MAIN RESULTS OF THE JOINT OECD-EC PROJECT:

Indicators of unemployment,inactivity and low-wage traps

Giuseppe Carone

DG ECFIN-European Commission

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Indicators and Policies to Make Work Pay
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OUTLINE

- **Main features of the Joint EC-OECD Project**
  - ***-Family « types »***
  - ***-Components of the calculation***
  - ***- Analytical formulation***
- **Model results and indicators of financial incentives to work (METRs and NRRs)**
  - ***Indicators of the transition from work to unemployment***
  - ***Indicators of the transition from unemployment to work***
- **Major strengths and weaknesses of METR indicators**

MAIN FEATURES OF THE JOINT *EC-OECD* TAX-BENEFIT PROJECT

- **BASIS OF THE CALCULATION:**
  Legal rules that in each country for each household

- **SIX « TYPICAL » HOUSEHOLDS**

Family composition	Children	Earnings as % of the APW
1- Single	0	0-200
2- One Earner Couple	0	0-200
3- Two Earner Couple	0	1st: 67 + 2nd: 0-200
4- Lone parent	2	0-200
5- One Earner Couple	2	0-200
6- Two Earner Couple	2	1st: 67 + 2nd: 0-200

- ***STANDARD ASSUMPTIONS*** : - adults are 40 years old
  - children are aged 4 and 6

- **UNIT OF MEASURE**

APW : (average wage of a full-time production worker in manufacturing sector)

MAIN FEATURES OF THE JOINT *EC-OECD* TAX-BENEFIT PROJECT : Components of the calculation

☑ ***Earnings*** *(Gross wages) (GI)*

☑ ***Income Taxes (IT)***

☑ ***Social Insurance Contributions*** *(paid by employees or benefit recipients)* ***(SSC)***

(but calculation possible also with employers'SSC)

☑ ***In-work tax credit*** *(employment-conditional tax credits)* ***(IWB)***

☑ ***Family Benefits*** *(including employment-conditional benefits where they are family related)* ***(FB)***

☑ ***Social Assistance benefits*** *(minimum income support, and other kind of last-resort safety nets)* ***(SA)***

☑ ***Housing Benefits*** *(normally including any strictly housing related parts of minimum income programs.* ***(HB)***
All accommodation is assumed to be rented. Housing rent is assumed to be constant at 20% of the averag production worker wage level

☑ ***Unemployment Benefits*** *(including both unemployment insurance & unemployment assistance)* ***(UB)***

☹ ***NOT INCLUDED:*** ***Disability benefits, childcare costs and childcare services, (voluntary and old-age) pension payments as well as any income from capital***

A set of indicators based on METRs (Marginal effective tax rates)

METR= A m*easure of what part of any additional earnings is "taxed away" through the combined effects of higher tax and lower benefit*

⇨ *METR used to calculate 3 potential traps related to LM transition*

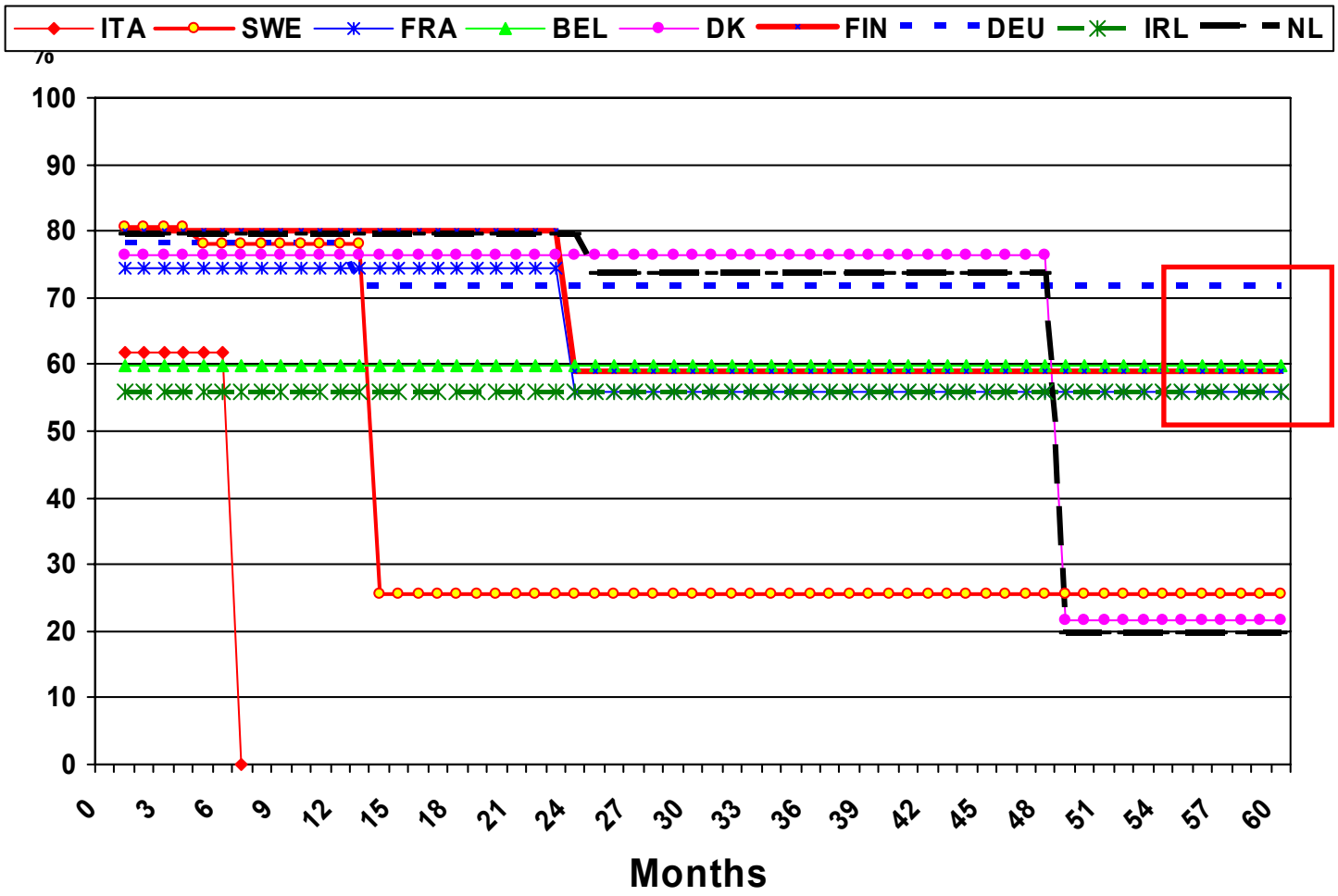
TRAPS"	INDICATORS	LM TRANSITION
1) Low-wage trap	$METR_{lw}$	From low to higher wage
		From part-time to full time
2) Inactivity trap	$METR_{it}$	From inactivity to work
3) Unemployment trap	$METR_{ut}$	From unemployment to work ⇆
+ (Net Replacement Rate)	(NRR)	From work to unemployment

