



South African/SACU Experience with Tobacco Taxation: Lessons Learned and Relevance for other SADC countries

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Tobacco use and taxation has a long history

- King James I of England (1604):

“....a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black stinking fume thereof nearest resembling the horrible Stygian smoke of the pit that is bottomless.”
- Adam Smith (1776):

“sugar, rum, and tobacco, are commodities which are nowhere necessaries of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation.”

Until 1994 the tobacco industry and the government were strongly aligned

Minister of Finance, 1983: “The Tobacco Board has presented justified arguments for the maintenance of the status quo regarding the excise taxes on tobacco, and I do not intend to wake sleeping dogs”

Minister of Finance, 1986: “any increases in excise duties at present could be counter-productive, since it could in fact – on account of the potentially adverse effect on consumption – lead to a reduction of revenue from this source”

Article 5.3 of the FCTC:

In setting and implementing their public health policies with respect to tobacco control, Parties shall act to protect these policies from commercial and other vested interests of the tobacco industry in accordance with national law

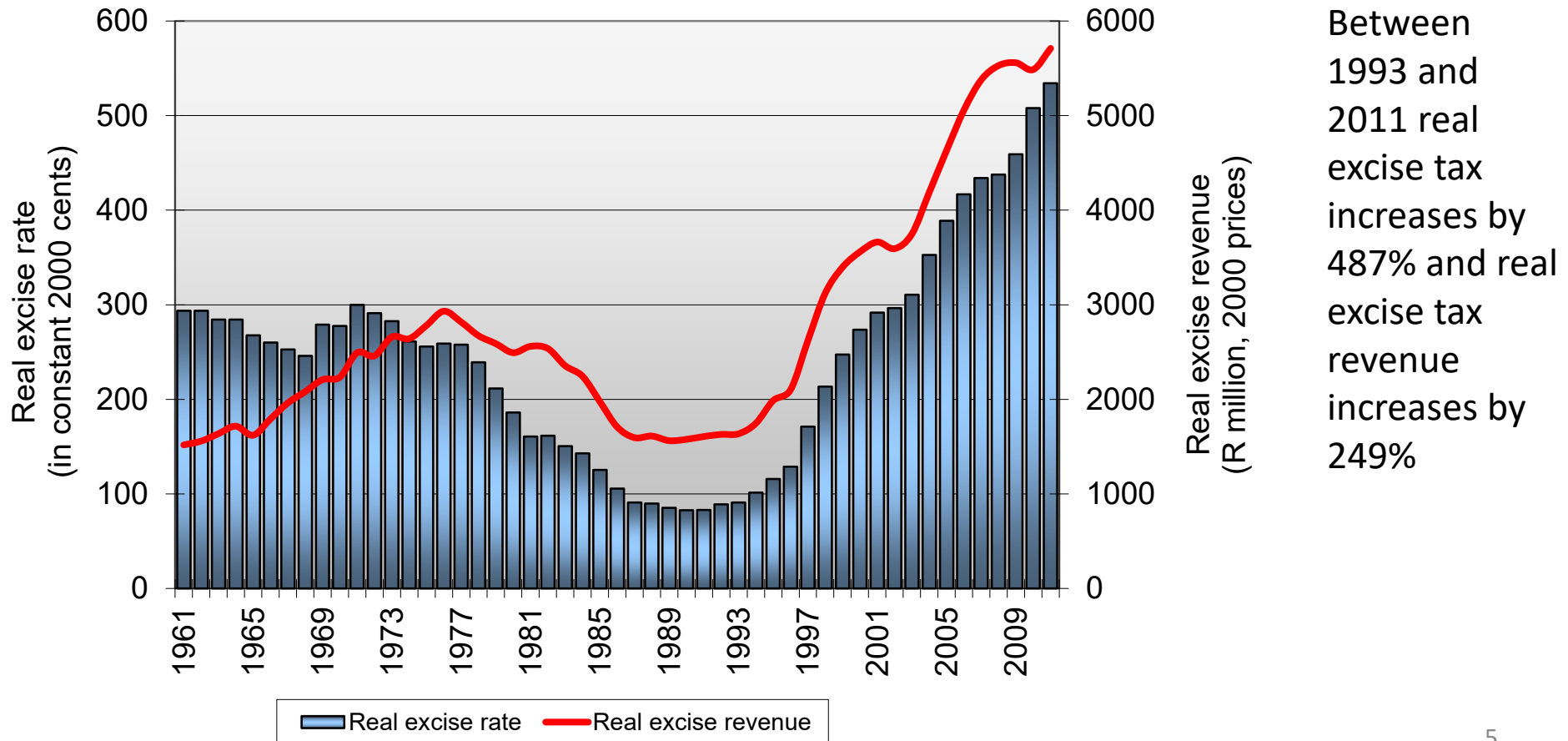


Excise tax policy in SA since 1994

- In 1994 the government announced that it intended to raise the excise tax to 50% of the retail price
 - Explicit acknowledgement that it had a public health goal
- Subsequently this statement was reinterpreted to mean that total tax burden (i.e. excise tax plus VAT should equal 50% of the retail price)
- In 2006 the total excise tax target was raised to 52% of the retail price
- Result of this excise tax policy:
 - Treasury passively changes the specific excise tax to maintain the 50% (or 52%) tax burden
 - High degree of predictability for both Treasury and industry
 - Government has largely transferred tobacco control policy to the industry, away from itself

