





Core Inflation in Thailand

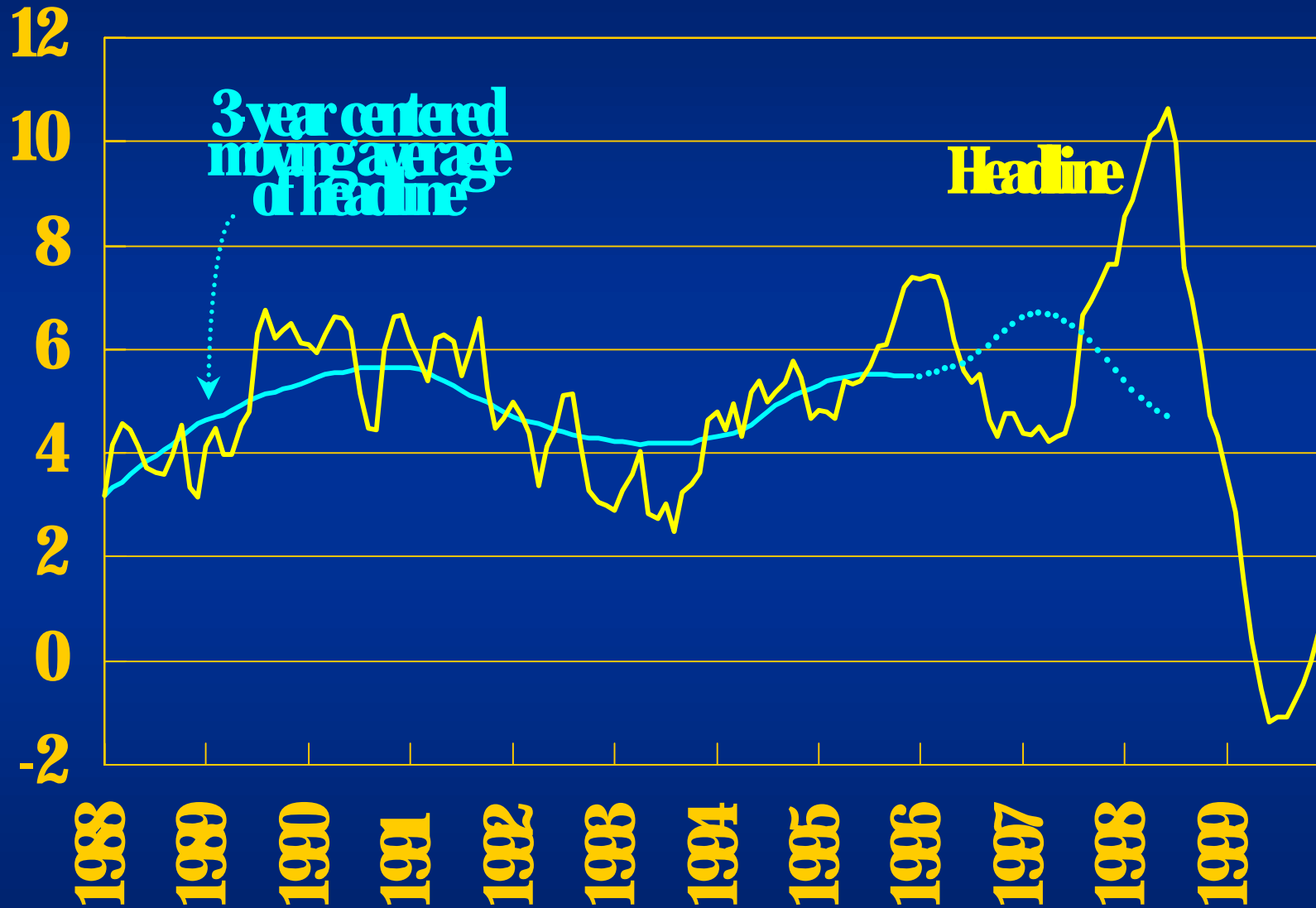
Issues, Measurement, and Policy Implications

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Movements in Headline Inflation



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Core inflation is a measure of inflation which reflects the permanent component of the change in the price level that can be effectively influenced by monetary policy.

