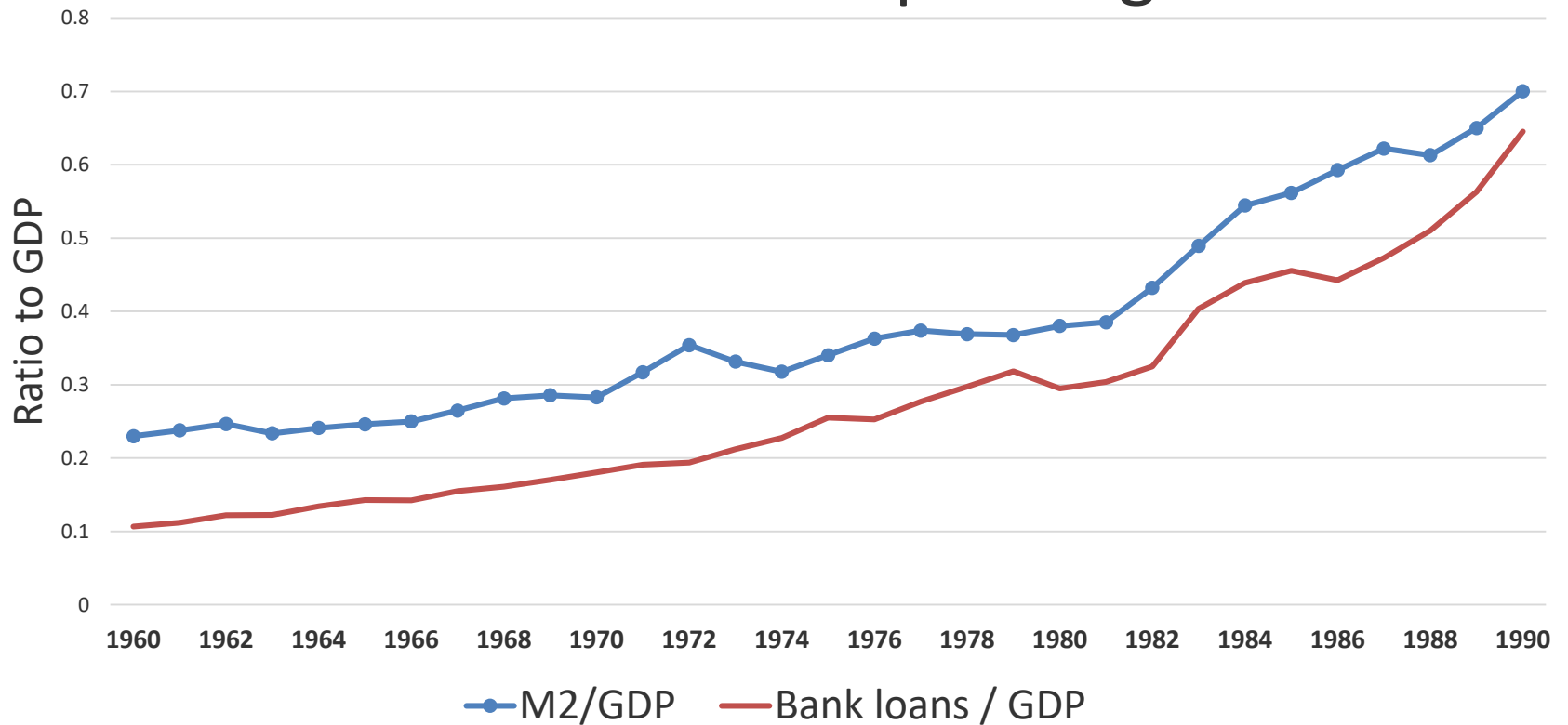


How to curb budget deficit: Fiscal Discipline

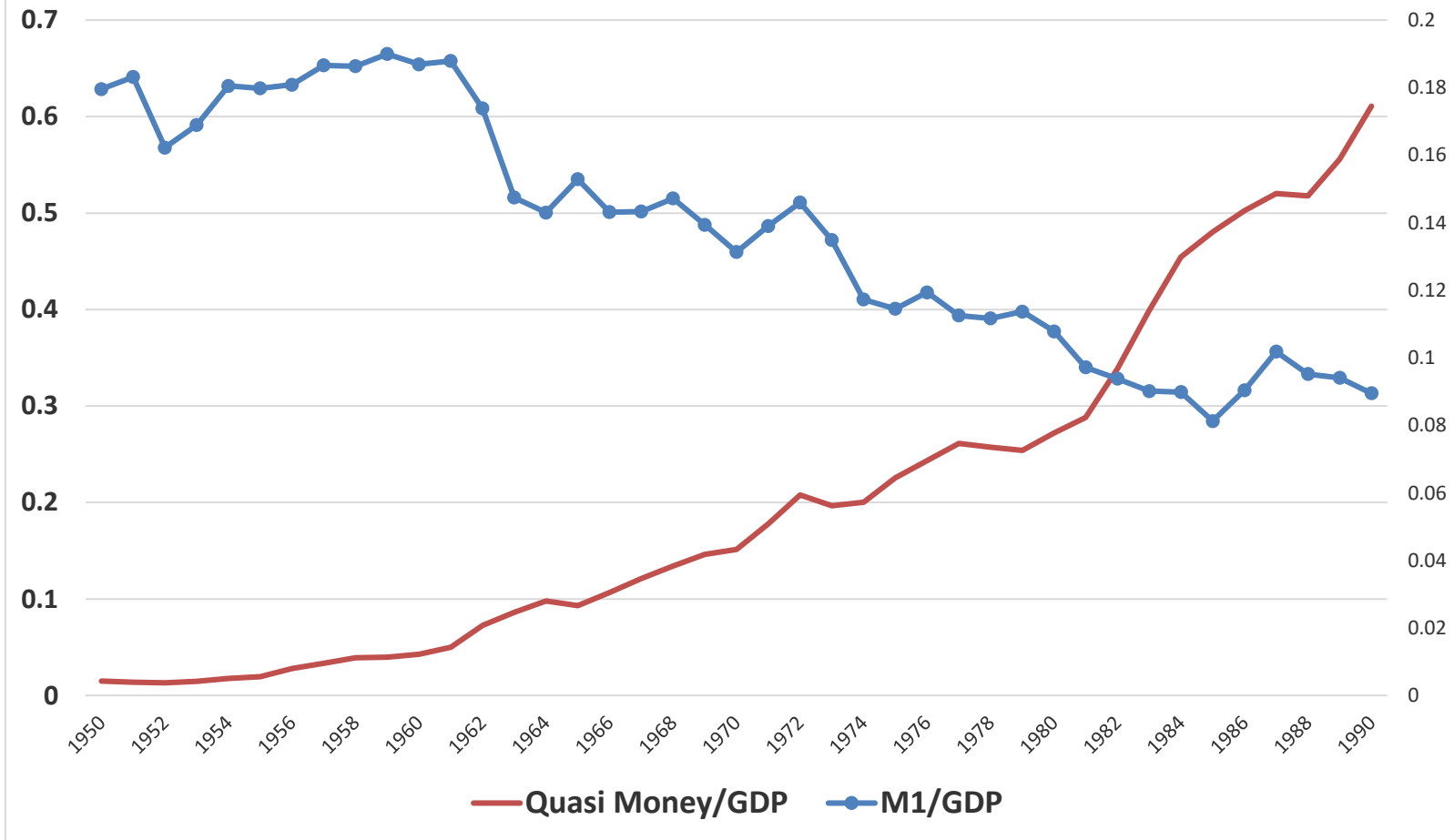
- The ability to cut down the budget deficit led to a sharp decline in the debt to GDP ratio, as a result of the turnaround in the fiscal position.
- By 1989, the steady growth of the Thai economy generated tax revenues and the country experienced substantial surplus budget, enabling the government to undertake ***trade liberalization*** program through tariff reduction.