The South African experience, 1961 - 2011

Big increases in the excise tax have resulted in big increases in tax revenue



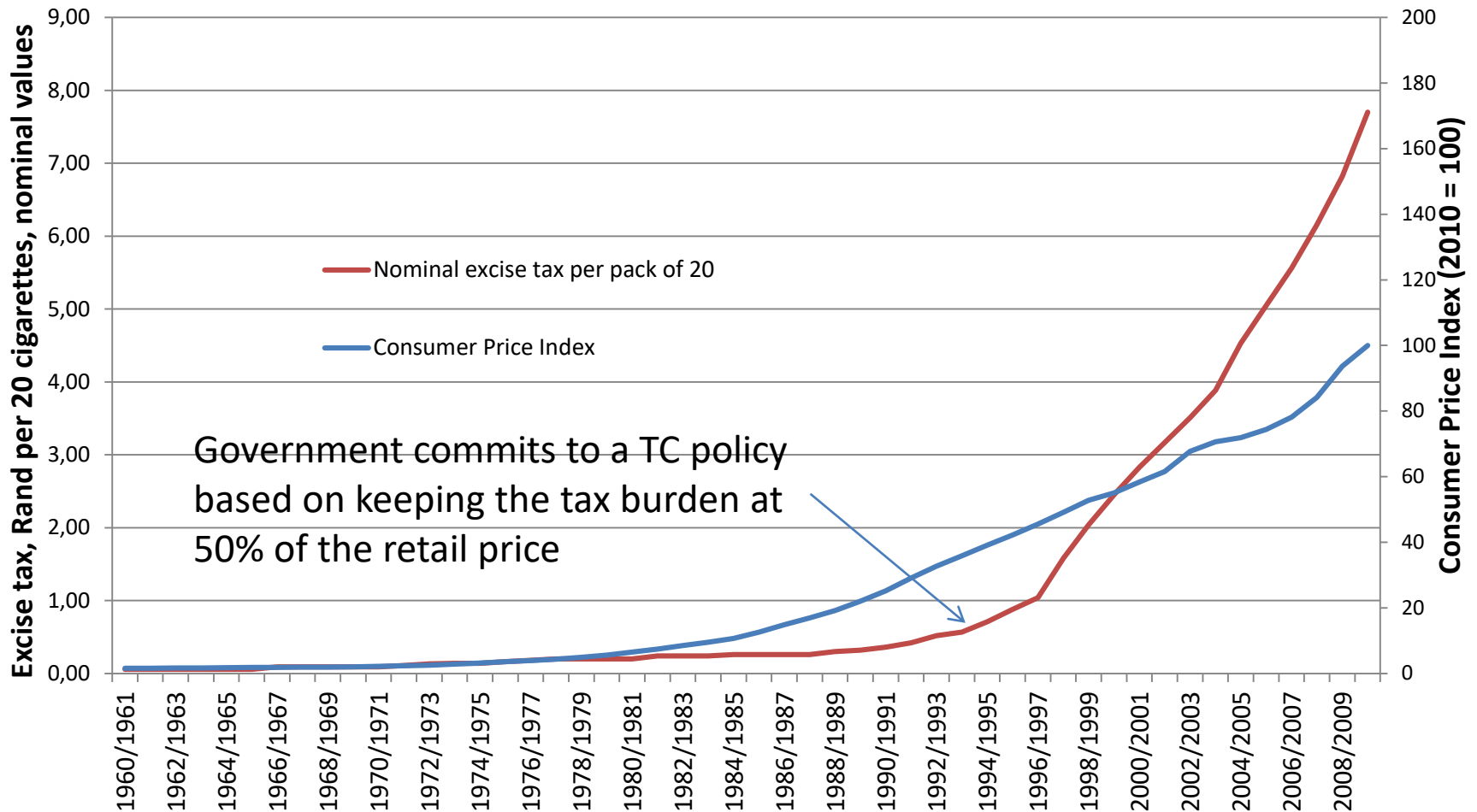
Why are excise tax increases so effective in reducing tobacco consumption?

- Despite its addictiveness, people respond to changes in the price of cigarettes
- Price elasticity of demand for cigarettes in SA (and many low- and middle-income countries is around -0.6)
- Thus a 10% increase in cigarette prices reduces consumption by 6%
- Not all people respond to changes in cigarette prices, but the poor and youth are typically more responsive than the better-off and the old
- Some indicative numbers:
 - 1000 smokers initially
 - If price increases by 10%, we would expect 3% (= 30) smokers to quit
 - Remaining smokers will cut down their consumption by an average of 3% (some more and some less)