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Motivations for Measuring Core Inflation

- (1) **“Clarity”** : to better reflect current and future trends in inflation
- (2) **“Controllability”** : to capture the part of inflation movements that is controllable by monetary policy
- (3) **“Credibility”** : to improve the credibility of the monetary authority

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Popular Technique of Measuring Core Inflation

- **Excludes some items of the CPI basket from core measure**
 - **Excluded items are determined *a priori* from time series (historical) price behaviors**
 - **Price movements of excluded items reflect shocks or changes which monetary policy may legitimately accommodate**

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Items Often Excluded from Core Measure

Type of Excluded Items	Examples
Subject to supply shocks Offsetting supply shocks would aggravate the adverse impact on output	Food prices Commodity prices Energy prices
Volatile but self-corrective movements due to seasonal behaviors	Food prices Commodity prices
Perverse response to monetary policy	Interest charges Mortgage interest Housing capital costs
Once and-for-all change	Indirect taxes
Possible policy conflicts	Controlled prices Government subsidies

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Exemptions from Headline Inflation

	Australia	Canada	Czech	Finland	NZ**	Spain	UK	Japan	USA
Food prices		X						X	X
Commodity prices					*				
Energy prices	X	X	X						X
Interest charges					X				
Mortgage interest	X					X	X		
Housing capital costs				X					
Indirect taxes		X	X	X	*				
Controlled prices	X		X		*				
Government subsidies			X						

* Escape clause for "unusual events"

** Statistics NZ will exclude interest services from the CPI

Sources: Haldane; Cufar et. al.; Reuters; Central banks' websites

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Countries Which Use Headline Inflation

IT countries

Israel, Mexico, Sweden,
New Zealand (Dec. 1990 Dec. 1997)

Non-IT countries

Germany, France*, Italy*,
Hong Kong, Malaysia, Singapore,
Switzerland

* France and Italy exclude the price of tobacco

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Choices of Exclusion from Core Measure for the Case of Thailand

(% CPI basket)

- **All food (38%)**
- **Raw food (17%)**
- **Energy (6%)**
- **Controlled prices (6%)**
- **Indirect taxes (VAT & excise taxes) (9%)**
- **Combinations of the above**

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“Clarity”

***Does the core measure provide
a clearer indication of current and future trends?***

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Inflation measures

*SD of series
1980-1997*

*RMSE from
current trend
1980-1997*

3 year centered ma
Headline inflation

0.79

1.85

0.84

Excluding

All food

1.73

1.08

Raw food

1.66

0.47

Energy

1.61

0.91

Controlled prices

1.74

0.91

Indirect taxes

1.43

0.83

Raw food & energy

1.35

0.69

Raw food, energy, taxes

1.06

0.66



“Controllability”

*Is the core measure
more correlated with or controllable through
monetary policy variables?*

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sample period
1993:01-1999:12

R^2 of regression

$$\Pi_{yoy,t} = \beta_0 + \sum_{k=24,36} \beta_k \Delta rp_{t-k}$$

RP1 week

Headline inflation

019

Excluding

All food

015

Raw food

019

Energy

027

Controlled prices

023

Indirect taxes

019

Raw food & energy

032

Raw food, energy, taxes

035



“Credibility”

*Does the core measure improve
the credibility of the monetary authority?*

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sample period
1993:01-1999:12

