Fiscal Sustainability Analysis in Denmark

OECD, Paris, April 11-12 2016

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Agenda

1. Short Presentation of the Danish Fiscal Policy Framework
   - Primarily background
2. Fiscal Sustainability Analysis at the Danish Economic Councils
3. Some Important Issues and Lessons
   - Possible Relevance for the Guidelines

The Danish Case

From ”sliding on a slippery slope” to sustainable

- Public finances used to be in poor shape
  - Long-term projections led to introduction of collective labour market pensions
  - Medium-term plans (looking approx. five years ahead)
  - 2006: Broad political agreement – the “Welfare Agreement”
    - Indexation of pension age with longevity (old age pension age in 2050: **72** years)
  - 2011: Revision of Welfare Agreement
    - Additional and earlier increase in effective pension ages
  - 2014: National Budget Law
    - Structural deficit below ½ per cent of GDP
    - Expenditure ceilings (four years)
    - Sanctions on municipalities exceeding agreement with government on taxes and expenditures
    - Independent watch dog: *Danish Economic Council*

- Result
  - Public finances are now fundamentally sound and fiscal policy is sustainable
  - Economic policy apparently credible (AAA-rating)

The Fiscal Policy Framework in Denmark

A hierarchy of goals

- Fiscal sustainability is the overarching goal
  - Fiscal policy should be sustainable in end year of medium term plan
  - Translates into an operational requirement for the budget in the end year (currently balance in 2020)
- Budget must comply with EU and national rules
  - 3 per cent for actual budget (standard EU-rule)
  - ½ per cent for structural budget (national law)
- Expenditure ceilings are set for four years
  - Expenditure ceilings that covers public consumption, subsidies and most transfers
  - Do NOT cover: Public investments, expenditures related to unemployment
- Restrictions on debt is not relevant in practice
  - Initial net debt low – and given expected path of the deficit, debt will not rise significantly

Fiscal Sustainability Analysis

Based on dedicated CGE model

- CGE model Developed with Sustainability Analysis in Focus
  - Large-Scale CGE-model, DREAM (developed in mid 1990'ies)
    - Small open economy, OLG, rational and forward-looking agents
  - Focus on public finances and detailed description of demographics (and pensions)

- No less than 3 Assessments of Fiscal Sustainability in Denmark
  - DREAM modelling unit publishes its own independent assessment
  - Danish Economic Council use the DREAM model, but bases its assessment on its own projection and assumptions
  - Ministry of Finance make sustainability analysis outside the model, but base to a large extent assumptions and methodology on the DREAM-model

The Fiscal Sustainability Analysis

At the Danish Economic Councils

- Short- and medium-term forecast
  - Currently 2025
    - Output gap, employment gap and unemployment gap closed
    - Macro economy “back on trend” (interest rates, capital/labour-ratio, savings ratio…)
  - Fiscal policy assumptions
    - Based on legislation passed by Parliament (including expenditure ceilings)
    - “Neutral” public expenditures (after years covered by the ceilings)
  - Results in a full assessment of the economy and the public debt and net lending in 2025
- CGE model “recalibrated” to replicate this medium term scenario
  - Long term “BAU”-projection from here
    - Taking demographics, maturing pension schemes etc. into account
    - BAU- and neutrality assumptions basically the same as in the medium term forecast
    - Sustainable or not? Calculate the required (permanent) change in the primary balance to stabilize the debt (in percent of GDP) – that is calculate the S2-indicator
    - … given demography, extraction of natural resources, current policy, “neutral assumptions” and the continuation of relevant (macro)trends