Setting the excise tax in SA

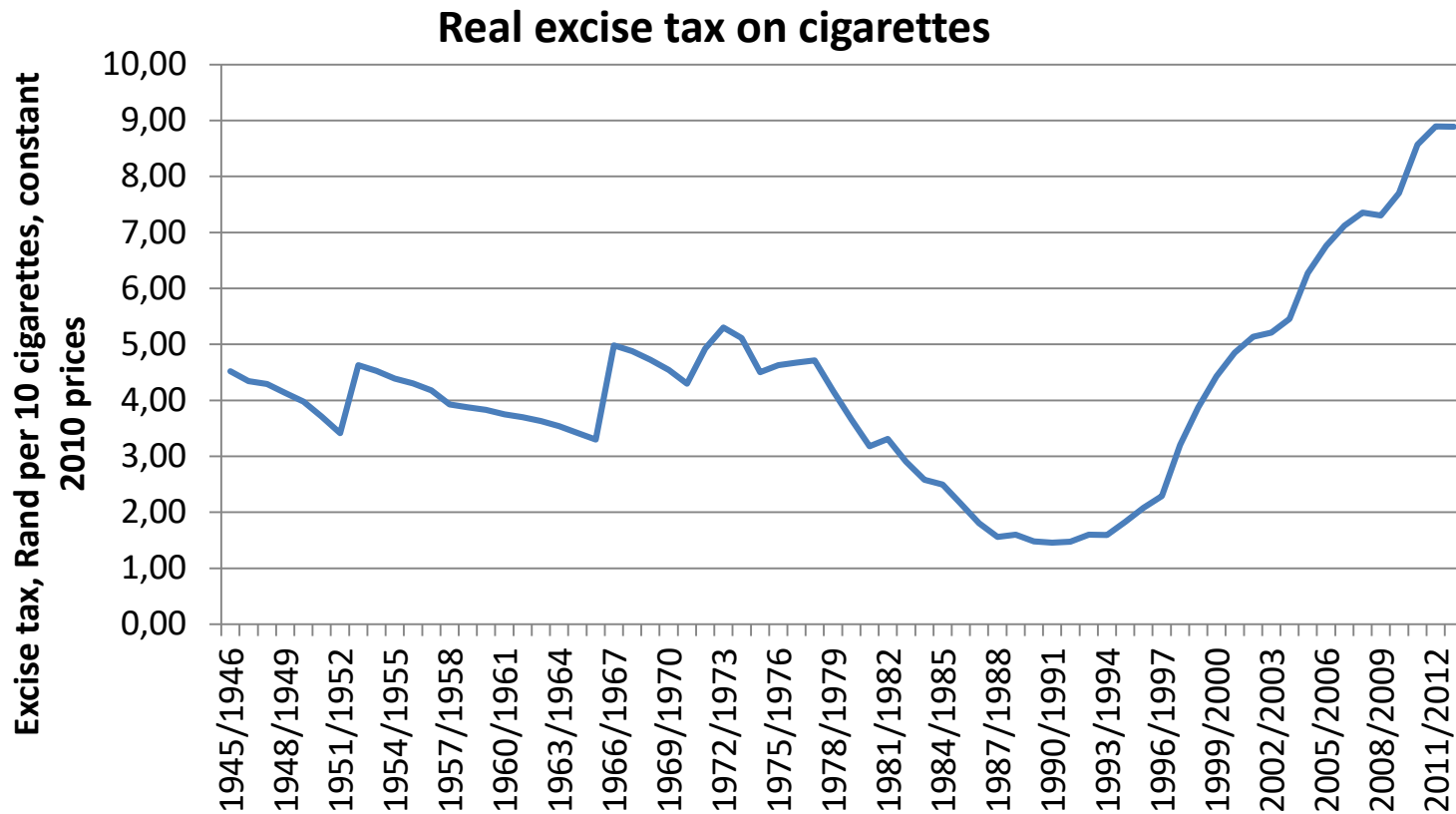
- Tobacco excise tax and other “sin taxes” are levied as specific tax
- Specific taxes have some nice features:
 - Easy to determine the quantum of tax
 - Auditing is much easier
 - Differences between high-price and low-price cigarettes are smaller than with ad valorem excise tax
 - BUT specific tax is eroded by inflation if not adjusted regularly
- Excise tax is set by Treasury
- Announced by Minister of Finance at reading of the budget
- Taxes apply to all SACU members (SA, Botswana, Namibia, Lesotho and Swaziland)
 - Other SACU members may charge higher excise taxes (e.g. Botswana on alcohol)

Since 1994 rapid excise tax increases followed the small nominal increases in the 1970s and 1980s



Lesson learnt

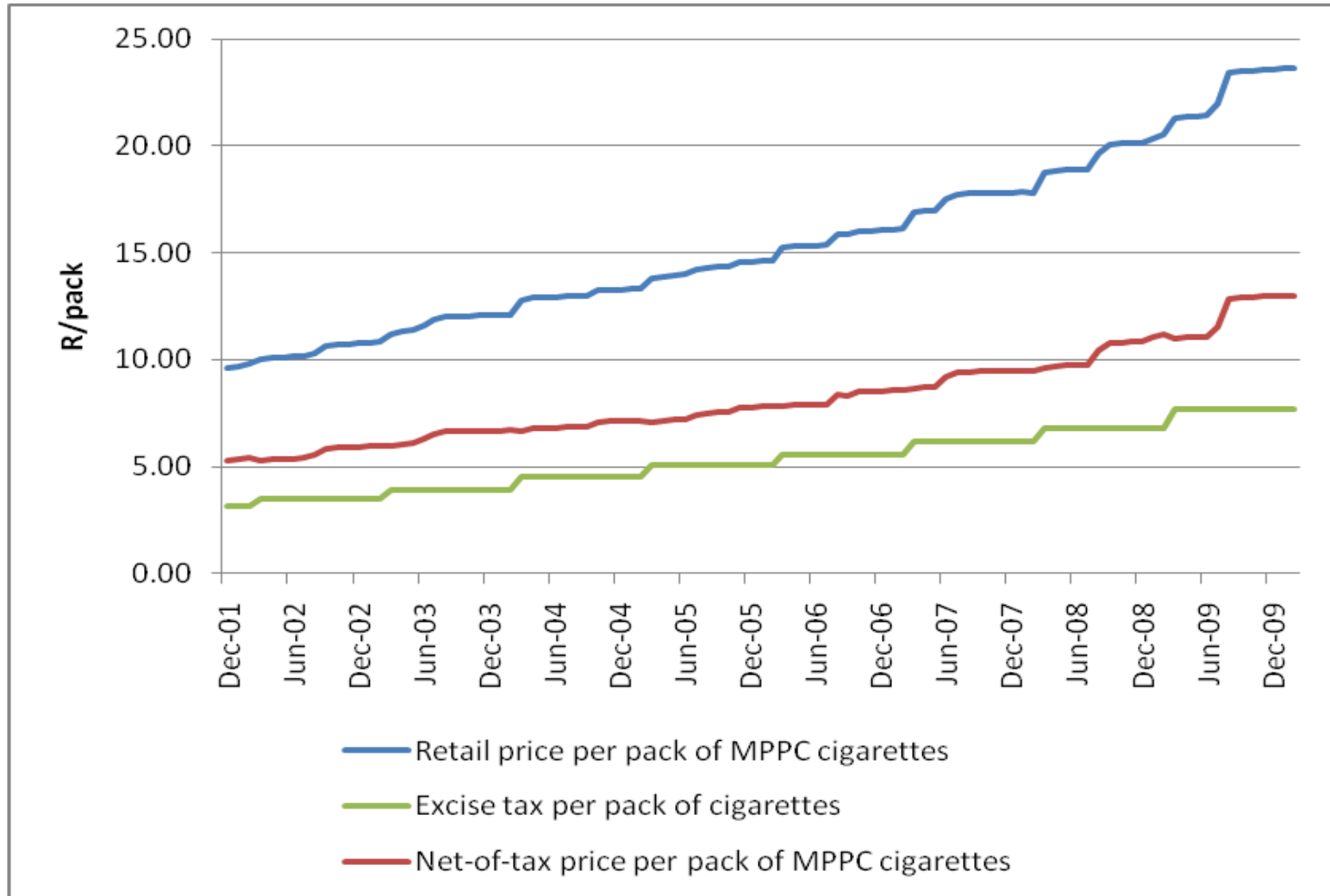
- In an inflationary environment and/or in a long-term comparative situation, one should focus on real values, rather than nominal values