*Weight
excluded*

*Mean
of series*

Headline inflation

000

55

Excluding

All food

038

46

Rawfood

017

53

Energy

006

56

Controlled prices

006

54

Indirect taxes

009

52

Rawfood & energy

023

53

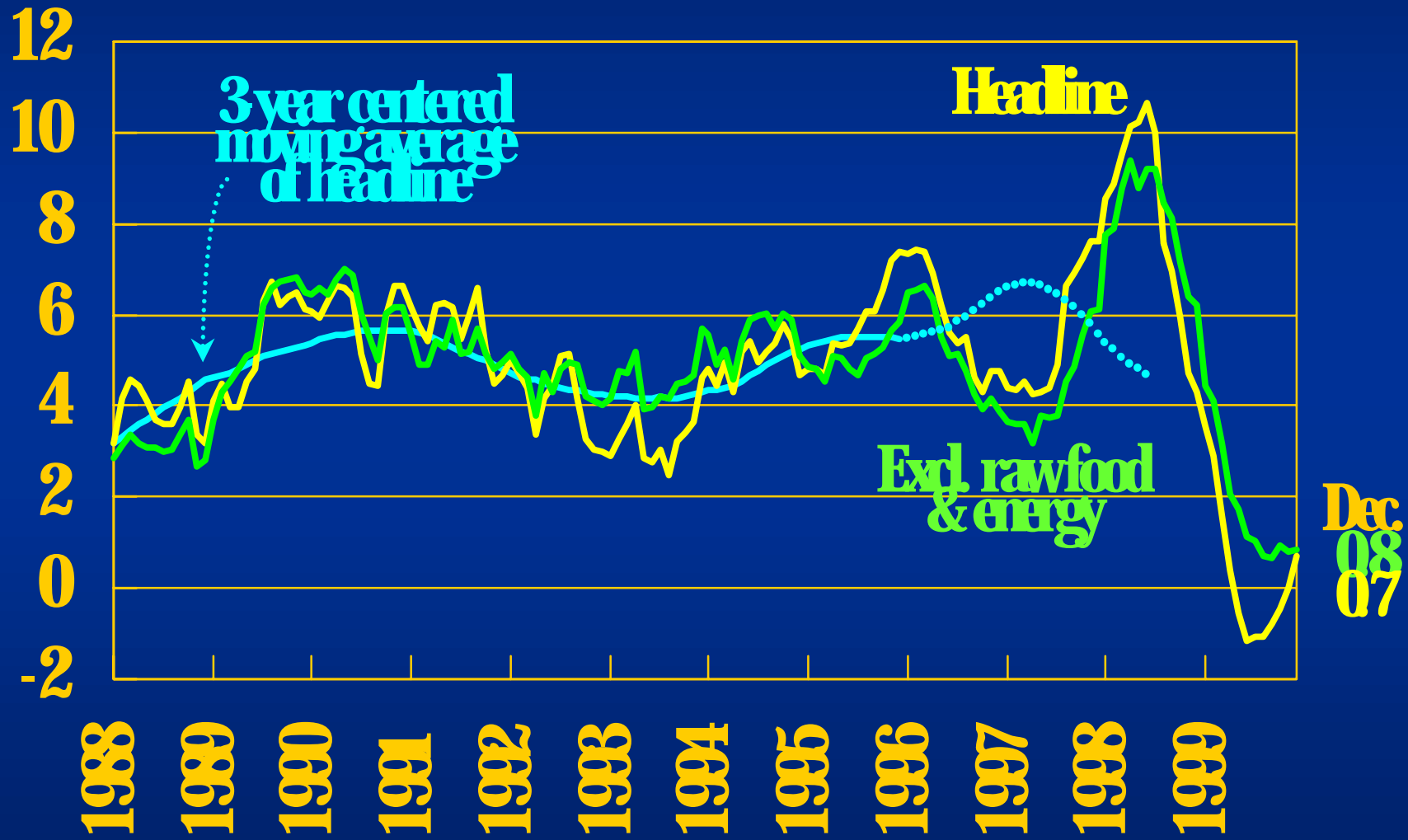
Rawfood, energy, taxes

031

49



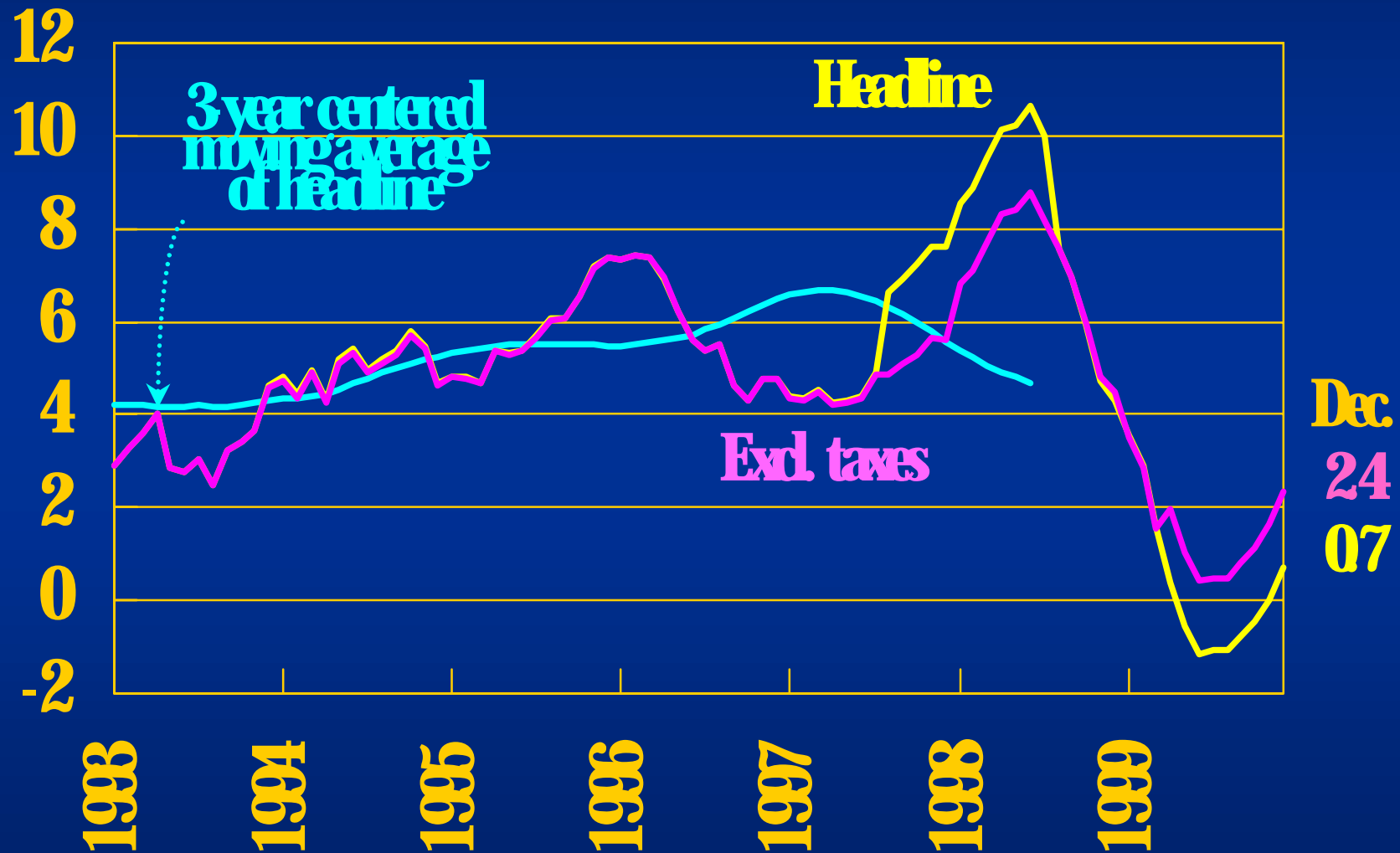
Headline Inflation and Core Inflation Excluding Raw Food & Energy