☞ All types of METR are calculated in the same way

NRR: TIME –PROFILE over 60 months

One Earner couple with 2 children (100%APW)

NRR



NRR at 60

DE=72

AT=70

BE=60

FIN=59

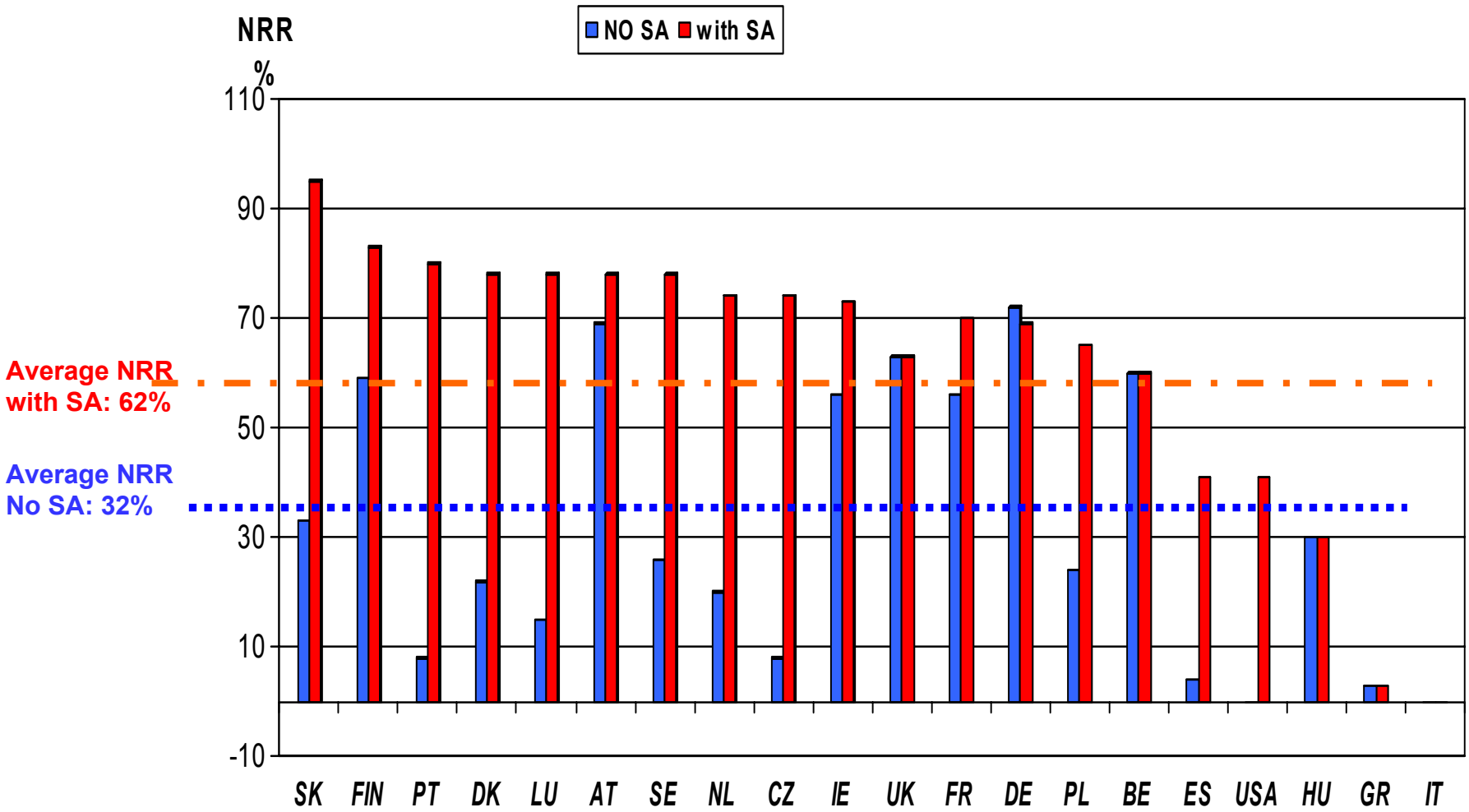
FR=55

IE=55

Long-Term Unemployment: NRR after 5 Years

One earner couple with 2 children- average wage (100% APW)

(Entitled and not entitled to social assistance)



METR CALCULATION

⇨ Calculate for each of the 2 labour market states A, B :

ΔGE = the "additional earnings" (Δ Gross earnings)

(usually 1% of APW, but can be higher)

ΔNDI = the change in disposable income, after taxes and benefits

⇨ $$METR = 1 - \frac{\Delta \text{ (net) Disposable Income}}{\Delta \text{ Gross earnings}} \quad \text{or} \quad 1 - \left(\frac{\Delta ynet}{\Delta ygross}\right)$$

☞ **Disentangling the contribution of each component of METR**

$$METR = \frac{\Delta IT + \Delta SSC - \Delta \text{ in HB} - \Delta FB - \Delta SA}{\Delta GE}$$

$$METR = \sum \text{(Marginal tax rate \& Benefit (withdrawal) rate)}$$

A POLICY RELEVANT APPLICATION
A measure of disincentives to work for the spouse

Does Work pay for the second earner?

Is there a risk of inactivity trap or unemployment trap for: 2nd earner?

How to measure it ?

