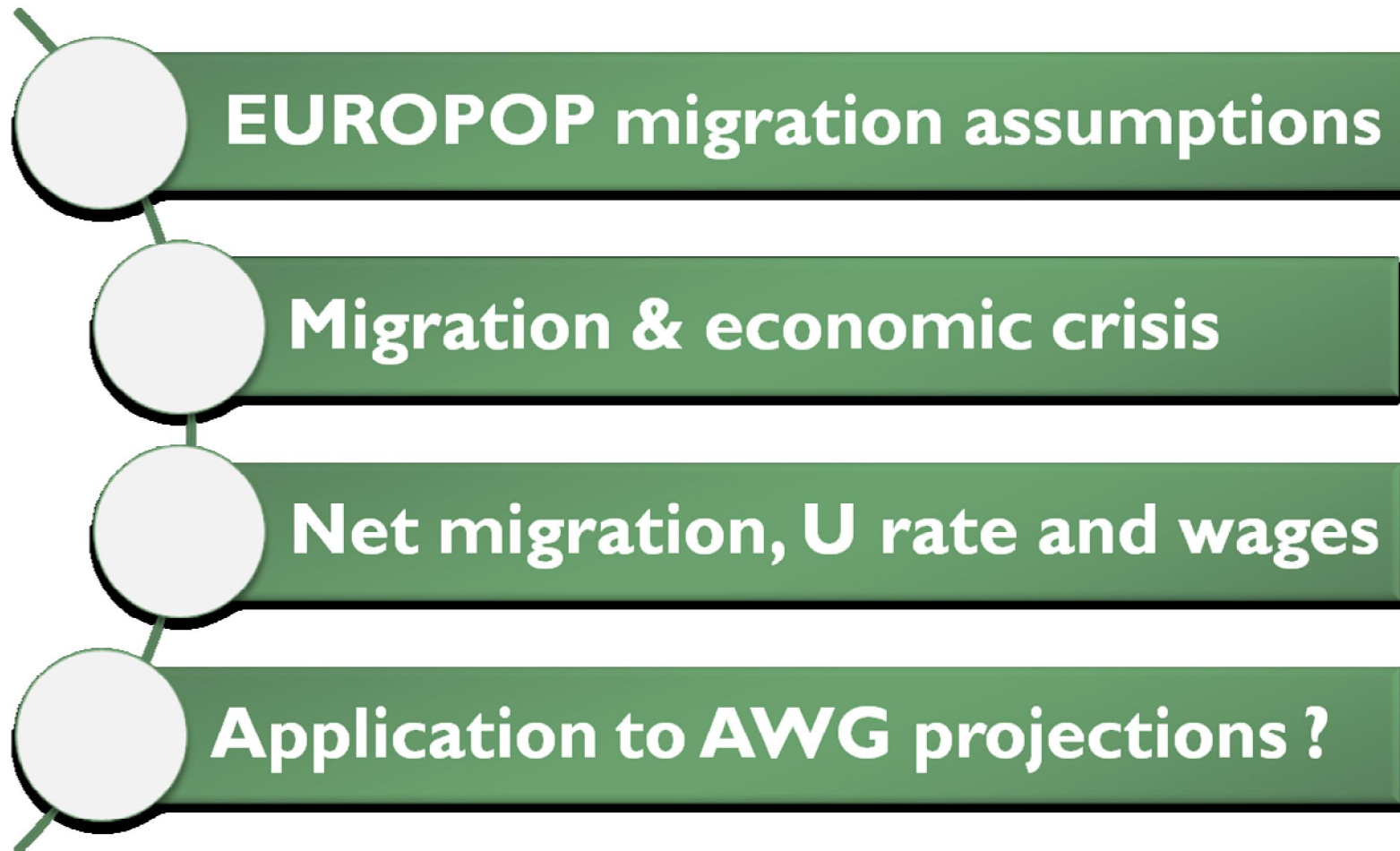# NBP

Economic factors and net migration assumptions for EU countries – how to incorporate lessons from the recent economic crisis?

