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Monitoring and Measuring the Impact of Structural Reforms: Italy's experience

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MINISTERO DELL'ECONOMIA E DELLE FINANZE

LIME at work

- Used available database developed by the **Lisbon Methodology WG** (LIME).
- Analysed Italy's performance against EU15 countries in a **simple framework** (although, of course, there are caveats).
- Linked GDP growth components to **structural indicators** on policy areas of reform through a mapping exercise.
- Compared results with **policy objectives and recommendations**.



Lisbon Assessment Framework (LAF)

Policy areas -- Aggregate scores for IT	IT		PT	
	Level	Change	Level	Change
Labour Market				
Active labour market policy area	-3	7	1	-8
Making work pay: interplay of tax and benefits system	4	3	-6	-6
Labour taxation to stimulate labour demand	-6	-8	4	-6
Job protection and labour market segmentation / dualisation	-1	5	-5	2
Policies increasing working time	2	-8	4	8
Specific labour supply measures for women	-2	0	1	-5
Specific labour supply measures for older worker	-4	3	-2	-5
Wage bargaining and wage setting policies	-10	6	11	3
Immigration and integration policies	6	-12	1	-14
Labour market mismatch and mobility	11	11	9	1
Product and Capital market				
Competition policy framework	1	-2	6	-0
Sector specific regulation (telecom, energy)	1	3	-6	-1
Business environment - Regulatory barriers to entrepreneurs	-11	-1	-0	9
Business Dynamics - Start-up conditions	-4	-5	-1	11
Financial markets and access to finance	-	-	-	-
Market integration - Openness to trade and investment	-4	2	0	1
Innovation and knowledge				
R&D and innovation	-7	7	-11	18
ICT	-7	-6	2	-4
Education and life-long learning	-2	0	-10	14



Lisbon Assessment Framework (LAF) (cont'd)

- Italy's and Portugal's **position in level** are below the European average, but there are improvements in terms of changes.
- **Labour market: positive signs of improvement** in wage bargaining, protection and labour market segmentation/dualisation, making work-pay, ALMPs, older workers' labour supply, and labour market mismatch. PT performs worse than IT.
- **Labour market: negative performance** for policies aiming at increasing working time, immigration and integration, policies for taxation aimed at encouraging labour demand. PT performs in line with IT except for policies increasing working time.



Lisbon Assessment Framework (LAF) (cont'd)

- **Product markets:** broadly in line with the European average, with some weaknesses in policies to promote competition and a favourable business environment (barriers to entrepreneurship, start-ups). Some progress in sector specific regulation and in market integration. PT shows a relevant improvement for business environment and a slight deterioration for sector specific regulation.
- **R&D, innovation and human capital:** improvement in R&D, worsening in ICT with a persistent gap with respect to EU15. Education and life-long learning still in line with the benchmark. The same situation is in PT.



Growth accounting

Relative performance of GDP components vis-à-vis the EU-15 - 2009

	IT		PT	
	Level	Growth	Level	Growth
Demographic components	-6	-2	-8	-2
Fertility / Native Population	-10	-6	-13	-1
Share of foreign population / Net Migration	-4	6	-16	-3
Share of Working age Population	-5	-11	7	-1
Labour market components	4	7	29	-13
Youth Participation	-15	-21	-7	-9
25-54 Male Participation	-17	3	-1	16
25-54 Female Participation	-21	7	8	7
55-64 Participation	-14	5	3	-16
Unemployment Rate	4	14	-2	-16
Average Hours Worked	11	-6	22	17
Labour productivity components	-8	-19	-30	-1
Capital Deepening	-4	-8	-30	14
Total Factor Productivity	-4	-17	-30	-11
Initial education of labour (Labour quality)	-18	0	-30	15
GDP per capita (level) / GDP (growth)	-8	-13	-29	-8

