ECFIN Pilot exercise
Impact Assessment Structural Reforms 2013+2014 NRPs: IT, ES, CZ, DK

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ECFIN impact assessment structural reforms

- Model-based assessment (QUEST model - R&D version)
- Translate actual measures into model shocks
- Pilot exercise: Italy, Spain, Denmark, Czech R.
- Based on measures in 2013 and 2014 National Reform Programmes (NRPs)
Advantages of model-based analysis

- Direct link between reform shock and impact channel (e.g. tax variables)
- General equilibrium (feedback effects)
- Demand effects
- Dynamic effects
- Wider macroeconomic impact (employment, trade, budget)
The QUEST III R&D model

Final Goods

Intermediate Goods

Entrants

Mark up

Credit frictions
Tangibles

Credit frictions
Intangibles

Research

Subsidies

Government

Structural indicators in QUEST model

- Mark-ups
- Entry costs
- Implicit tax rates (labour, consumption, capital)
- R&D tax credits
- Shares of low-, medium-, high skilled workers
- Participation rates (females, 55+, low skilled)
- ALMP
- Unemployment benefit generosity
Example: Closing half the gap with best performers

- Potentially large GDP effects if each MS closes half the gap vis-à-vis best performers:
  - GDP after 5 years: EU +3½% < SE +1% ; EL +5% >
  - GDP after 10 years: EU +6½% < SE +2% ; EL +10% >

- Effects take time to materialise
  - Effects of tax shift relatively fast
  - Labour market reforms (participation↑) slower
  - Innovation and education slowest

- Productivity effects of labour market reforms can be negative in short run (but large employment effects).

Source: Varga and in 't Veld (2014)
Translation of actual reform measures onto structural indicators:

**'direct': e.g.**
- unemployment benefit generosity: calculate impact of measure on net replacement rate, or
- tax changes; calculate changes in implicit tax rates

**'indirect': relying on intermediate indicators, e.g.**
- calculate impact of reform measure on PMR indicator and translate that into mark-up shock, or
- calculate impact of measure on EPL, and translate that into productivity shock
Product market reforms

Directly mapped into QUEST:

- Reduction of cost of starting a business: impact through entry costs
- Simplification of admin framework: impact through overhead labour

Indirect translation:

- Sectoral product market deregulation: change in PMR => mark-up shock (Thum-Thysen&Canton 2015)
- Other efficiency-enhancing reforms: impact through productivity
Translation of Labour Market Reforms

- Unemployment benefits: Net replacement rate
- ALMPs: Spending
- Reforms affecting activity rate (e.g. reforms of disability benefits, maternity benefits, availability of childcare)

Translation based on:
  - Plausible estimates by national authorities (if available)
  - Alternative: "back-of-the envelope", or not able to assess

Reforms of Employment Protection Legislation (EPL):
  1. Reform => OECD indicator of EPL (regular contracts)
  2. Effect on productivity: based on an OECD estimation

Education reforms: projected effects on attainment (not in pilot)

Reforms of wage-setting institutions (not in pilot)

Approach would be in two steps (like for EPL):
  1. Reform => Indicators (level and coverage of wage bargaining)
  2. Effect on wages: based on a Commission estimation
Structural reforms at ZLB

ZLB: AD curve upward sloping

Downward shift AS curve can be contractionary (B)

But: AD curve can shift to right (C):
- profitability of investment,
- disposable income of liquidity-constrained households and
- competitiveness effect in external trade.

The question which effect dominates is ultimately quantitative.

- In QUEST, negative effects are small and temporary (Vogel, 2014)
- Not all reforms are deflationary
Italy: GDP impact 2013/14 NRP measures

2012-13:
- Labour market reform (GDP +0.10)
  Decrease EPL/AMPL increase
- Simplification (+0.13)
  Cut in overhead labour costs
- Tax reform (+0.04)
  Increase in VAT/reduced ITL
- Liberalisation professional services/unbundling (+0.09)
  Mark up reduction

2014:
- Public administration (0.04)
  Reduction overhead labour costs
- Tax reform (0.4)
  Reduction IRPEF (€ 80)/IRAP (labour)/
  ACE vs. VAT/capital taxes

2020:
GDP +0.8%, Empl. +1.2%, Gov bal -0.3pp

Cfr. Italy closing half gap vs 'best performers'
GDP +3.9%
Spain: GDP impact 2013/14 NRP measures

- Pension reform (+0.24 by 2020)
  Higher retirement ages and longer contributory periods for early and partial retirement & pension sustainability factor

- Market unity law (+0.2)
  Principles of non-discrimination & single licence in product markets; Mechanisms for conflict resolution

- Retail reform (+0.21)
  Opening hours, sales & licencing procedures

- Reform unemployment benefits (+0.3)
  Lower benefits after 6 months

- Tax reform (0.1)
  Cuts in CIT, increase in VAT

2020:
GDP +1.1%, Empl. +1.2%, Gov bal +2.5pp

Cfr. Spain closing half gap vs 'best performers'
GDP +3.2%
Denmark and Czech Republic

- Disability pension and flexi-job scheme
- Tax reform (Growth Plan DK)
- Network sector reform (Growth Package)

2020: GDP +1%
(Cfr. Closing half gap: 2.2%)

- ALMP
- Business registration reform
- Public administration reform

2020 GDP +0.4 %
(Closing half gap: 3.6%)
Summary

- GDP effects sizeable - can add up to 0.2 pp to potential growth rates over 5 years

- But potential GDP effects from structural reforms based on closing half the gap with best performers are much larger (2% to 4% by 2020)

- Progress made, but further efforts are needed.

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<tr>
<th>GDP</th>
<th>2020</th>
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<tr>
<td>Italy</td>
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<tr>
<td>Spain</td>
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<tr>
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<td>Czech Republic</td>
<td>0.4</td>
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**Quantification is a challenging task**

- Not all measures are easily quantifiable: 1/3 (23 out of 60) not assessed
  - deemed insignificant,
  - not clear how the macroeconomic impact of the reforms, if any, could be quantified.

- 'Translation' of reform measures into quantifiable changes in structural indicators is surrounded by large uncertainties:
  - (in)direct quantification of the measures,
  - assumed implementation speed
  - robustness of empirical estimates on which the assessment had to rely.

- Sensitivity to certain model assumptions: e.g. fiscal and monetary policy assumptions, compensatory payments, etc.

=> Estimates are surrounded by large uncertainties and should be interpreted with caution.
THANK YOU

For model references, see:
http://ec.europa.eu/economy_finance/research/macroeconomic_models_en.htm
Extra slides
Example of translation exercise; Retail reform in Spain

- Spanish reform to simplify opening of small retail enterprises in 2012
- Retail PMR after the reform is 2.88 (i.e. the published number for 2013)
- "Backward engineering" of the PMR using the questionnaire behind the PMR yields a PMR before the reform of 3.61
- This change in PMR is estimated to decrease mark-ups in retail from 14.3% to 11%