The industry's pricing strategy and its impact

- BATSA is a near-monopolist with at least 92% share of (legal) sales
- Being a monopolist it has significant pricing power
- In a “dark market” it is difficult for competitive firms to enter the market
- BATSA is a price leader; other firms follow
- Understanding price elasticity, the industry knows that it can raise its revenues by increasing the net-of-tax price of cigarettes
- Since the government is already raising the retail price by increasing the excise tax (thus reducing consumption and industry revenues), the industry responds by raising the net-of-tax price

The quantum of the excise tax is determined by the net-of-tax price



How does this work in practice?

Government raises excise tax



Retail price increases



Consumption decreases



Industry revenue decreases (if net-of-tax price does not change)



Industry increases the net-of-tax price

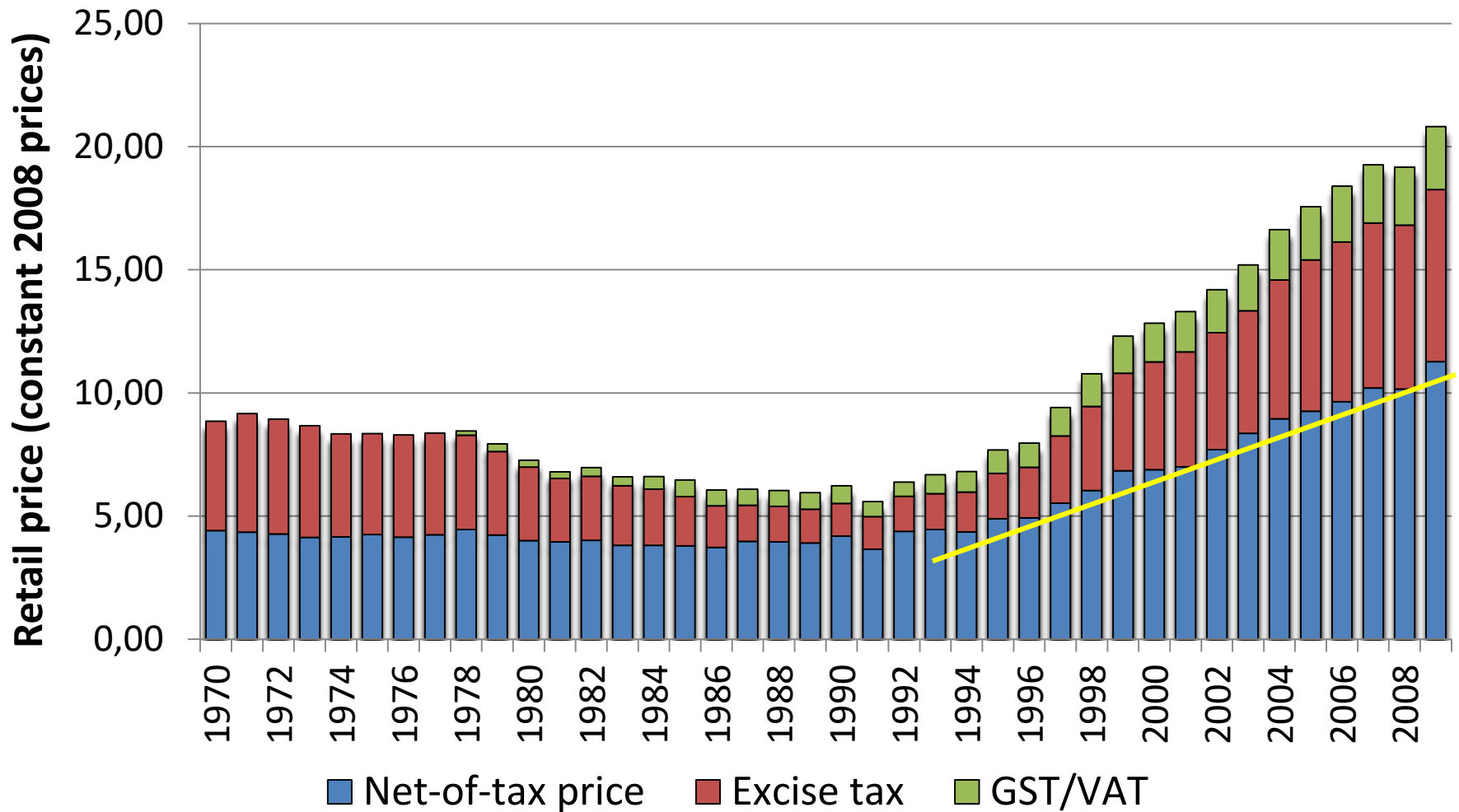


Retail price increases

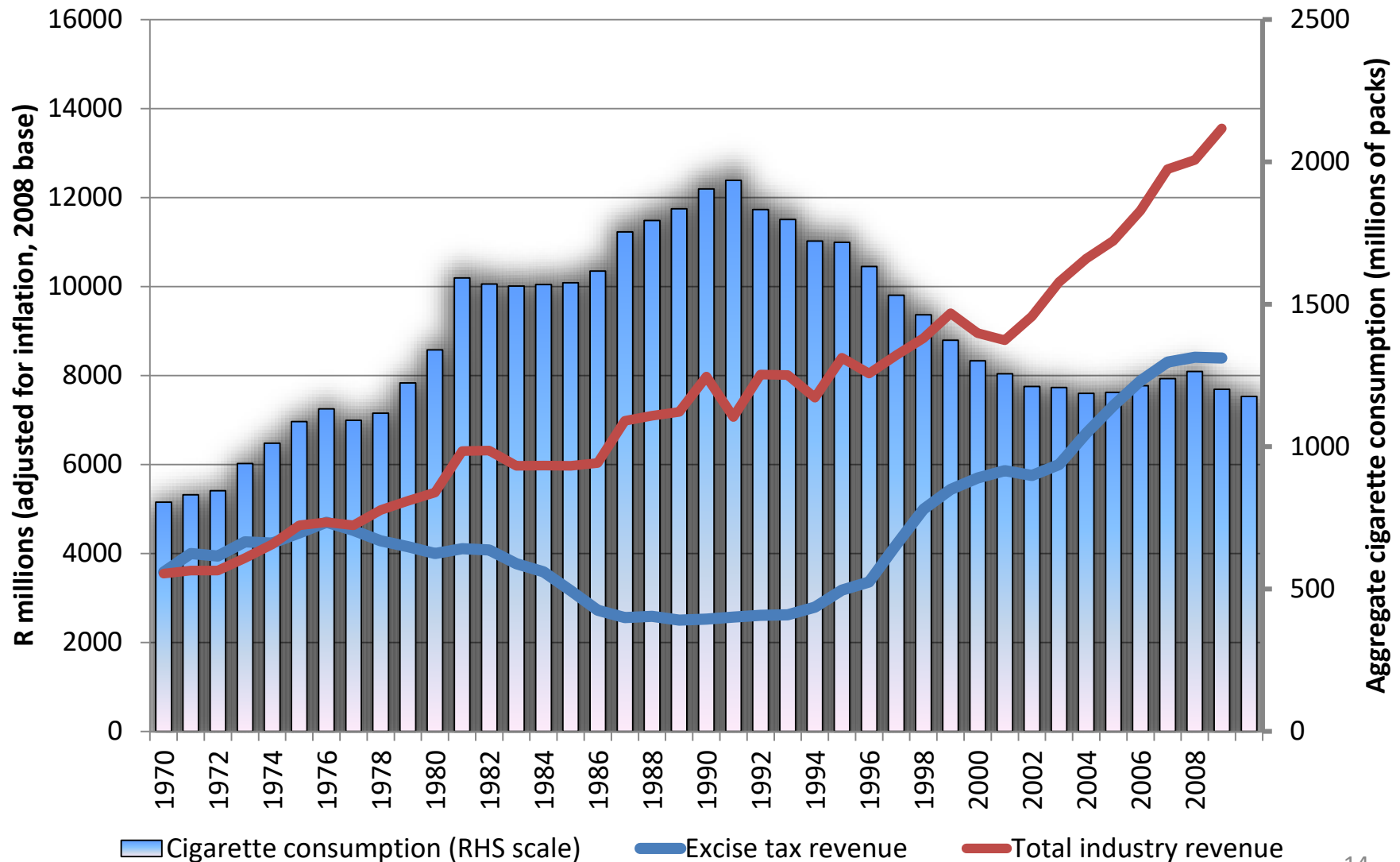


Government raises excise tax to maintain 52% tax burden

A long-term view on the composition of the retail price



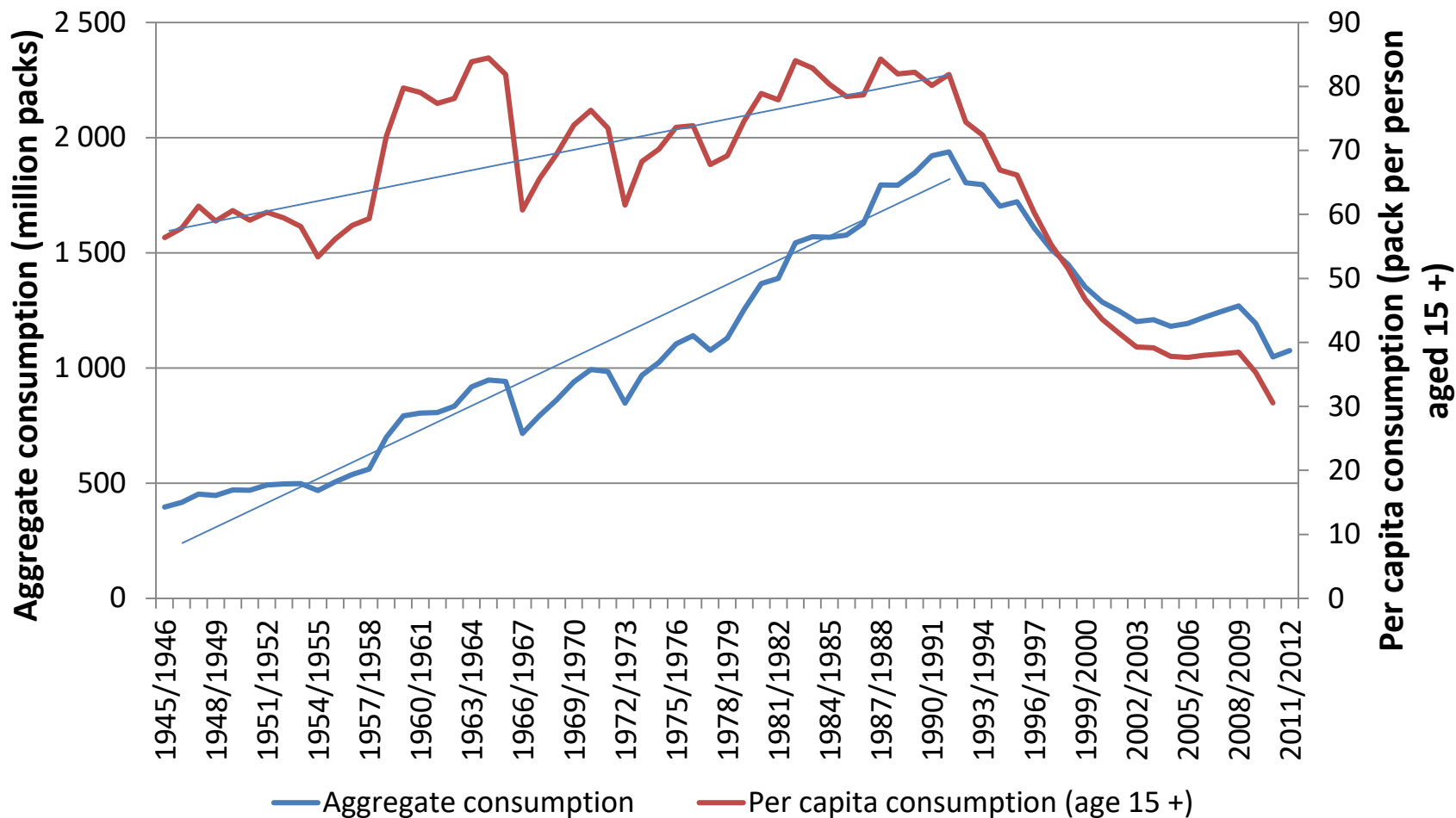
Despite a large fall in consumption, real excise revenues and industry revenues have greatly increased