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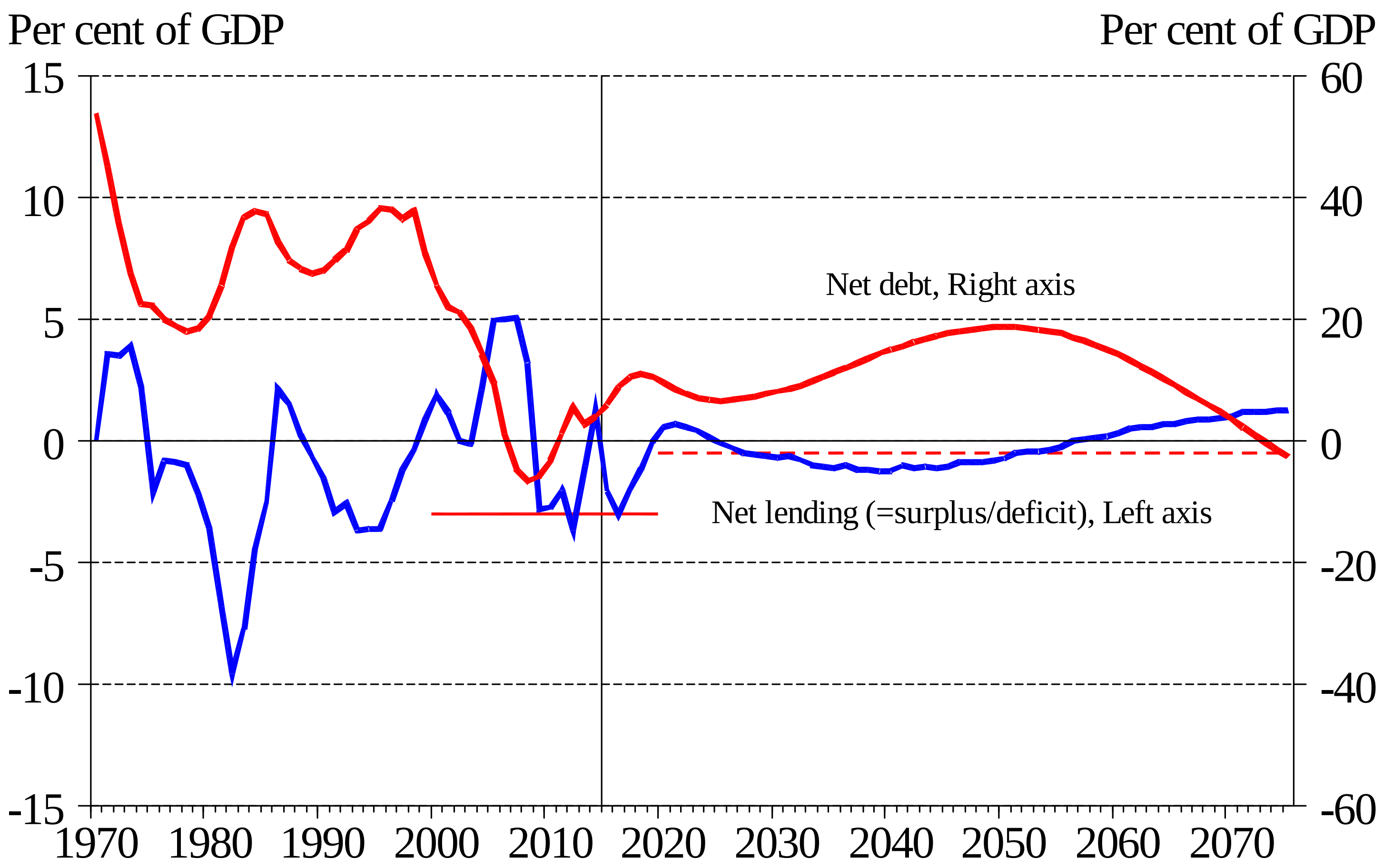
Public Finances in Denmark

Fiscal policy is sustainable, but (structural) deficit exceeds ½ per cent



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The Fiscal Sustainability Analysis

Prerequisites and assumptions

- Basic demographic projection
  - Including assumptions on future developments in mortality and fertility – and migration
- Detailed information on
  - Individual public consumption by age (and sex)
  - Labour market participation rates by age (and sex)
  - Take-up rates for public transfers by age (and sex)
  - Institutional setup (the tax system (including tax bases) and transfer system)
- Macro economic assumptions
  - Structural levels for unemployment, labour force, wage share, consumption ratio, capital-labour ratio… (some "exogenous", some determined by the model)
  - Behavioral parameters (primarily of interest when creating alternative scenarios)

Clear Definition of Sustainability is Essential

- S2-indicator is a good choice
  - A measure of solvency – over the infinite horizon
  - One problem is that the far future can weigh heavy..
- Does NOT restrict the debt level
  - Need to address maximum (net/gross) debt levels
- Does NOT restrict the deficit
  - Need to check path of deficit for breaking EU-rules (or financial markets thresholds)
- Basic projections vs. restricted (ie sustainable) projections
  - If fiscal policy is unsustainable
    - Which instrument and what timing?
      - In the Danish case: Permanent Lump sum transfer now…
    - Cost of postponing can be important to illustrate…
    - Cost of using distortionary taxes (or cuts) important
    - Degree of unsustainability can be illustrated be the required increase in the labour force

Fiscal Policy (Neutrality) Assumptions

And other issues need to be addressed

- Nominal aspects of the tax or transfer system
  - Indexation of transfers and tax system (should be indexed to wages irrespectively of formal rules)
  - Excise duties specified as € per liter, per kilo … (should be indexed to inflation)
- Public consumption
  - Individual Consumption: Expenditure relative to GDP held constant per user
  - Collective Consumption: Expenditure set to follow nominal GDP (or population+wages)
- Public investments
  - Capital stock - and hence public investments - should be linked to production in public sector; indirectly linked them to demographics
- Other important (difficult) issues
  - Political statements of intent (eg. cut back on investments, foreign aid, "reforms")
  - Trend in working hours (should probably be disregarded)
  - Differences in productivity/relative prices…
  - Handling implicit guaranties, risks …