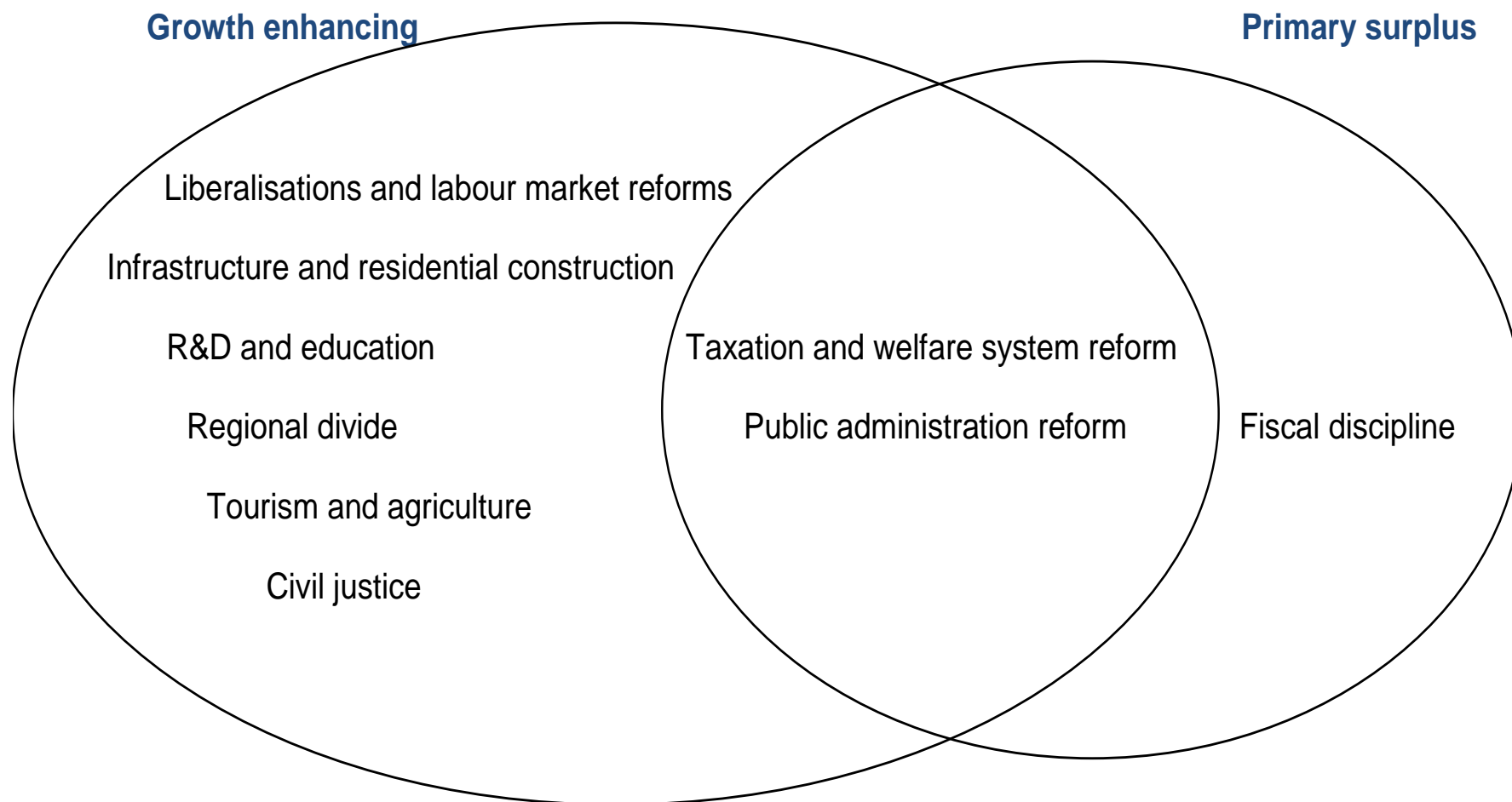
Source: European Commission, LAF Database

Growth accounting (cont'd)

- In 2001-09, IT and PT GDP growth were on average **below EU15**. PT shows a bigger gap than Italy.
- **Low productivity** in IT is largely due to low **TFP growth** and, to a lesser extent, to a small contribution by **capital deepening** and **labour quality** (measured by the initial level of education of the workforce). This might incorporate also certain structural aspects due to specialisation in MLT products. In PT TFP is worse in terms of levels but with better dynamics.
- Young people's **participation** rate growth is weak both in IT and in PT, while average hours worked performs better in PT.



A strategy for growth and fiscal consolidation: NRP priorities



2011 National Reform Programme

- **Large number of actions** to address the key policy issues identified by the European Commission in the **Annual Growth Survey**.
- Actions aiming at achieving the national targets of the **Europe 2020 strategy**.
- Actions to overcome **bottlenecks** that are an impediment to GDP growth.
- Measures consistent with the coordination of economic policies resulting from **Euro Plus Pact**.



Evaluation of macroeconomic impact of reforms

- Quantitative assessment of the **macroeconomic impact** of reforms for a number of areas of intervention.
- Evaluating (gross and net) gains from reforms in terms of **output, employment, consumption and investment growth** using both the **QUEST III** model with endogenous growth calibrated for Italy and the **ITEM** model.
- **Specific shocks** for measures **aggregated** into policy areas, in order to gauge the effects on macro aggregates. **Size of the shocks and multipliers** are in line with similar simulation exercises performed by the European Commission.



