



CPB Netherlands Bureau for Economic
Policy Analysis



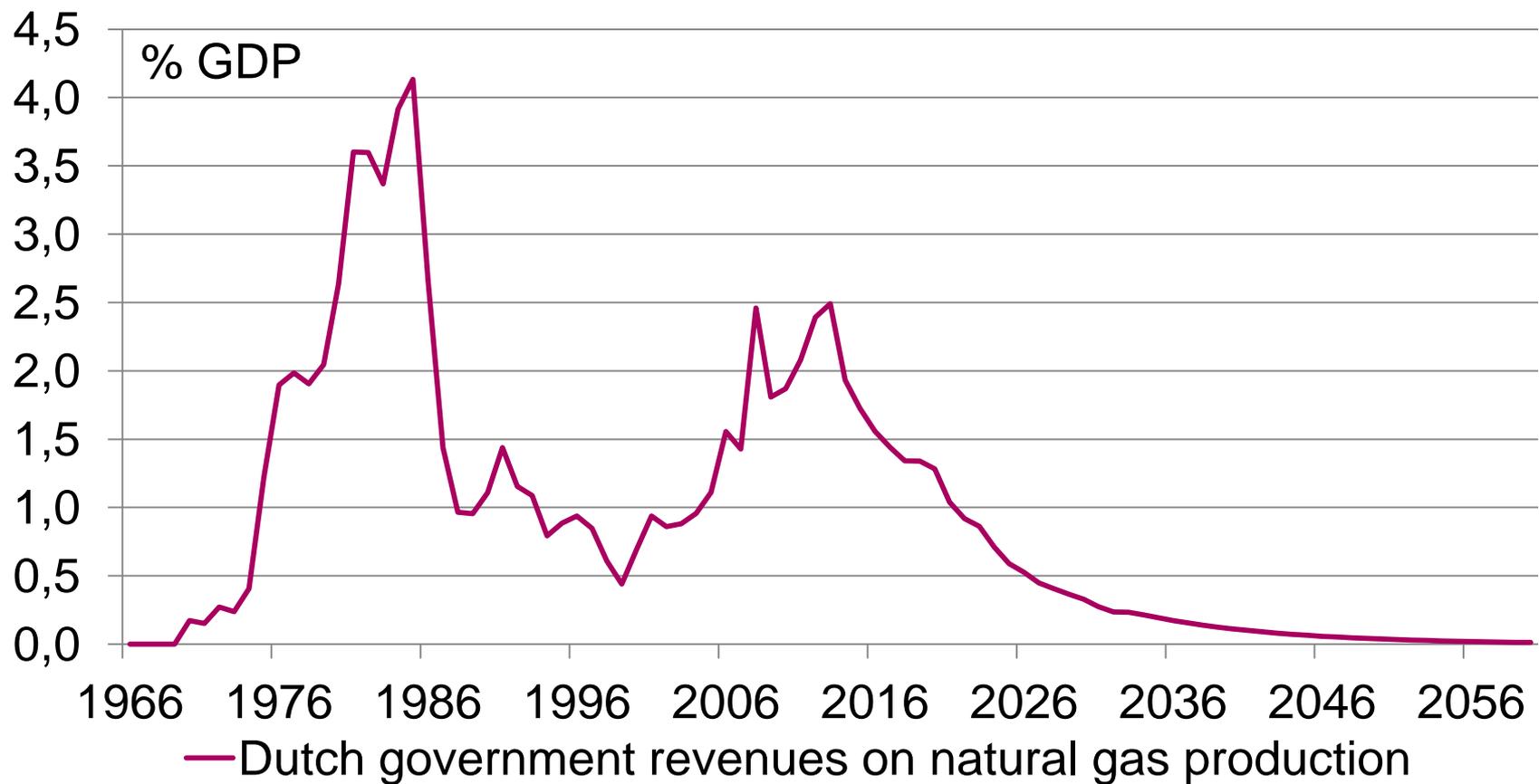
Resources revenues and the State budget, the Dutch experience

by Johannes Hers and Wim
Suyker

Contribution to Programme for
Ministry of Energy, Commerce,
Industry and Tourism of Cyprus