- **Calculate the METRs on household income for the transition from unemployment /inactivity to work of the 2nd earner**

  (for a wide range of entry-wage levels)

Family composition and LM status

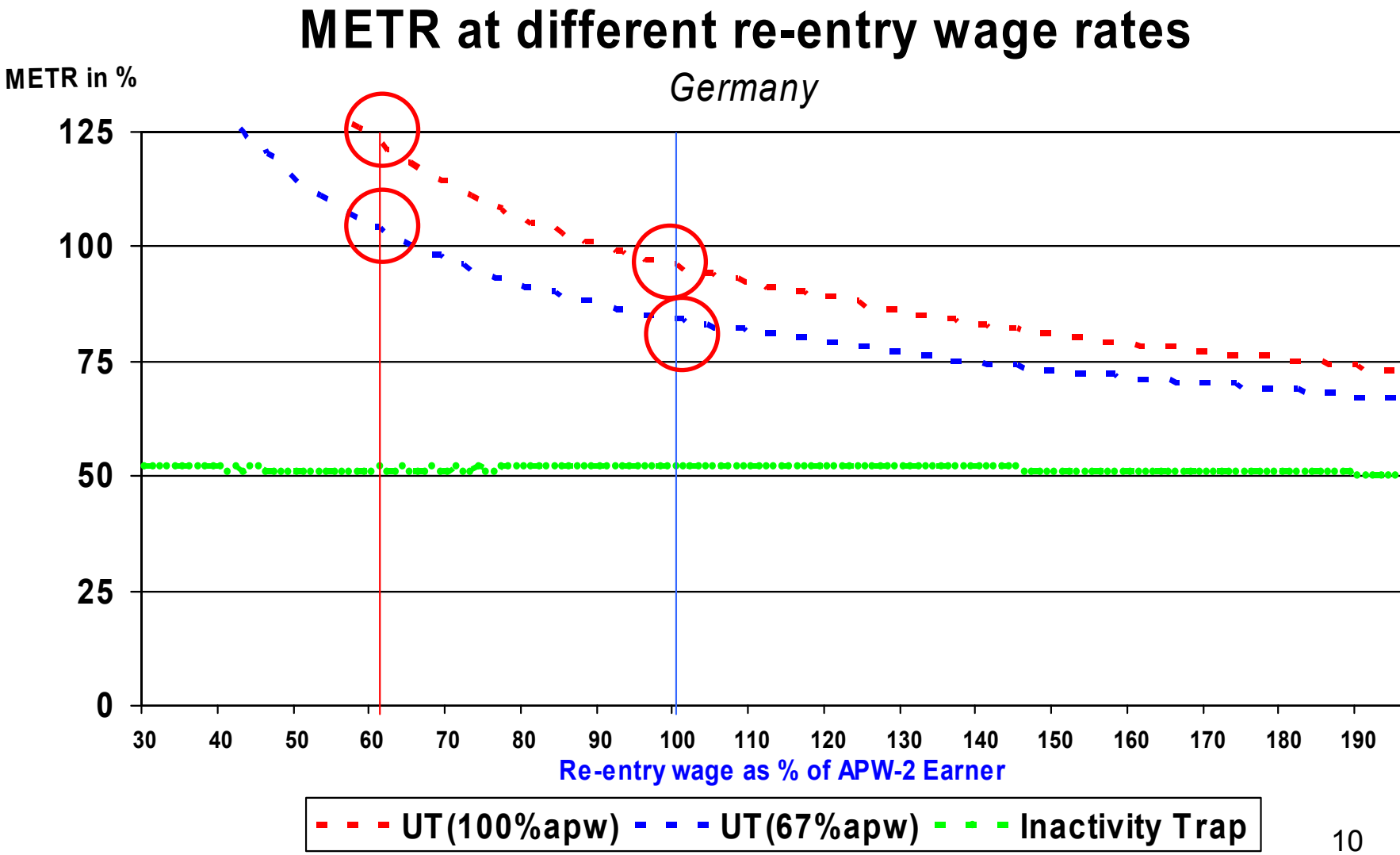
1st Spouse working, earnings = 67% of APW

- 2st Spouse ⇨ **Currently out-of work (Receiving UB or SA if entitled)**

  1. **UB (when previous work = 100%apw) (UT100)**
  2. **UB (when previous work=67%apw) UT(67)**
  3. **Social assistance (IT)**