ITEM and QUEST shared multipliers

Multiplier of GDP: simulations performed with the ITEM model

	2015	2020	2030	Size	Weight
Reduction of unit labour cost	0,3	0,6	0,6	1%	0,5
Reform in the pension system	0,1	0,5	0,5	1% GDP	1
Increase of transfers to production	0,7	0,5	0,7	1% GDP	0,1
Increase of tax base of social security contributions	0,1	0,5	0,4	1% Employees	1
Reduction of wage mark-up	0,4	0,4	0,5	1%	0,5
Increase of productivity of public administration	0,1	0,1	0,1	1%	1
Increase of investment subsidies	0,3	0,1	0,3	1% GDP	0,1

Multiplier of GDP: simulations performed with the QUEST model

	2015	2020	2030	Size	Weight
Reduction of wage mark-up	0,3	0,3	0,4	1%	0,5
Increase of labour productivity	0,4	0,7	0,8	1%	0,5
Removal of barriers to entry	0,2	0,2	0,2	1%	1
Reduction of administrative burden	0,4	0,5	0,5	10%	1
Tax credit for researchers	0,1	0,2	0,3	0,1% GDP	2
Reduction cost for intangible assets	1	0,2	0,5	50 pb	1

IMPACT OF THE MEASURES OF NRP BY AREAS OF INTERVENTION (percentage deviations from the baseline scenario)

ID(*)	Area	Measure	Description		2014	2017	2020
1, 2, 3, 4, 5, 6, 7,8,9, 10	Employment and pensions	Savings in pension expenditure, measures on wage bargaining, development of productivity, policies to increase employment	Change in requirements for access to pensions, reduction of wage mark-up, increase of labour productivity, increase of transfers to firms, extension of social security contribution tax base, reduction of ULC	GDP	0.6	1.2	1.6
				Consumption expenditure	0.4	0.7	1.4
				Gross capital formation	0.3	0.3	2.1
				Employment	1.1	1.5	1.8
18, 19, 21, 31, 32, 34, 39, 41	Product market, competition and administrative efficiency	Competition and the opening of markets, improvement in the entrepreneurial environment, reduction of social security contributions, administrative efficiency and simplification	Removal of barriers to entry, reduction of goods mark-up, increase of productivity of public administration, reduction of ULC, reduction of administrative burden	GDP	0.8	1.0	1.0
				Consumption expenditure	0.5	0.6	0.7
				Gross capital formation	0.4	1.1	1.1
				Employment	0.0	0.2	0.3
45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 67, 68, 71	Innovation and human capital	Improvement of human capital, tax incentives to research, stimulation of investments in R&D	Tax credit for researchers and reduction of cost for intangible assets	GDP	0.1	0.2	0.4
				Consumption expenditure	0.3	0.4	0.4
				Gross capital formation	-0.1	0.0	0.1
				Employment	0.1	0.1	0.1
63, 64, 65, 66, 76, 78, 79, 80, 81, 82	Business support	Strategic projects and interventions to promote production and research activities	Reduction of cost for intangible assets, reduction of administrative burden, increase of investment subsidies	GDP	0.1	0.2	0.2
				Consumption expenditure	0.0	0.0	0.1
				Gross capital formation	0.6	0.7	0.7
				Employment	0.0	0.0	0.0

(*) The numbers reported in column ID match the numbers of the measures in the grid included in the Appendix.



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Sequencing of reforms

- **Liberalisation effort** in several sectors: retail, professional services, banking, public services, pharmacies, etc. More power to the Competition Authority.
- **First reforms in product market, then in the labour market.**
- **Product market:** retail (oil, pharmacies), energy, financial intermediaries, postal services, local public utilities, infrastructure, transport services taxi licensing and again professional services.
- **Labour market:** exit flexibility, a single contract, social, a generalised social safety net.



Why this sequencing?

- **Weakened workers** are less in favour of heavily regulated goods and services markets.
- Italy has budgetary problems, so **budget-neutral reforms** should be preferred in the first stage. By contrast, labour market measures will inevitably imply some more spending.
- **Liberalising regulated sectors** reduce the size of total rents distributed through the bargaining power to employers and workers.
- Trade unions and employers want deep, time consuming, social dialogue: partly inevitable, partly avoidable.



Why several sectors at the same time?

- The **benefits** from the combined effect of a simultaneous reform of several sectors are greater than the sum of the benefits from each individual sector.
- **Partial equilibrium effect** would imply resistances to reforms if the deregulated part of the economy is small.
- Affected employers and employees do not perceive themselves as **unjustly persecuted**.
- **Asymmetric information** and not economic concerns pose tradeoff problems which usually imply moving from one regulation to another.