Pawe³ Strzelecki
Warsaw School of Economics,
National Bank of Poland

Joint Eurostat/UNECE
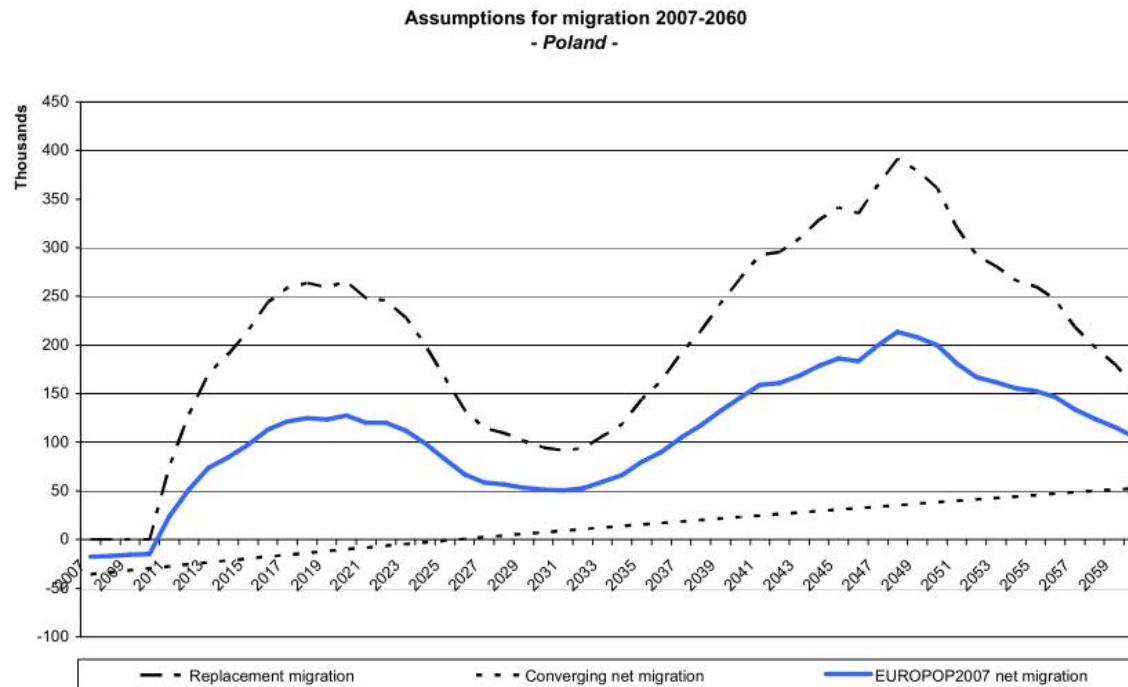WORK SESSION ON DEMOGRAPHIC PROJECTIONS
Rome, Italy 30.10. 2013

Outline of the presentation

EUROPOP migration assumptions

Migration & economic crisis

Net migration, U rate and wages

Application to AWG projections ?

P.A.Strzelecki – Economic factors and net migration

Migration assumptions - EUROSTAT

} Convergence of the crude immigration and emigration rates
to one set of parameters for the whole EU in the
convergence year: for example - 2100
} Replacement migration mechanism