MEASURING DISINCENTIVES TO WORK FOR THE SPOUSE

Inactivity trap and unemployment trap for Second Earner

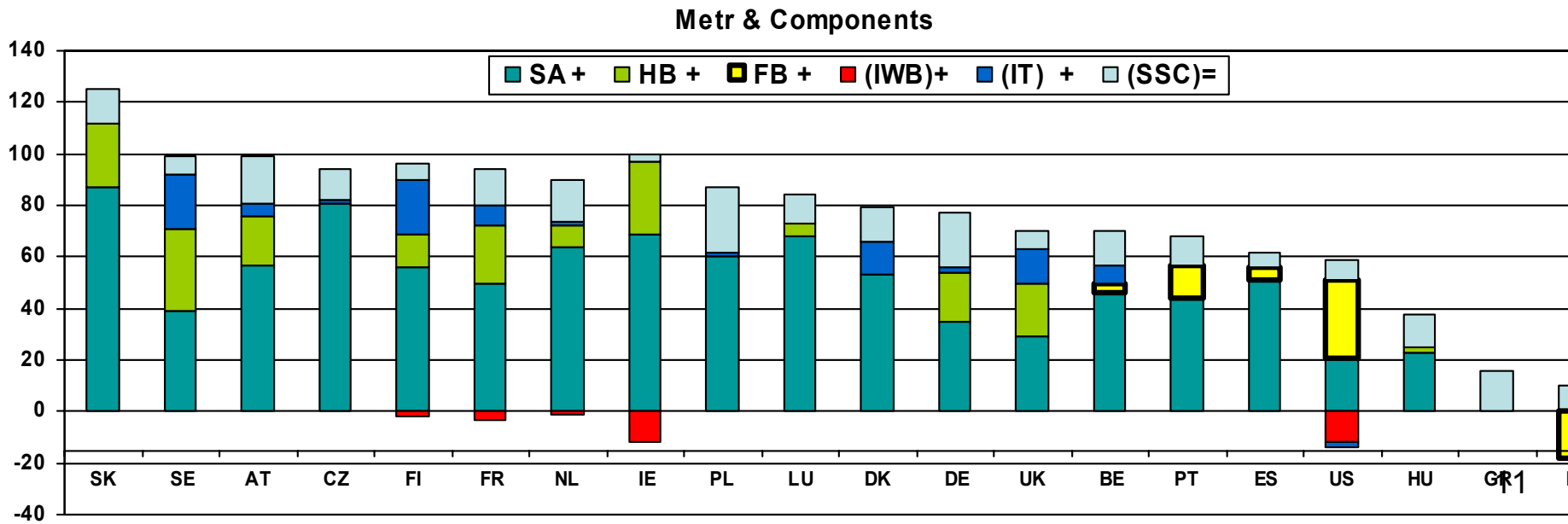


Main Determinants of the Inactivity trap indicator for a jobless household

Moving from social assistance to work, at a wage level equivalent to 67%

One-earner couple, with 2 children -2003

Components of METR	BE	DK	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	CZ	HU	PL	SK	US
Withdrawal of *SA +*	46	53	35	0	51	50	69	0	68	64	57	44	56	39	29	81	23	60	87	21
Withdrawal of *HB +*	0	0	19	0	0	22	28	0	5	8	19	0	13	32	21	0	2	0	25	0
Withdrawal of *FB +*	4	0	0	0	5	0	0	-18	0	0	0	13	0	0	0	0	0	0	0	30
In-work tax credit *(IWB)+*	0	0	0	0	0	-3	-12	0	0	-1	0	0	-2	0	0	0	0	0	0	-12
Income Tax *(IT) +*	7	13	2	0	0	8	0	1	0	2	5	0	21	21	13	1	0	2	0	-2
Social Contributions *(SSC)=*	13	13	21	16	6	14	3	9	11	16	18	11	6	7	7	12	13	25	13	8
METR	69	79	77	16	62	90	88	-8	84	89	99	69	94	100	70	95	37	87	125	45



Inactivity trap Indicator

2003

Marginal effective tax rate when moving from social assistance to work

Family Type	% of APW	BE	DK	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	CZ	HU	PL	SK
Single	50%	68	90	89	16	51	58	88	12	89	93	87	51	83	98	79	79	46	69	87
	67%	67	81	81	16	44	68	73	19	76	86	75	43	76	82	71	59	43	60	72
	100%	63	71	72	16	40	59	59	26	61	73	64	37	65	67	58	49	42	52	56
	150%	62	68	68	21	37	51	55	32	56	60	57	36	60	59	50	42	48	46	47
1 earner couple	50%	74	71	89	16	61	57	100	7	79	98	100	56	92	100	84	91	46	75	125
	67%	69	82	81	16	49	82	90	12	87	93	87	56	89	98	82	78	43	74	110
	100%	63	77	70	16	41	64	69	24	73	80	72	55	76	77	67	64	42	61	81
	150%	60	71	62	21	37	53	57	30	58	64	63	45	67	66	55	53	48	52	64
2 earners couple*	50%	40	66	47	16	15	22	12	28	33	36	20	14	25	26	22	29	12	32	19
	67%	46	60	48	16	17	25	17	30	30	38	25	16	28	28	24	28	18	33	20
	100%	49	57	50	16	22	29	21	34	30	41	30	18	33	31	27	28	26	33	20
	150%	52	59	51	21	25	31	24	37	31	39	35	21	38	35	29	29	37	33	24
(with 2 hildren)	% of APW	BE	DK	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	CZ	HU	PL	SK
Lone parent, 2 ch.	50%	81	94	89	16	68	54	48	0	85	84	100	56	64	65	50	93	46	79	112
	67%	73	81	86	16	57	81	24	-4	82	81	84	56	65	63	60	79	37	67	94
	100%	67	76	75	16	46	68	37	16	60	73	71	62	63	60	65	67	34	66	73
	150%	64	71	67	18	40	54	38	27	53	60	62	52	58	55	57	56	43	56	60
1 earner couple with 2 children	50%	74	72	89	16	74	54	96	-4	75	93	100	74	92	100	63	100	46	100	125
	67%	69	79	77	16	62	90	88	-8	84	89	99	69	94	100	70	95	37	87	125
	100%	63	78	70	16	47	74	73	13	77	80	80	65	87	83	73	76	34	73	96
	150%	60	73	62	18	41	58	59	26	58	64	68	62	74	70	63	62	43	64	74
2 earners couple with 2 children*	50%	40	89	51	16	11	29	28	36	47	40	20	55	40	34	58	30	12	52	34
	67%	46	78	51	16	14	29	28	38	38	41	25	44	39	34	52	30	18	47	31
	100%	49	69	52	16	19	30	29	41	32	43	30	37	41	35	45	31	26	43	28
	150%	52	67	51	18	23	30	29	42	33	40	35	33	43	38	41	31	37	40	32

Inactivity trap

Change in METRs since 2001

Family Type	% of APW	BE	DK	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	CZ	HU	PL	SK
Single	33%	-1	-1	0	0	2	-10	0	0	-10	0	0	0	-13	0	0	-4	-9	-1	-16
	50%	-3	-1	0	0	1	-15	1	-4	-2	1	0	1	-4	0	0	-3	-9	-3	-26
	67%	0	-1	1	0	0	-3	1	-1	0	2	0	1	-2	-1	0	-4	-10	-3	-23
	100%	0	-1	1	-2	0	-1	0	-1	-1	2	0	1	-2	-1	1	-2	-7	-2	-16
	150%	0	-1	1	0	0	-1	1	1	-2	1	1	1	-1	-1	1	-1	-3	-1	-10
1 earner couple	33%	0	0	0	0	2	-13	0	0	-16	2	0	0	-13	0	0	0	-9	0	0
	50%	-3	0	0	0	1	-15	0	-1	-11	2	0	0	-6	0	0	-8	-9	-3	0
	67%	0	0	1	0	1	-4	3	-1	-8	1	2	0	-2	-1	0	-4	-10	-4	-14
	100%	0	0	1	-2	1	-1	2	0	0	3	1	1	-2	-1	1	-4	-7	-3	-18
	150%	0	0	1	0	0	-1	3	1	-1	1	1	1	-2	-1	1	-3	-3	-2	-11
2 earners couple*	33%	-5	-3	2	0	-2	-1	-4	-2	19	5	0	-2	-3	-2	9	-4	-8	0	-25
	50%	-5	-2	1	0	-2	-1	-2	-5	12	3	0	0	-2	-1	6	-3	-10	0	-17
	67%	-3	-2	1	0	-2	-2	-2	-2	8	3	1	0	-2	-1	5	-2	-9	0	-13
	100%	-2	-1	1	-2	-1	-1	-1	-1	4	2	1	0	-2	-1	4	-1	-6	0	-9
	150%	-1	-1	1	0	-1	0	0	0	2	1	1	0	-1	-1	3	-1	-3	0	-5