An index of economic development

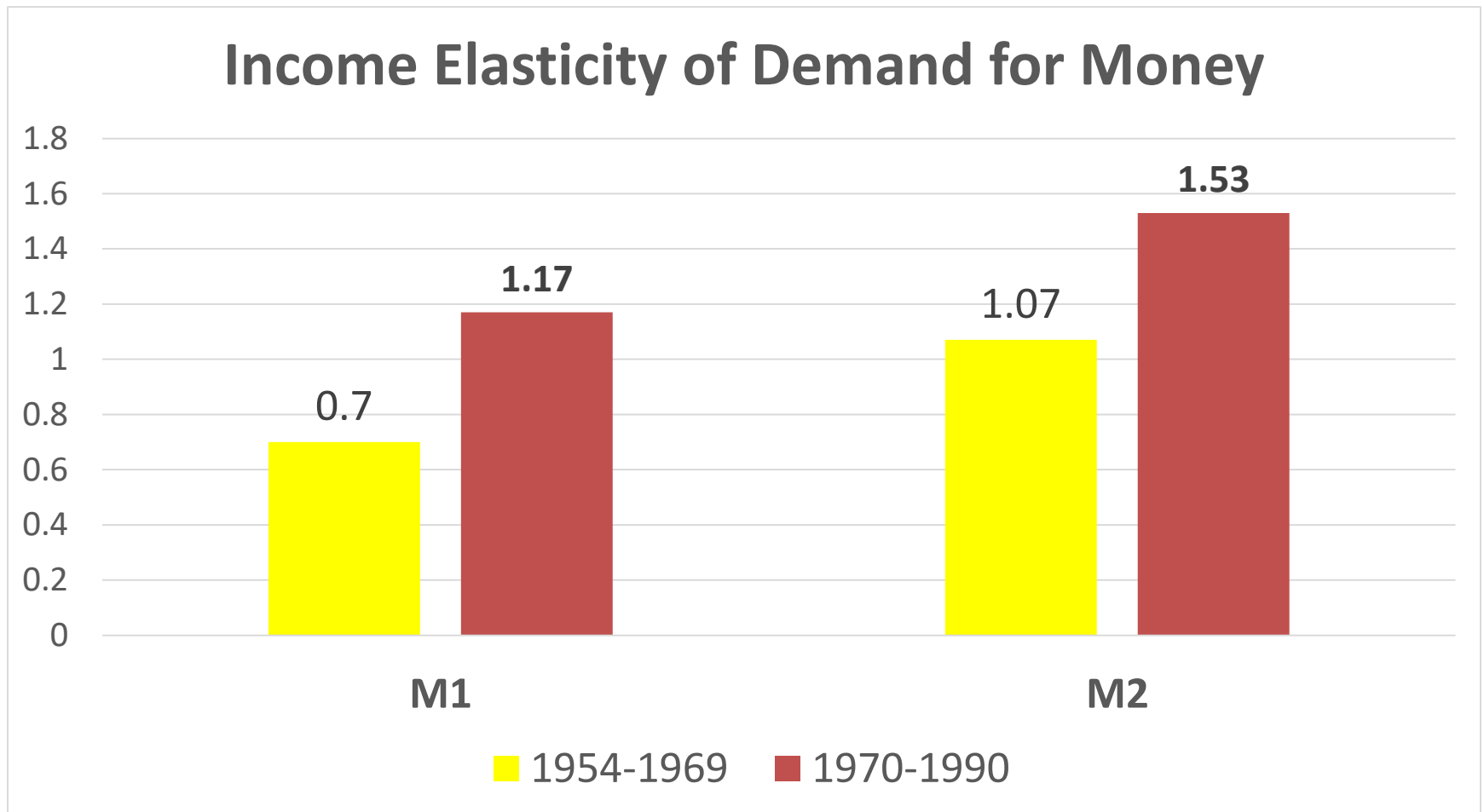
Financial Deepening



Financial Wealth Accumulation 1950-1990



Velocity declined as household income increased



Shallow finance vs. deep finance

- Bank loans and M2 increased faster than GDP, exhibiting a steady increase in the degree of financial deepening.
- The availability of bank credit permitted rapid capital accumulation.
- The broad money supply moved together in line with bank loan in the long-run (cointegrating relationship)
- Banks' main sources of loanable funds were time and saving deposits.
- Key word: Financial deepening