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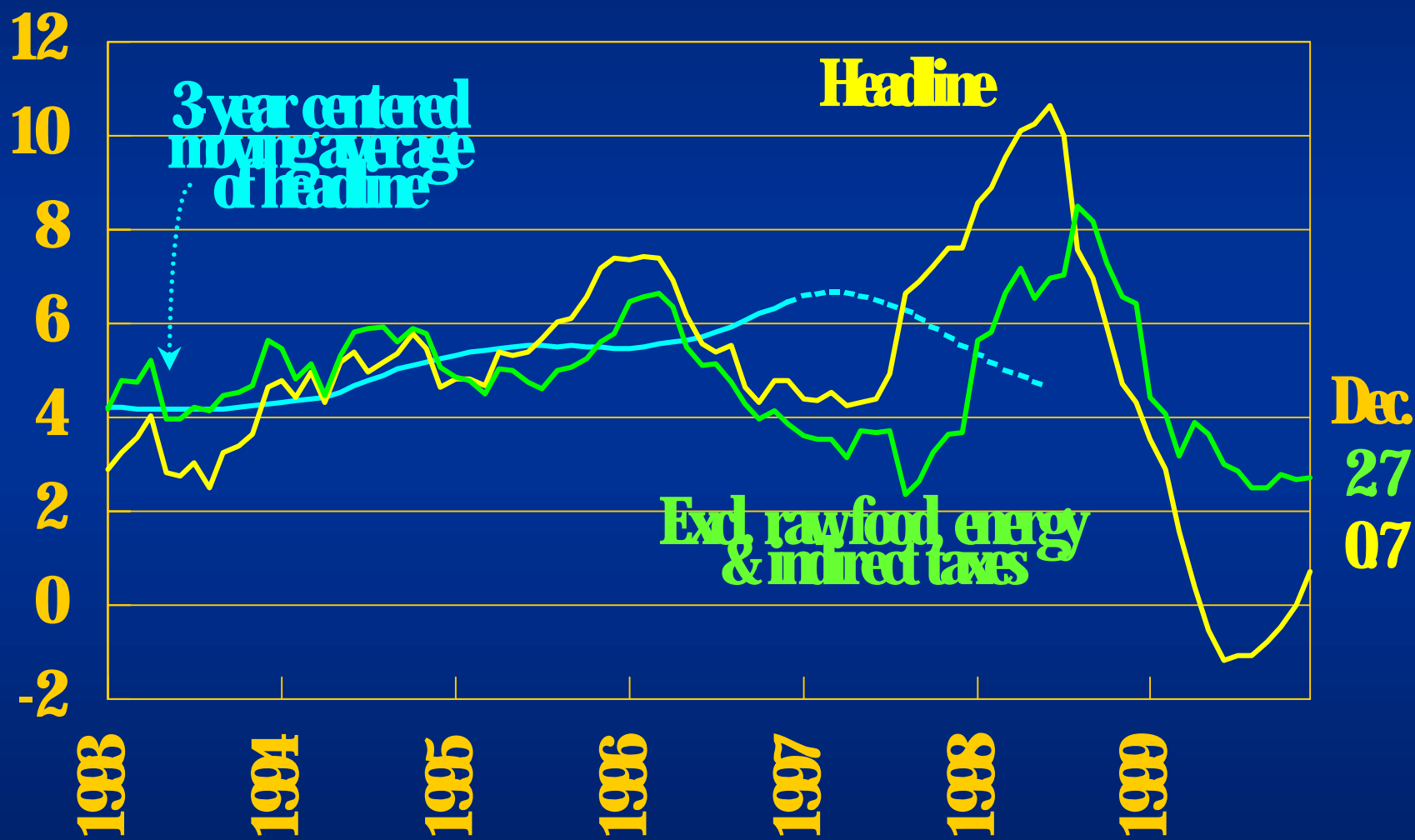
Headline Inflation and Core Inflation Excluding Indirect Taxes



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Headline Inflation and Core Inflation Excluding Raw Food, Energy & Indirect Taxes



Dec
27
07

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Alternative Approach to Measuring Core Inflation

- **Excludes some items of the CPI basket from core measure**
 - **Excluded items are the ones identified as “outliers” based on the cross-sectional distribution of monthly price changes**
 - **List of excluded items can change from month to month**