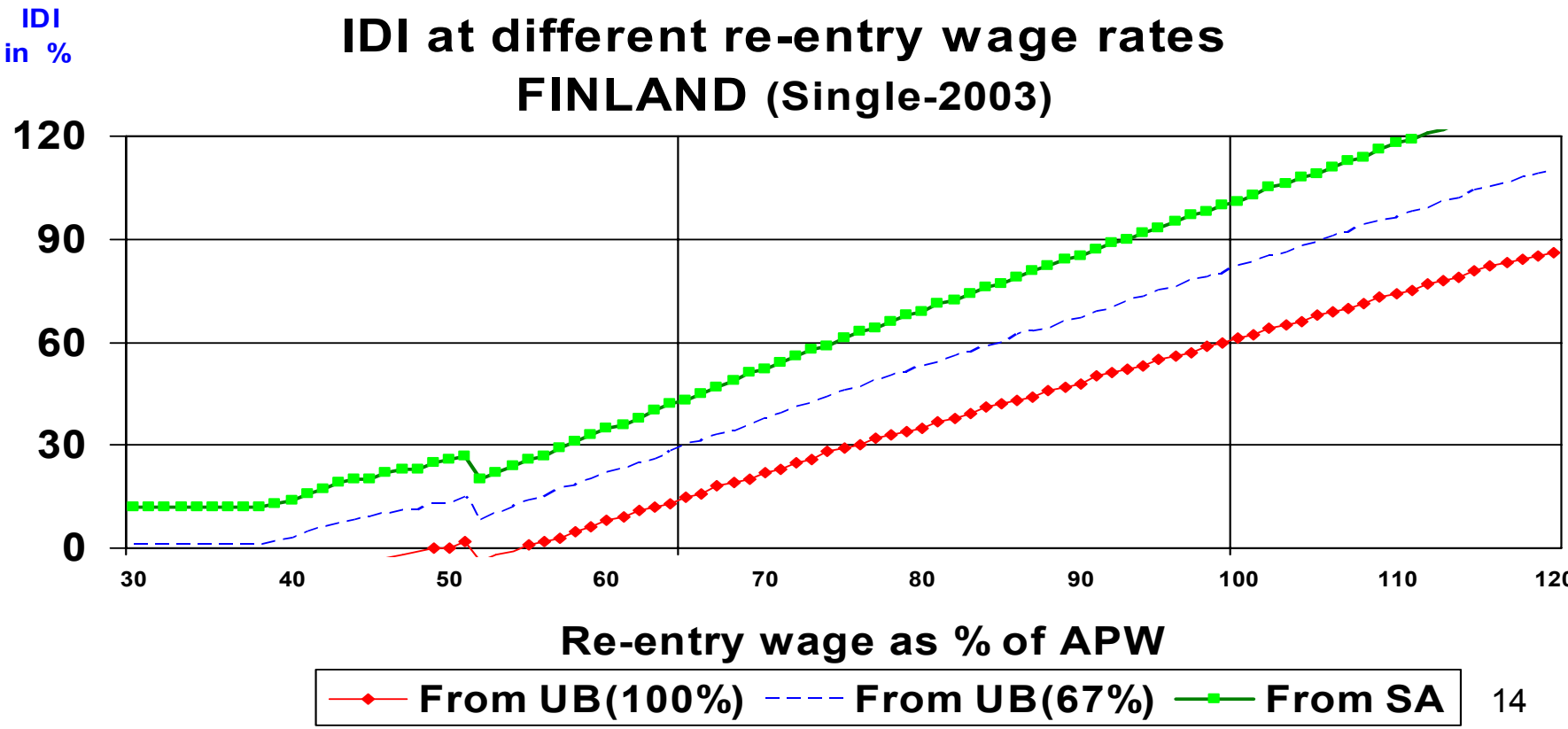
(with 2 hildren)	% of APW	BE	DK	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	CZ	HU	PL	SK
Lone parent, 2 ch.	33%	-1	4	0	0	-1	-16	9	1	-13	7	0	0	-1	0	37	0	-1	0	0
	50%	-1	2	0	0	0	-11	-3	1	-9	1	1	0	-1	2	0	-7	1	-4	-14
	67%	-3	-1	0	0	-1	0	-30	-2	1	0	1	0	-1	1	0	-4	-1	-3	-27
	100%	-2	-1	1	0	-1	-1	-23	-1	1	3	1	10	-1	1	-1	-3	-5	0	-18
	150%	-1	0	0	-2	0	-1	-15	0	-1	2	1	8	-1	-1	1	-3	-2	0	-12
1 earner couple with 2 children	33%	-1	2	0	0	0	-15	0	1	-19	2	0	0	-13	0	-28	0	-1	0	0
	50%	-4	2	0	0	-2	-11	1	1	-12	-1	0	18	-8	0	-2	0	1	0	0
	67%	0	1	0	0	-2	1	1	-1	-9	-1	3	13	-5	0	-2	-5	-1	-4	0
	100%	0	-1	0	0	-2	0	1	1	1	2	2	8	-2	-1	-1	-4	-5	1	-24
	150%	0	-1	0	-2	-1	0	3	0	-1	1	2	6	-2	-2	1	-4	-2	-1	-13
2 earners couple with 2 children*	33%	-5	-5	0	0	-1	-6	-2	-9	22	8	0	27	4	-2	13	-3	-8	12	-71
	50%	-5	-3	0	0	-1	-4	-1	-8	14	5	0	18	2	-3	4	-2	-10	5	-40
	67%	-3	-2	0	0	-1	-5	-1	-5	11	4	1	14	1	-2	3	-3	-9	3	-30
	100%	-2	-2	0	0	-1	-3	0	-3	5	3	1	9	0	-2	2	-2	-6	2	-25
	150%	-1	-1	0	-2	-1	-2	1	-1	2	2	1	6	0	-2	2	-1	-3	-1	-13