Relaxation of domestic resource constraint

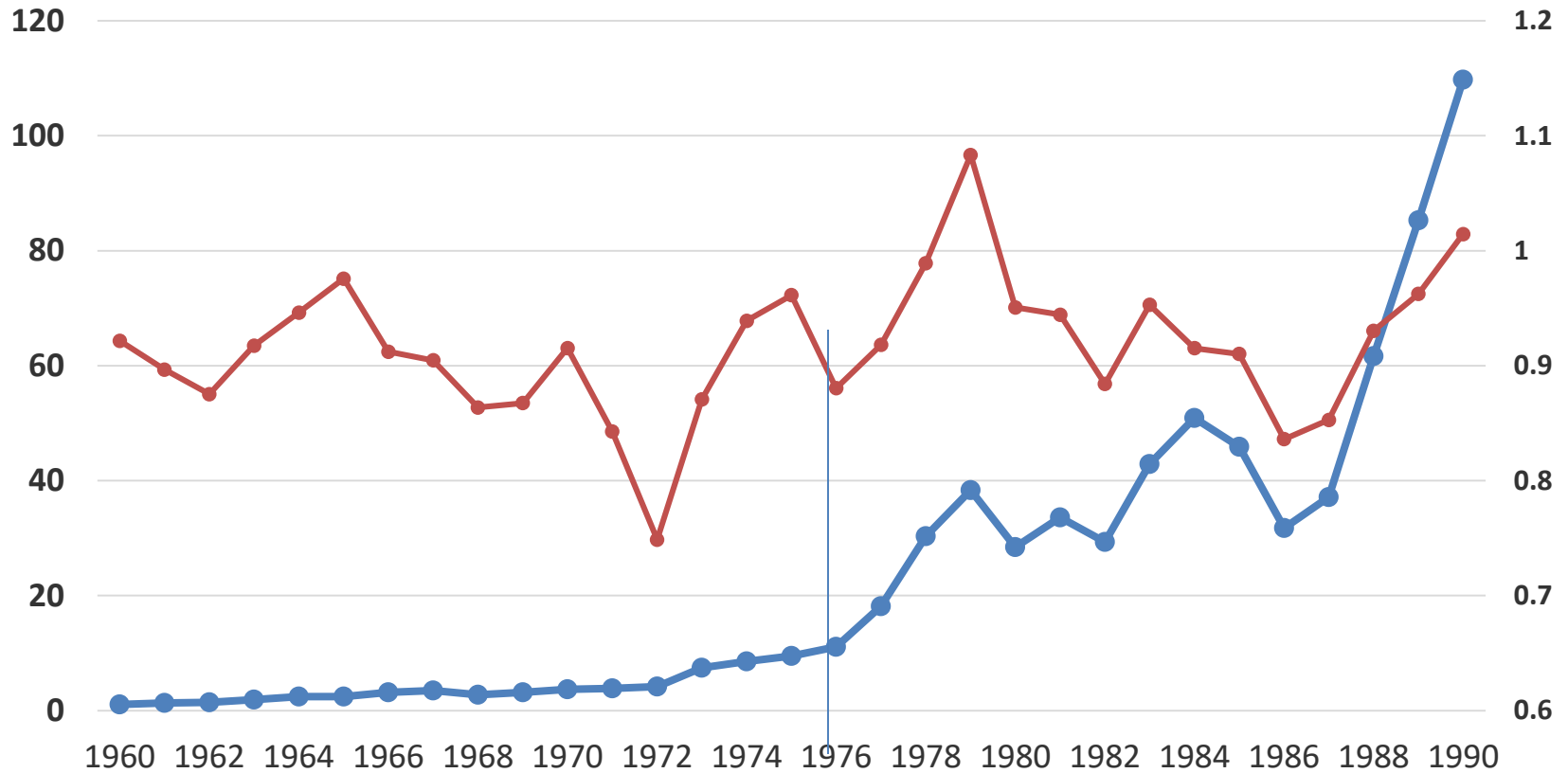
- Since 1973, commercial banks had began borrowing from abroad as a new source of funds.
- The amount of foreign borrowings moved in line with the loan-deposit ratio since 1976.
- Domestic savings no longer constrained financing domestic investment.
- Economic development requires financial deepening.

Thanks to foreign capital inflows

- Commercial banks borrowed from abroad to circumvent insufficient domestic savings.
- The growth of the economy was not limited by shortages of internal funds.
- International capital mobility through banks' foreign borrowing enhanced output growth.
- It was not just foreign ***trade openness*** but also ***financial openness*** through capital flows that permitted high economic growth during the first thirty years of economic development.

Foreign borrowing

Bank liquidity and foreign borrowing



- The amount of foreign borrowings moved in line with the loan-deposit ratio since 1976

● Foreign Liabilities (mil baht)

● Loan-Deposit Ratio (RHS)

Conclusions

- The long-term growth was characterized by a stable average annual growth rate of 7% between 1961 and 1990.
- The process of financial deepening led to price stability and strong economic growth.
- There were long-run relationships among real output, money supply, and bank credit.

Conclusions

- The trade openness (integration) has led to rapid growth and transformed the output structure of the Thai economy.
- We characterize Thailand's growth pattern as export-biased growth.
- During this period, the Thai economy experienced two oil price shocks, when inflation rose by two digits.

Conclusions

- The current account deficit was corrected by two major devaluations in 1981 and 1984.
- After the adoption of the basket of currencies system, the baht-dollar rate gradually returned to a fixed exchange rate system (once again), where the weight of the USD in the basket of currencies had gained more influence over the years.