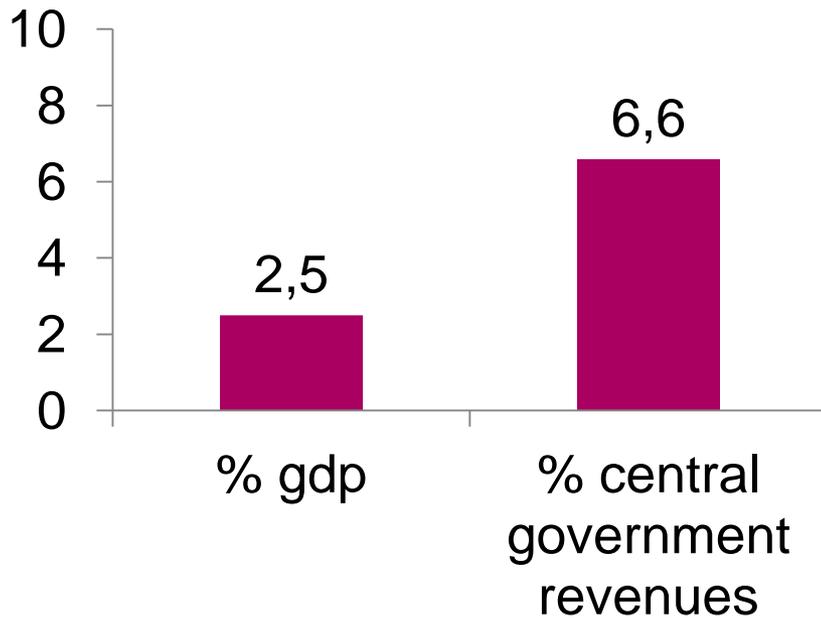


The rise and fall and rise and fall

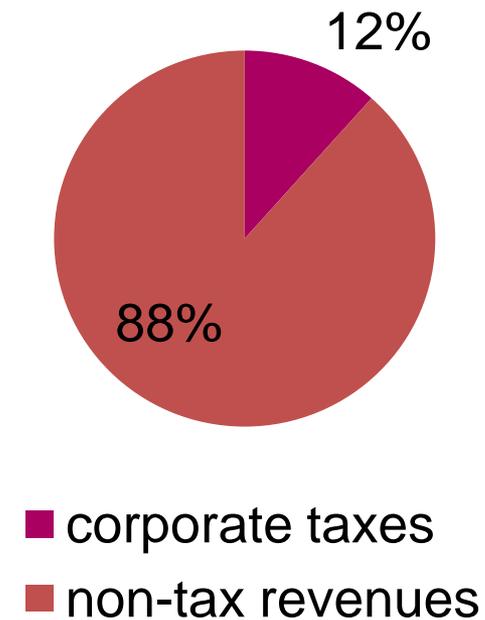




Dutch government revenues on natural gas production, 2013

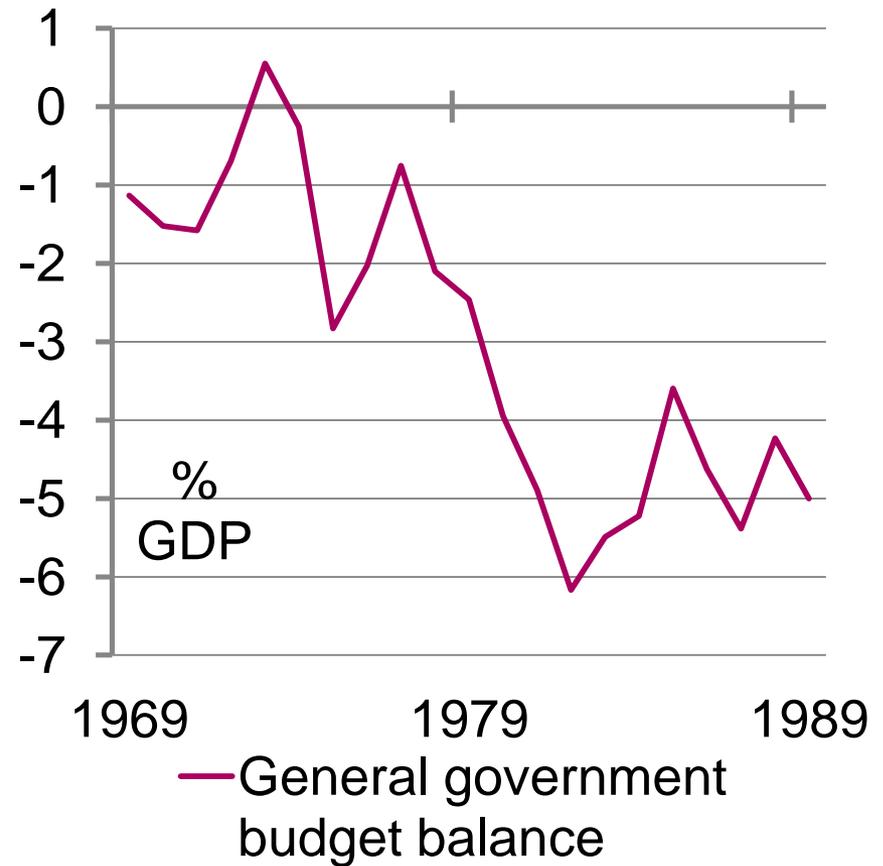
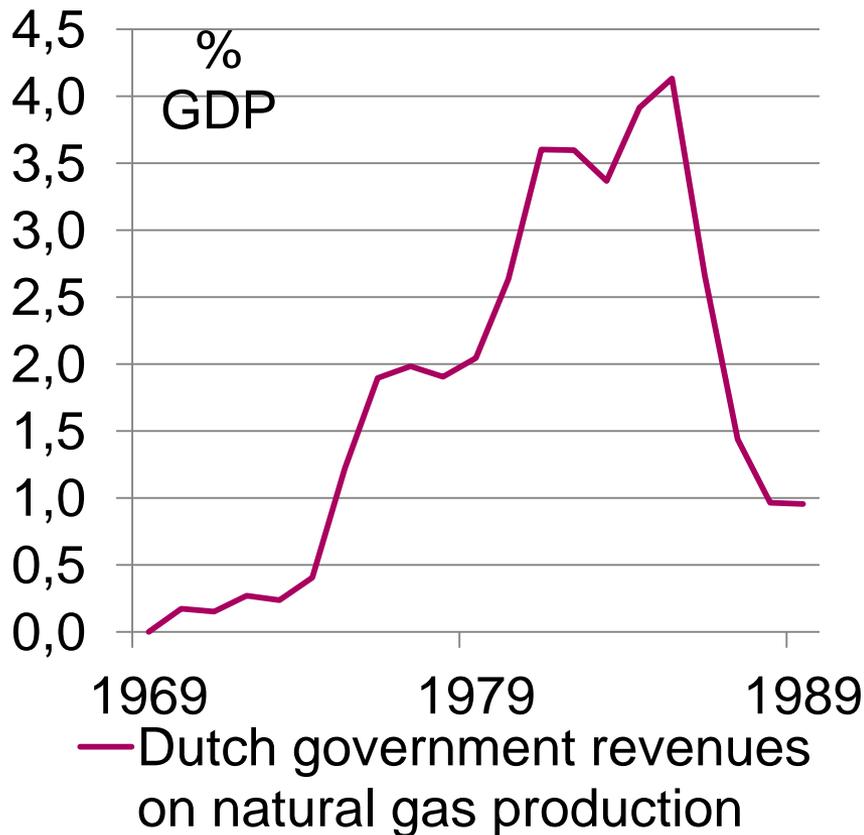