AN ALTERNATIVE MEASURE of (DIS)INCENTIVES TO WORK:

Percentage Increase in Disposable Income (IDI)

A Forward-looking net replacement rate

$$\Rightarrow \text{IDI} = \frac{\text{NetY}_{(\text{in-work})} - \text{NetY}_{(\text{out-of-work})}}{\text{NetY}_{(\text{out-of-work})}} = (1\text{-METR}) \times \frac{\text{Ygross}}{\text{NetY}_{(\text{out-of-work})}}$$



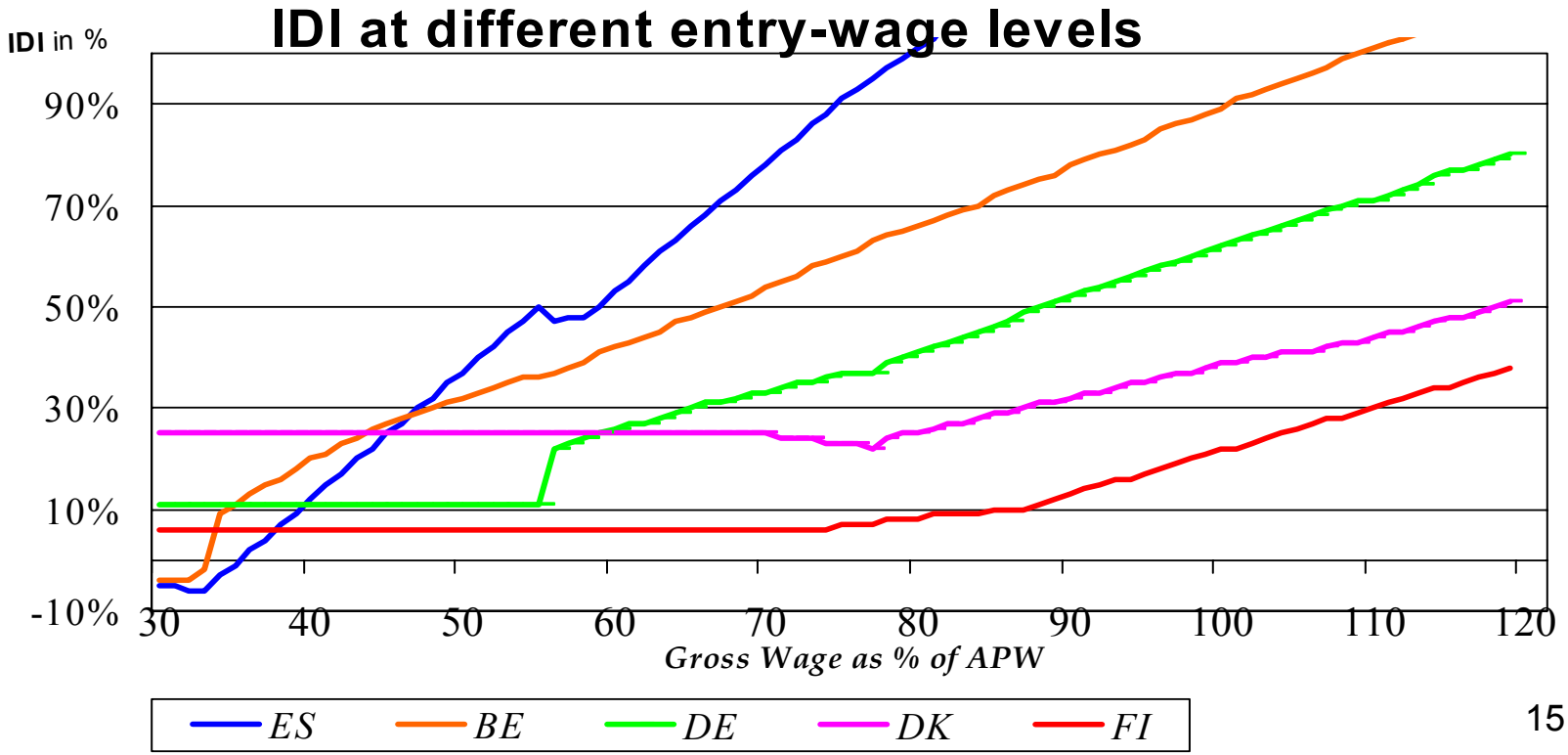
MEASURING INCENTIVES TO TAKE-UP A JOB

For the Breadwinner of a One-Earner Household with 2 children

A cross-country comparison based on IDI

DISPOSABLE INCOME (when out-of -work) **2003** *(One-earner couple, 2 children*

	SK	LU	IE	PT	AT	FI	UK	SE	CZ	FR	DK	NL	DE	PL	BE	ES	HU	GR	I
€	3315	25548	20548	6540	16935	18465	20634	16359	4182	13426	24098	18003	16914	3088	13100	6339	1298	282	
as %APW	92	79	76	75	69	64	63	61	60	60	57	57	50	50	42	37	28	2	



LOW - WAGE TRAP

Does it pay to increase hours or work effort?