Assumptions for migration 2007-2060
- Poland -

Source: Eurostat(2007) Europop convergence scenario –summary note

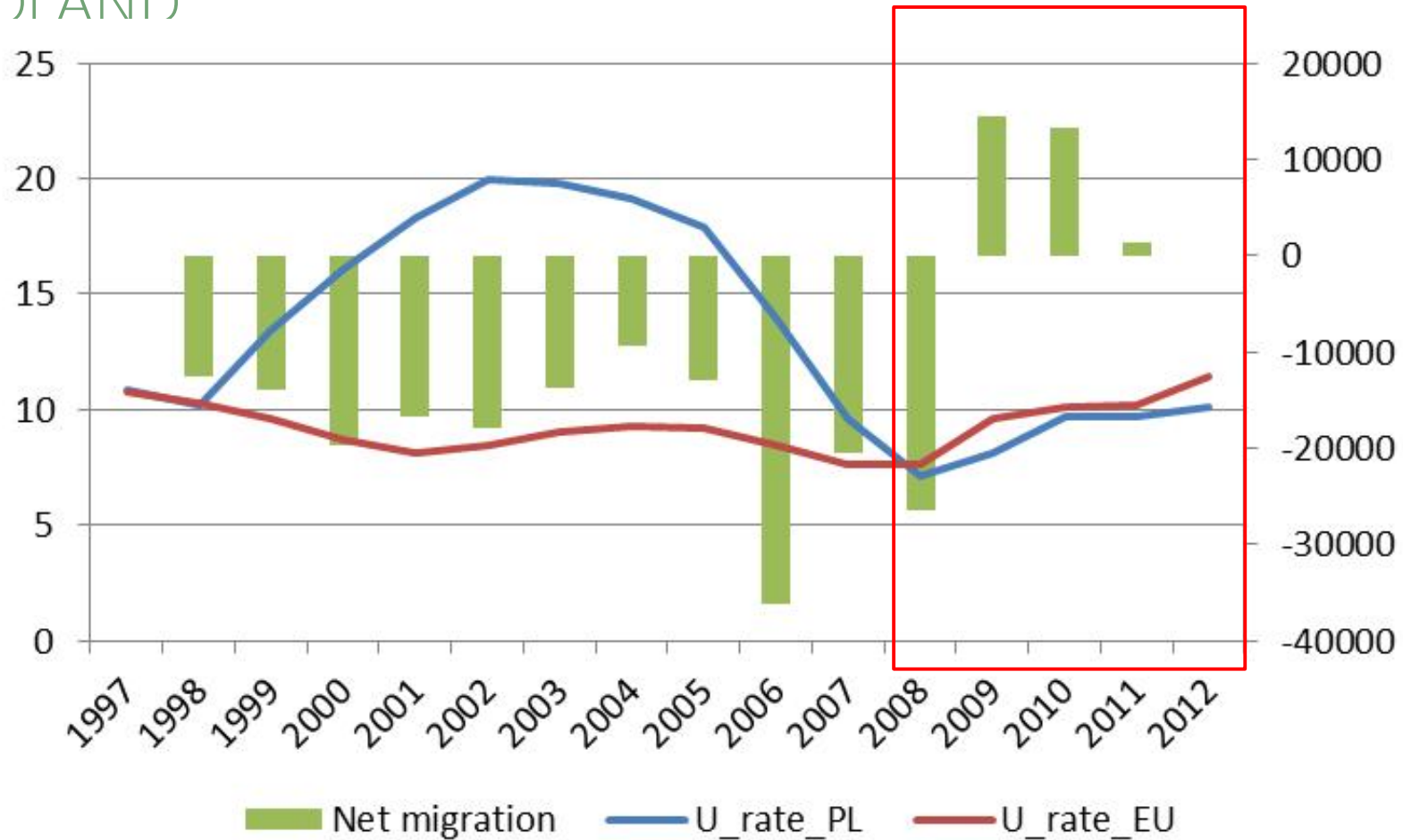▶ P.A.Strzelecki – Economic factors and net migration …

Migration assumptions – problems after crisis

} Economic crisis changed volume or even direction of migration – to what extend changes are permanent?

} In the past episodes of replacement migration observed only in some places – usually in those countries who attracted immigrants also by economic factors.

} Consistency of economic recovery and demographic recovery assumptions?