Dutch government revenues on natural gas production, 2013





Around 1980 heyday of the Dutch disease





Hotelling (1931) still relevant

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THE ECONOMICS OF EXHAUSTIBLE RESOURCES

I. THE PECULIAR PROBLEMS OF MINERAL WEALTH

CONTEMPLATION of the world's disappearing supplies of minerals, forests, and other exhaustible assets has led to demands for regulation of their exploitation. The feeling that these products are now too cheap for the good of future generations, that they are being selfishly exploited at too rapid a rate, and that in consequence of their excessive cheapness they are being produced and consumed wastefully has given rise to the conservation movement. The method ordinarily proposed to stop the wholesale devastation of irreplaceable natural resources, or of natural resources replaceable only with difficulty and long delay, is to forbid production at certain times and in certain regions or to hamper production by insisting that obsolete and inefficient methods be continued. The prohibitions against oil and mineral development and cutting timber on certain government lands have this justification, as have also closed seasons for fish and game and statutes forbidding certain highly efficient means of catching fish. Taxation would be a more economic method than publicly ordained inefficiency in the case of purely commercial activities such as mining and fishing for profit, if not also for sport fishing. However, the opposition of those who are making the profits, with the apathy of everyone else, is usually sufficient to prevent the diversion into the public treasury of any con-

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- So:
 - a higher gas price in the future means lower production now.
 - lower risk-free interest rate means lower production now
- (A bit more complicated if speed of exploitation influences total gas production)



The public finance economics of natural resources is very simple

- The intertemporal budget constraint:
 - Discounted value (government outlays) = Discounted value (government revenues)
- If $Dv(\text{outlays}) > Dv(\text{revenues})$ than government debt explodes.
- So, you may have to reduce outlays now given drop in natural gas revenues later.
- Fairness between generations play a role in intertemporal decisions.



But the public economy is complicated

- Clever rules (sovereign wealth funds etc.) can reduce myopic behaviour of politicians.
- But not totally. Politicians can change the rules.
- Good rules make the political costs of changes high. Changes should be highly visible.





Fund for strengthening of economic structure (FES)

- funded with (part of) gas revenues (as of 1993)
- aim was use natural reserves for investments that also benefit later generations and protect government investments
- operationalisation: “additional” investment in “economic structure”
 - no crowding out of existing investments
 - infrastructure, telecom, renovation in large cities
- later on:
- various extensions of scope: environment, education, innovation (1997, 2007)
- introduction of “fes-bridge” which allowed transfer of funds to regular budget to fund planned investments (1998)



Drawbacks

Allocation sub-optimal:

- Partial decision making: alternative uses of funds are restricted
 - Hence, sub-optimal investment projects funded because “the money is there”...
 - ...and investments with positive cost-benefit elsewhere in the budget are not carried out
- As a result politicians start to extend scope (education etc) and change rules in order to enlarge alternative uses of funds

Conflicts with other fiscal policy goals:

- Procyclical as gas revenues and investments increase in booms and decrease in busts
- Problems with fiscal framework (fiscal rules limit room for additional investments)



Tips

If you want a fund:

- Concentrate on the political economy
- Difference between real SWF and fake SWF (FES)
- Real SWF tackles political economy problem better
 - Do research on the Norwegian example (and the Alaska example)
 - If you are planning to introduce a sovereign wealth fund, do it early
 - Choose a good name of your sovereign wealth fund (Pension fund is a much better name than Petroleum Fund)

Regardless of link with substantial natural resources:

- Do regularly a sustainability analysis. Is there a sustainability gap?
- Do cost-benefit analysis of large public investments