Percentage changes in important variables since 1993

Variable	Percentage
Real excise tax per pack of cigarettes	378%
Real net-of-tax price of cigarettes	153%
Real retail price	212%
Cigarette consumption	-33%
Per capita cigarette consumption	-51%
Real excise tax revenue	220%
Real industry revenue	69%
Smoking prevalence	From about 35% to about 22%

Cigarette consumption in SA, 1946 - 2011



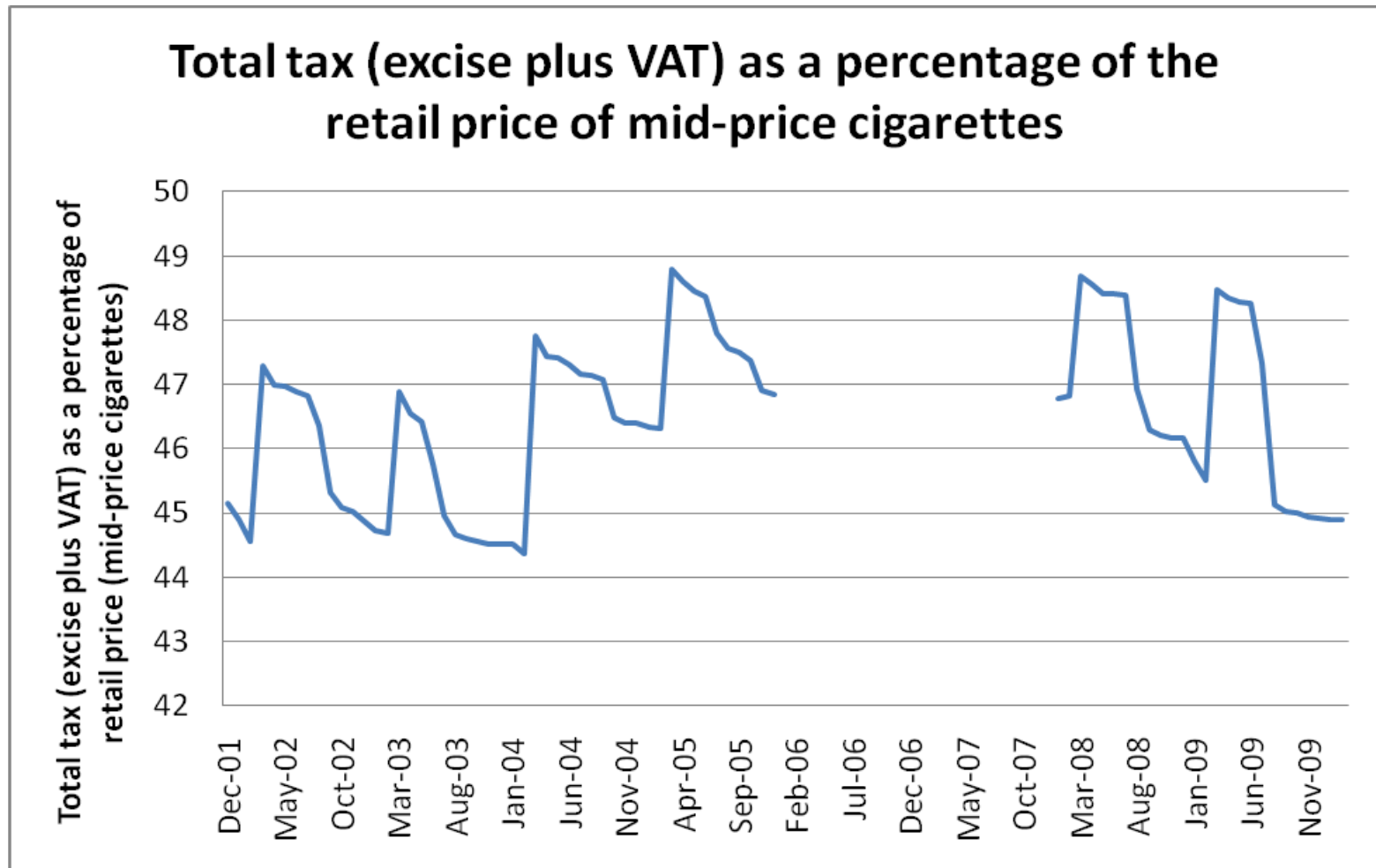
Some important issues and lessons

1. The ex ante (stated) burden of the tax and the ex post (actual) burden of the tax
2. Cigarette affordability
3. The threat of illicit trade