Proposed direction: taking into account relations between migration, unemployment and wages than attempt to construct consistent assumptions

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Migration flows and economic crisis (POL)
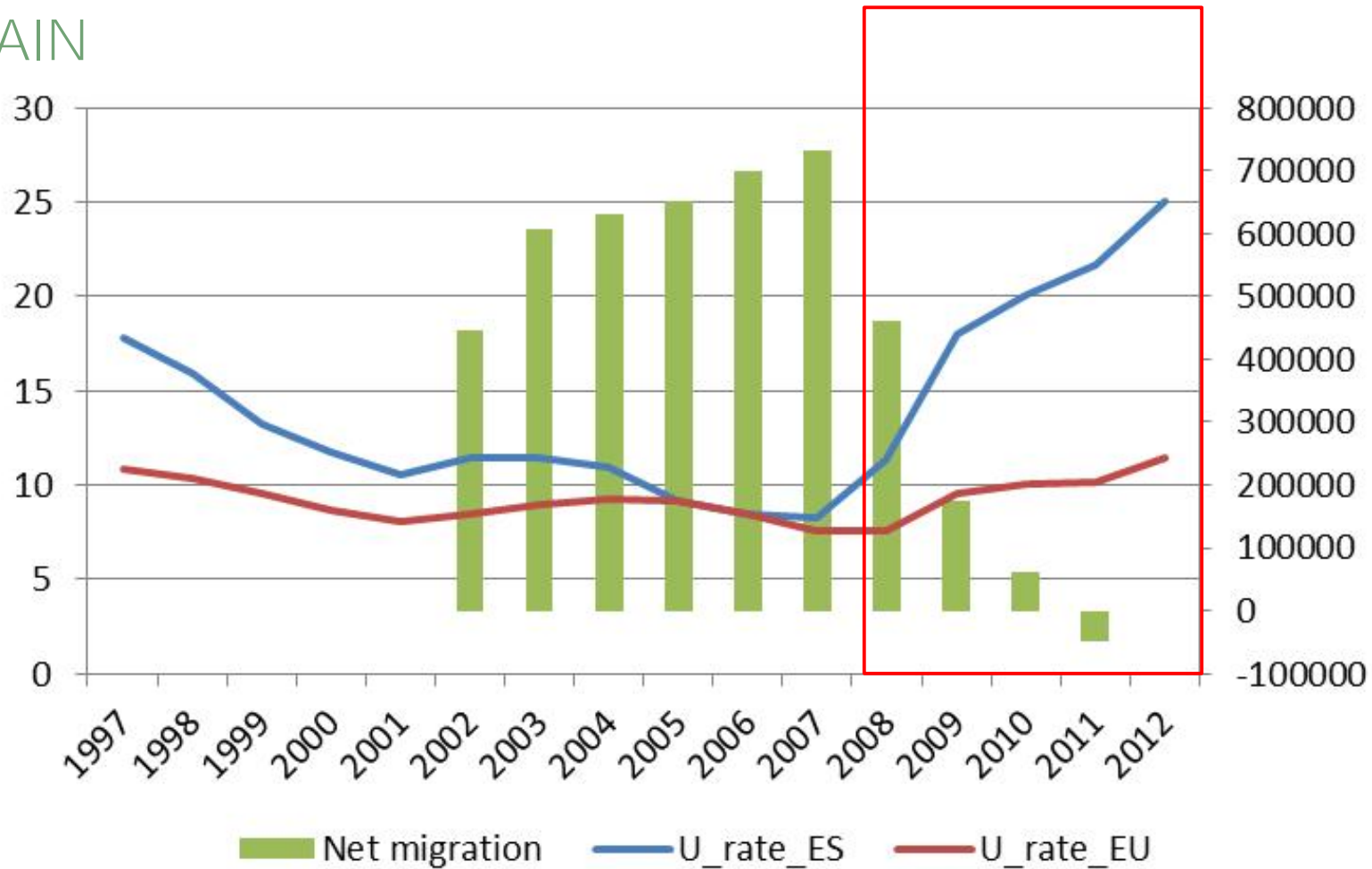
POLAND