☞Transition: from part-time to full time

or : increase working hours

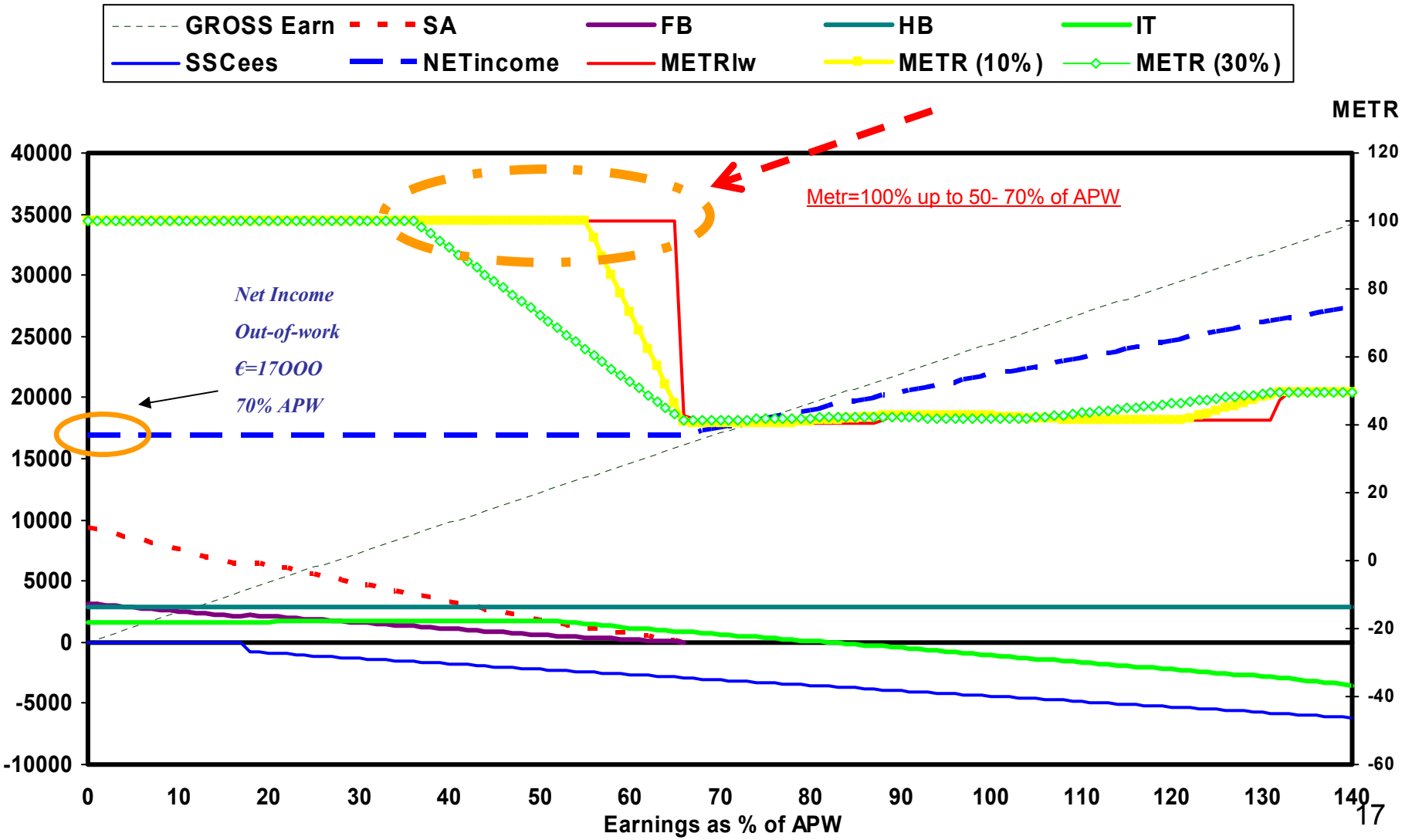
⇨INDICATOR: $METR_{lw}$

- Compare in-work net incomes over a wide range of gross earnings levels (0-200% of APW)

$METR_{lw}$ and Budget constraints

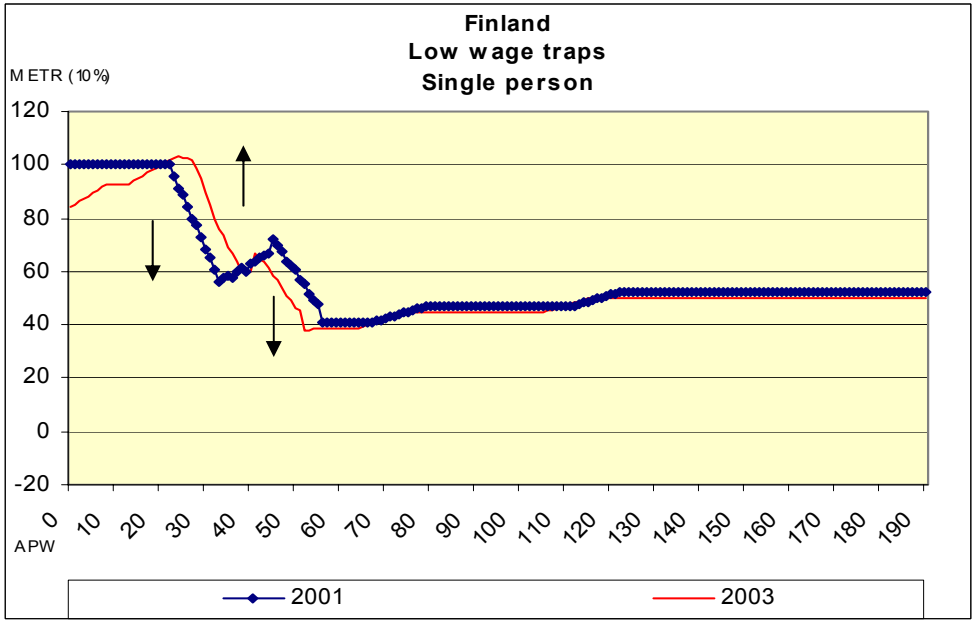
Austria (2003)