The actual burden of the tax vs. the stated burden of the tax

- *Stated total tax burden* = 52% of the retail price of the “most popular brand” category
- This seems to be the *recommended* retail price, as published by BATSA
- Actual average selling price of most popular brand is higher than recommended selling price, based on Stats SA survey of prices
- It seems that the tax increase announced at budget time does not take into consideration that the tax is passed onto consumers in form of higher selling price
- Result: the actual tax burden always runs behind the targeted tax burden

Because of the pricing and excise tax dynamics, the stated tax burden is not reached



Source: Unpublished data on prices, Statistics South Africa

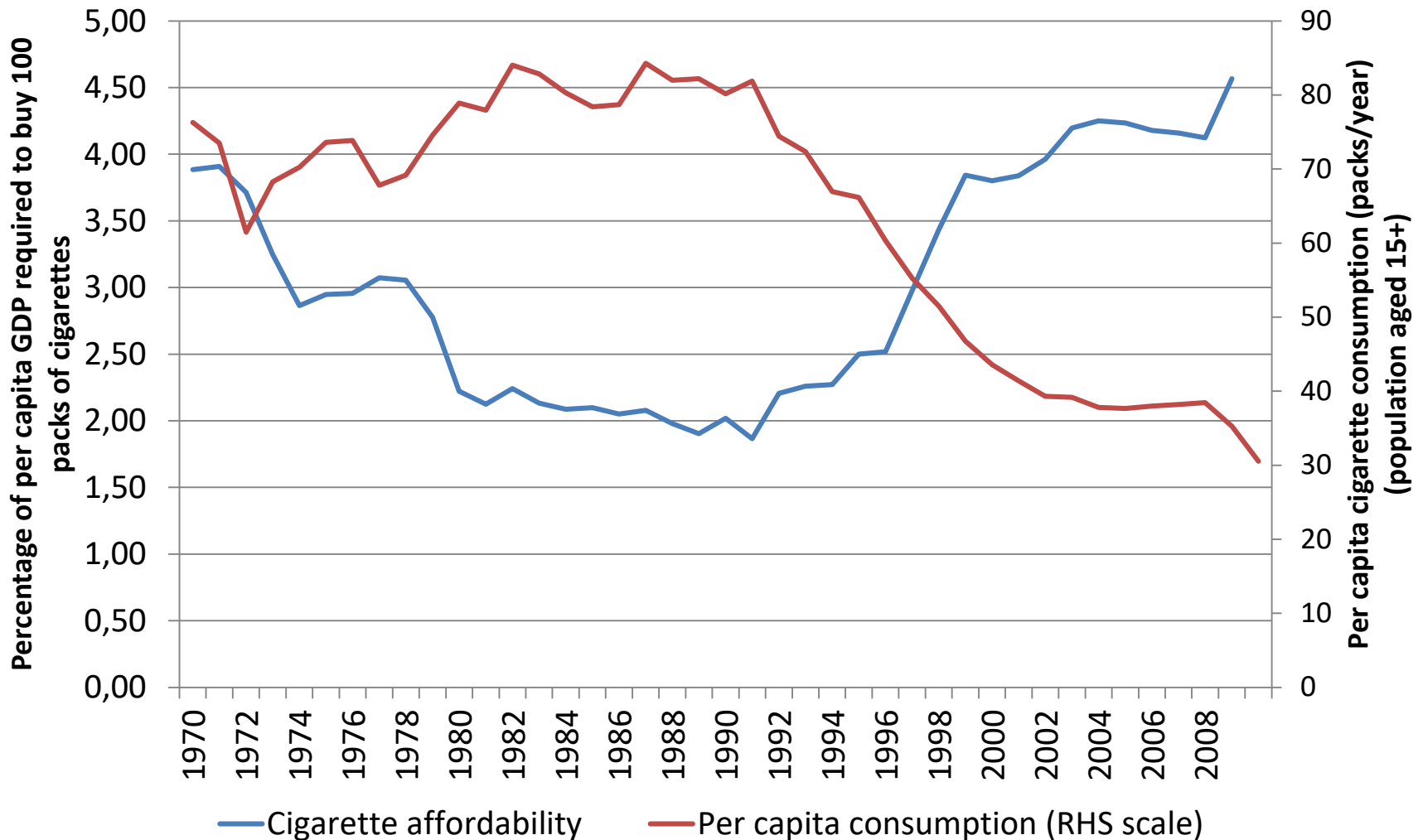
A possible solution

- When calculating the tax increase required to maintain the 52% tax burden, assume that the tax will be fully passed on to the consumer
- Adopt a completely new excise tax model, not based on a targeted tax burden, but where the quantum of the excise tax increase is determined exogenously of the industry's pricing mechanism

Is cigarette affordability important?

- Cigarette tax and price are important determinants of cigarette consumption
- *Income growth* is also an important determinant of consumption
 - As average income levels increase, cigarette consumption increases
- Affordability of anything depends on the price and income
- Affordability index for cigarettes: what percentage of per capita GDP is required to buy 100 packs of cigarettes?
 - If this index increases, more resources are required to buy a pack of cigarettes, and thus cigarettes become less affordable (and vice versa)

An uncannily close relationship between cigarette consumption and affordability ($r = -0.98$)



Implications of this

- When average incomes increase, cigarette consumption tends to increase, *ceteris paribus*
- We want rapid economic growth, but presumably we do not want rapid increases in cigarette consumption
- Increases in the excise tax (and price) of cigarettes should counteract the impact of increases in average income
- Suggestion: Increase the excise tax, taking cognizance of both the inflation rate and changes in real GDP

The threat of smuggling and other illicit activity

- Industry argues that illicit trade is big and growing
- Of course there is illicit cigarette activity in South Africa
- Economic theory indicates that greater excise taxes create incentives for tax evasion and avoidance
- The contention is:
 - How big is the problem?
 - How much of an impact does it have on the crucial parameters (especially government revenue and consumption)?