Impact of reforms

- Alternative reform scenarios: **exploring the potential impact** of reforms on macroeconomic performance by simulation.
- Three wide policy areas of intervention: **innovation and knowledge, internal market and labour market.**
- **Implications of the economic reforms:** simultaneous changes to policy variables are studied to explore the interlinkages and the synergies between different policy areas.
- **QUEST III with R&D.** The model, calibrated to quarterly data, features eight types of economic agents. Adjustment costs on nominal and real variables.



Impact of reforms (cont'd)

- To quantify the effects of structural reforms in the three policy areas of interventions we build **four reform scenarios**:
 - (A) A moderate reform ex-ante budget-neutral scenario.
 - (B) A moderate reform scenario.
 - (C) A substantial reform ex-ante-budget-neutral scenario.
 - (D) A substantial reform scenario.
- Reforms in each area are first simulated separately and then simultaneously.



Impact of reforms (cont'd)

		Scenario A		Scenario B		Scenario C		Scenario D	
Degree of gradualism		5 yerar	10 years	5 yerar	10 years	5 yerar	10 years	5 yerar	10 years
Income	Knowledge and innovation	0.19	0.17	0.65	0.65	0.40	0.35	1.16	1.18
	Internal market	1.31	1.18	1.31	1.18	3.30	2.97	3.30	2.97
	Labour market	2.21	1.92	2.21	1.92	3.85	3.37	3.85	3.37
	Sum of the effects	3.71	3.27	4.17	3.75	7.55	6.69	8.31	7.52
	Simultaneous implementation	3.74	3.29	4.46	4.00	7.63	6.74	8.54	7.69
Investments	Knowledge and innovation	0.53	0.51	0.75	0.79	1.06	1.02	1.47	1.56
	Internal market	1.99	1.82	1.99	1.82	7.34	6.86	7.34	6.86
	Labour market	1.33	0.99	1.33	0.99	2.32	1.76	2.32	1.76
	Sum of the effects	3.85	3.32	4.07	3.60	10.72	9.64	11.13	10.18
	Simultaneous implementation	3.89	3.34	4.24	3.70	10.88	9.72	11.31	10.28
Consumption	Knowledge and innovation	0.03	0.01	0.06	0.08	0.11	0.07	-0.03	0.02
	Internal market	0.78	0.68	0.78	0.68	1.10	0.88	1.10	0.88
	Labour market	1.64	1.44	1.64	1.44	2.85	2.51	2.85	2.51
	Sum of the effects	2.45	2.13	2.48	2.20	4.06	3.48	3.92	3.41
	Simultaneous implementation	2.44	2.13	2.73	2.43	3.97	3.38	4.03	3.51
Employment	Knowledge and innovation	0.00	0.00	0.31	0.32	0.00	0.00	0.62	0.63
	Internal market	-0.08	-0.06	-0.08	-0.06	-0.09	-0.06	-0.09	-0.06
	Labour market	2.88	2.60	2.88	2.60	4.95	4.51	4.95	4.51
	Sum of the effects	2.80	2.54	3.11	2.86	4.86	4.45	5.48	5.08
	Simultaneous implementation	2.82	2.55	3.45	3.17	4.91	4.49	5.49	5.09
Real wage	Knowledge and innovation	0.19	0.16	0.24	0.22	0.42	0.37	0.24	0.23
	Internal market	0.67	0.75	0.87	0.75	2.30	1.99	2.30	1.99
	Labour market	-1.26	-1.22	-1.26	-1.22	-2.08	-2.07	-2.08	-2.07
	Sum of the effects	-0.20	-0.31	-0.15	-0.25	0.64	0.29	0.46	0.15
	Simultaneous implementation	-0.22	-0.32	-0.28	-0.38	0.56	0.23	0.72	0.40



Impact of reforms (cont'd)

- Structural reforms could help to **boost income** with respect to the initial steady state.
- The major contribution from **labour market** reforms boosting income up in scenario D through a higher employment rate.
- The measures aimed at promoting the **internal market** induce an increase in income.
- The reforms in the policy area of **knowledge and innovation** have modest impact since they materialise in the very long run.
- **Internal market policies** seem to play an important role in explaining the increase in investments on tangible capital.



Impact of reforms (cont'd)

- **Aggregate consumption** would increase, especially for liquidity constrained households.
- **Employment** is strongly and positively affected by all the labour market interventions.
- **Wage moderation** determines an alignment of wages to productivity trends; fiscal reforms aimed at narrowing the labour tax wedge reduce fiscal distortions.