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Frequency of Trimming

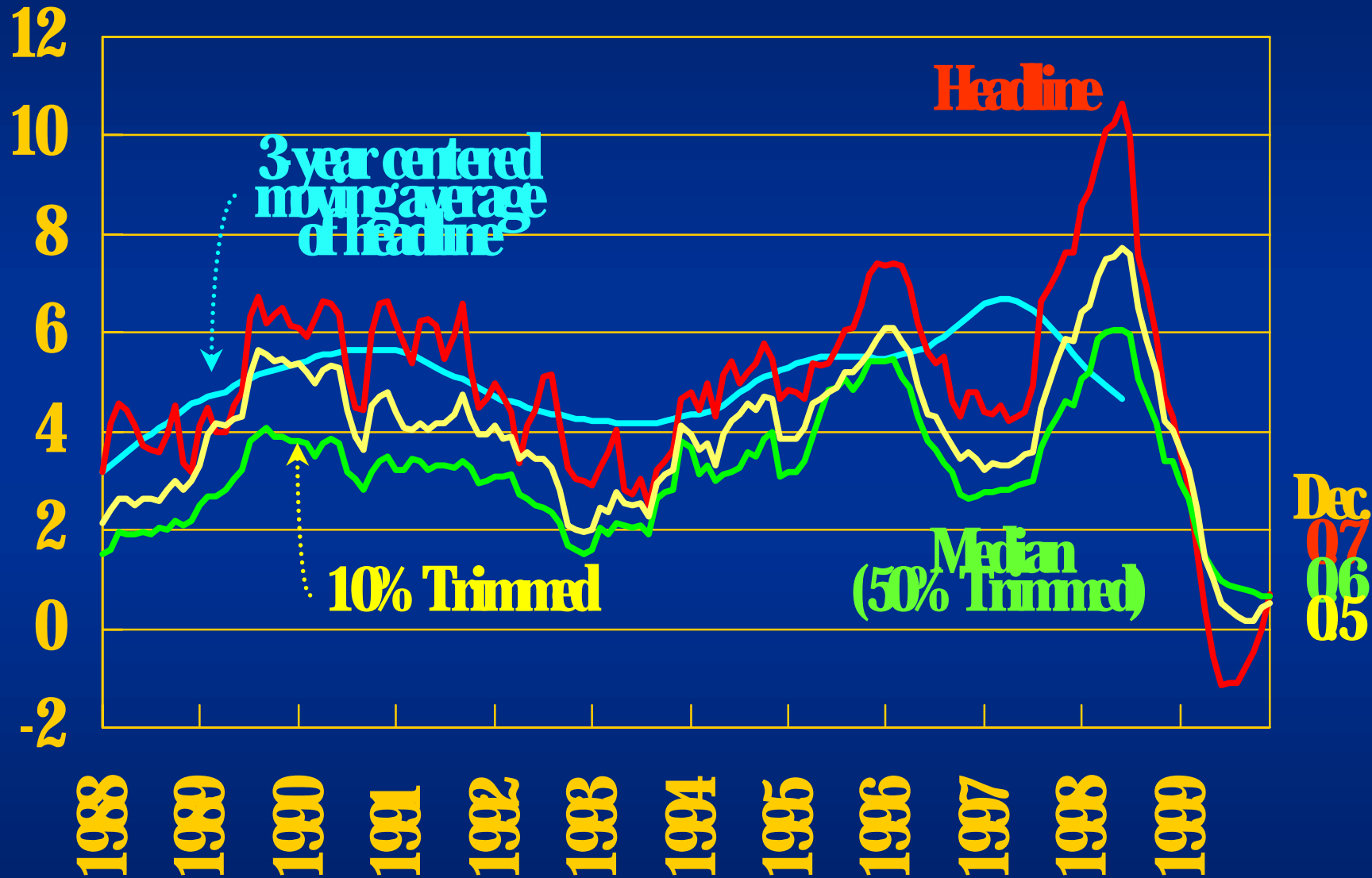
(31 Components, 1987:02-1999:12)

Most Frequently	Least Frequently
(1) Vegetables & fruits	(1) Shelter
(2) Vehicle items other than gasoline, cars & motorcycles	(2) Furniture
(3) Benzene	(3) Household textiles
(4) Diesel	(4) Men's apparel
(5) Cars	(5) Women's apparel
(6) Rice, flour & flour products	(5) Personal services
(7) Motorcycles	(7) Recreation
(8) Eggs & dairy products	(8) Clothes
(9) Meat, poultry & fish	(9) Medical services
(9) Utilities	(9) Communications

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Headline and Trimmed Mean Inflation



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Policy Implications

**Option 1: Target CPI inflation
but also monitor core inflation**

**Option 2 Target core inflation
excluding raw food & energy
(& indirect taxes)**

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Advantages of Core Inflation Excluding Raw Food & Energy (& Indirect Taxes)

- Significantly lower volatility, clearer inflation trend
- Remaining part is more responsive to monetary policy
- Move closely with cost of living
- Acceptable loss in comprehensiveness

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