The scale of the illicit trade problem

2006: TISA “illicit trade has grown from zero ten years ago to 20% of the total South African market”

2007-2010: TISA estimates the illicit market share as 20% of the market

2011: TISA estimates the illicit market as 25% of the South African market

Year	Illicit sales in billion sticks (BAT numbers)	Legal sales in billion sticks (BAT numbers)	Implied total sales in billion sticks (BAT numbers)	Illicit market share (percentage)	Legal sales in billion sticks (official numbers)
2008	3.1	25.1	28.2	11.0	25.3
2009	4.6	23.1	27.7	16.6	24.2
2010	6.3	21.0	27.3	23.1	21.6

Source: BAT, 2010

The problem

- We cannot easily get believable data on the magnitude of the share of illicit cigarettes, without doing comprehensive and expensive surveys
- The question briefly addressed here:
 - Can we determine, from official sources, whether cigarette consumption has decreased to the extent that it becomes a significant problem for government revenue?

If illicit trade in tobacco becomes an increasing problem, one would expect the following:

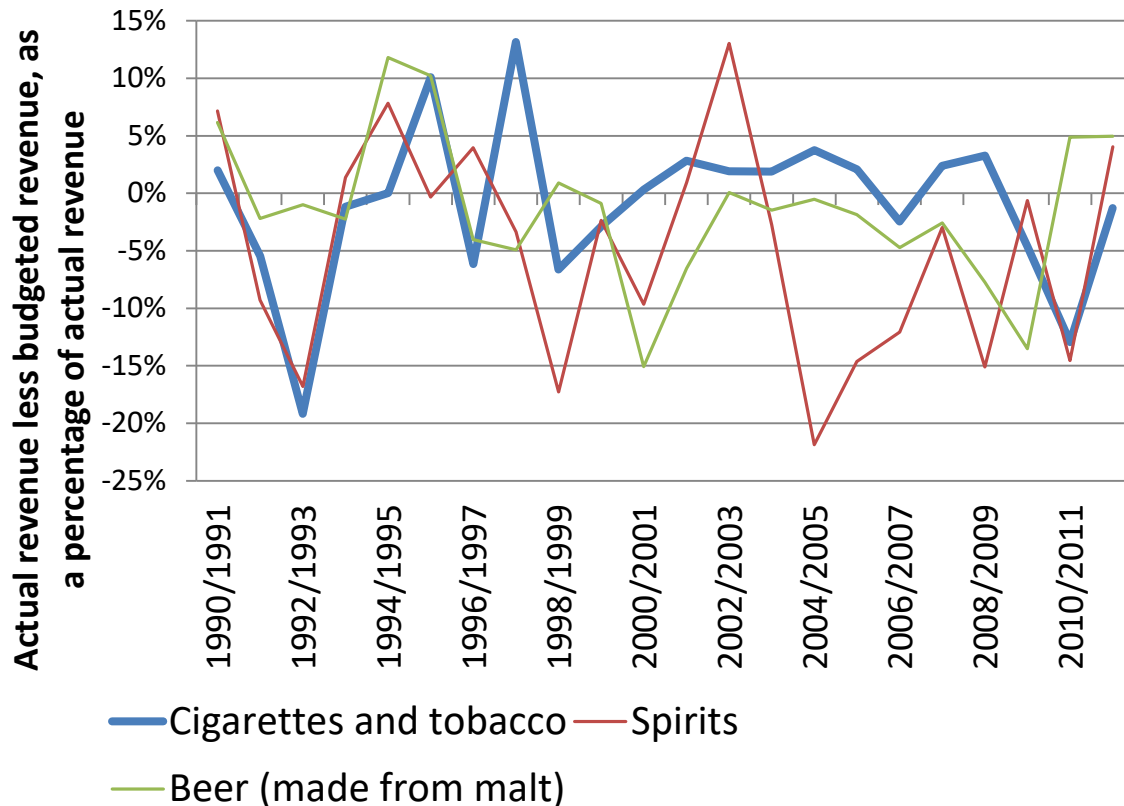
- Large deviations in actual revenue from budgeted revenue
- Consistent over-budgeting of revenues (and thus disappointing actual revenues)

How large are the deviations from budget, on average?

Theil's U-coefficient: zero = no deviation; large U-coefficient = large deviation, on average

Financial years by decade	Beer made from malt	Spirits	Cigarettes and tobacco products
1950/51 to 1959/60	0.090	0.090	0.221
1960/61 to 1969/70	0.133	0.049	0.040
1970/71 to 1979/80	0.093	0.140	0.047
1980/81 to 1989/90	0.084	0.115	0.034
1990/91 to 1999/2000	0.058	0.087	0.083
2000/01 to 2011/12	0.066	0.112	0.049

There is no evidence that the Treasury officials were consistently over-budgeting tobacco revenue



Average deviation from budget (1994/5 to 2011/12):
Beer: - 1.7%
Spirits: - 4.9%
Cigarettes & tobacco: + 0.3%

The budgeted revenues for cigarette and tobacco excise taxes were very accurate on average; for beer and especially spirits they were rather optimistic

Conclusion

- South Africa's excise tax model has worked well in the past but the quantum of the excise tax increase is wholly controlled by the tobacco industry
- A tax model where the excise tax increases in a predictable amount in real terms, and accounts for the growth in real GDP, is required
- There is little evidence to indicate that the growth in illicit trade has significantly undermined government's excise revenue
- The decrease in the quantity of cigarettes consumed is in line with what one would have expected, given the tax and price increases of the past two decades