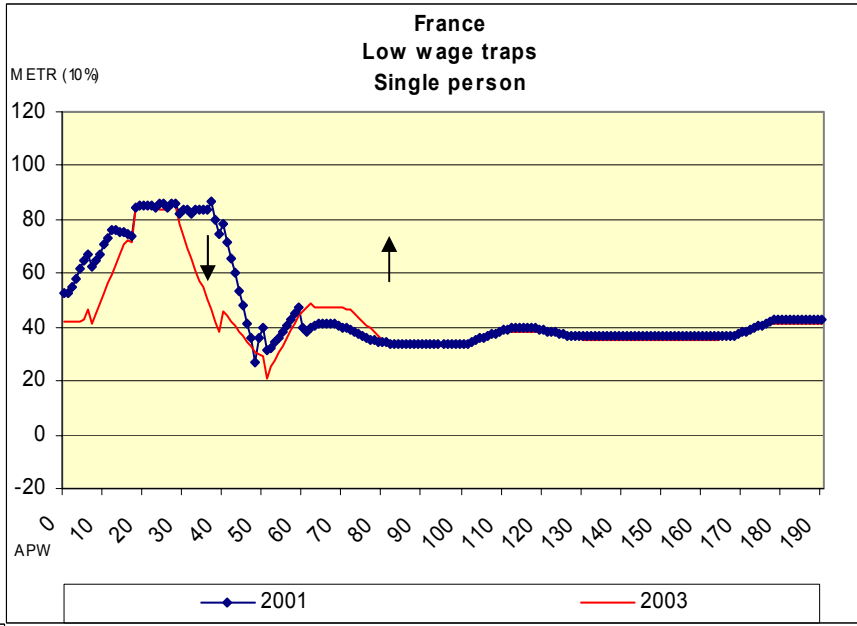
One-earner-couple with 2 children

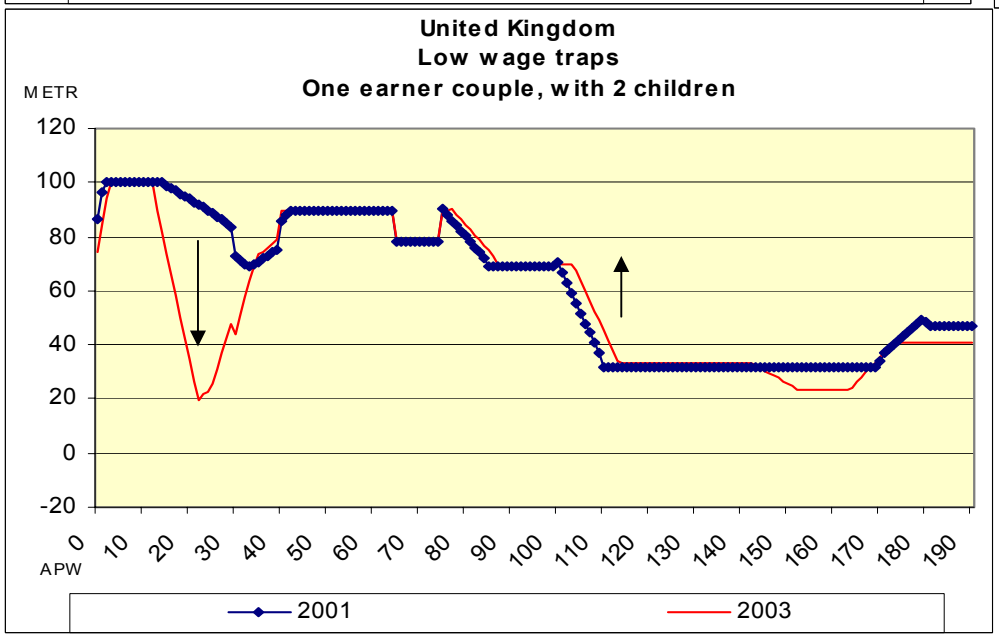


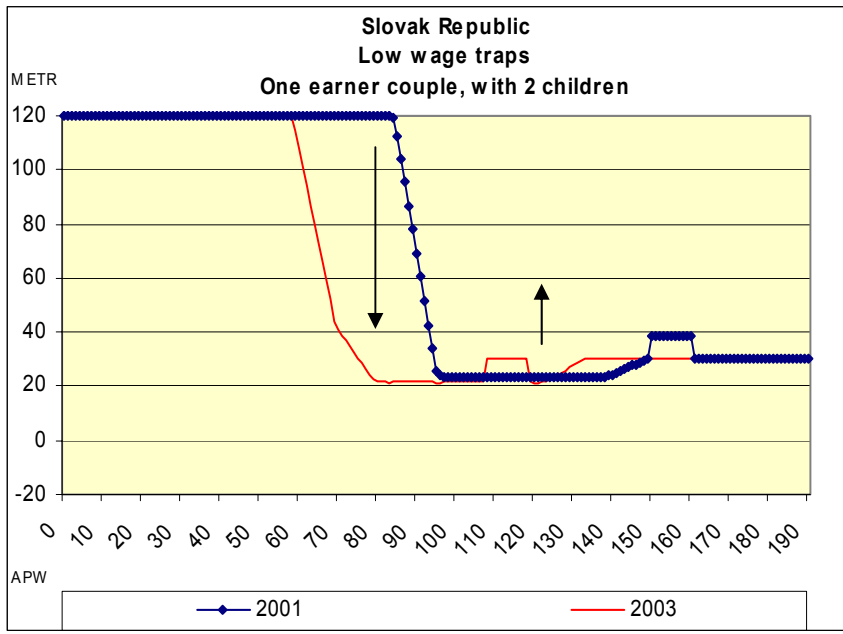
Comparing $METR_{lw}$ ($\Delta Ygross=10\%$) over time

2001- 2003









How relevant are disincentives to work?

TO SUM UP

- Disincentive is highest for low-skilled workers with low earnings potential

⇨ Low-skilled are at risk of benefit dependency and progressive marginalisation from the LM

- Inactivity trap: more problematic than unemployment trap (from UI):
  - Duration of UI usually limited
  - Benefits subject to (more or less stringent) job search conditions

- Concerns over poverty levels: re-designing these benefit schemes more difficult
  - Job-search requirements and other conditions need to be more finely tuned
  - Careful analysis of budget constraints can, however, help to reduce any existing negative impact on work incentives

⇨ **POSSIBLE REMEDIES**

- Earnings disregard: allows benefit recipients to maintain some work attachment
- In-work benefits: can increase the attractiveness of taking up employment

☞ **Problems**: - If not well designed and targeted can be too costly
- reducing risk of inactivity trap can lead to higher risk of low-wage trap

Tax-Benefit Indicators
Major Strenth & Weaknesses

☹ CONS

- Can not measure the BUDGETARY COST of changes in tax–benefit policies
- Can not address DISTRIBUTIONAL ISSUES
- Static approach:all income measures relate to the current period
  - ☞ Ignore any longer-term effects of today's labour market status:
    - » on future earnings
    - » pension entitlements
    - » (re-)qualification for unemployment insurance benefits, etc.
- Can not take into account important issues related to LM performance:
  - » the eligibility rules
  - » « job search » and « availability to work » requirements
  - » interaction with ALMPs and EPL
  - » Take- up of benefits and coverage

Tax-Benefit Indicators: Major strength & Weaknesses

☺ PROS:

⇨ ***Timely and detailed description of all relevant aspects of the overall functioning of tax-benefit systems***

⇨ ***A transparent and consistent way to measure and compare, across countries and over time, financial incentives to work and income-support adequacy***

⇨ ***Helpful in assessing 'first-round' impact of reforms geared to Improving:***

- the incentives to work
- the way in which LM institutions provide insurance against income & employment risks

THANK YOU !