Source: Eurostat

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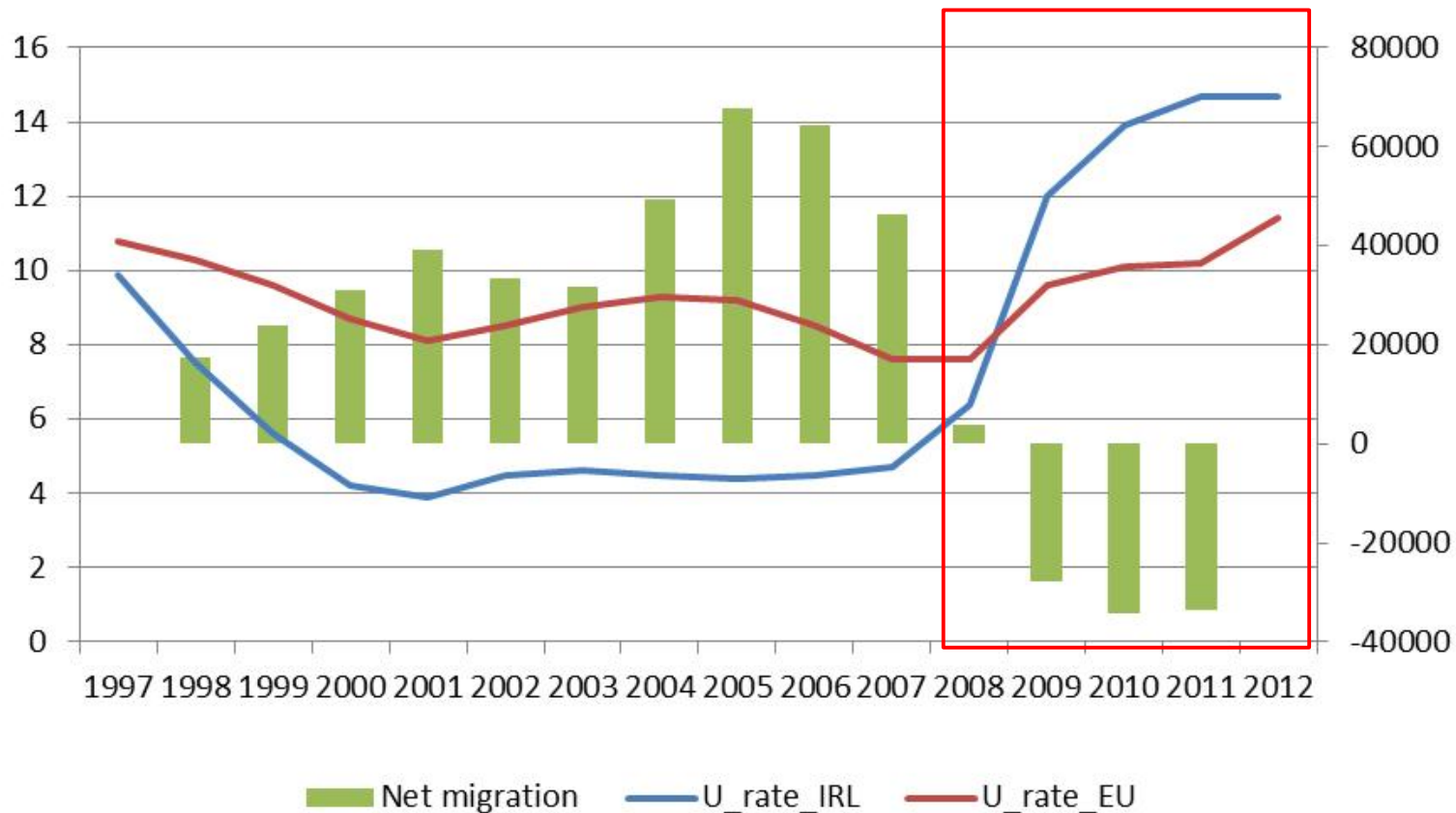
Migration flows and economic crisis (ESP)

SPAIN

Source: Eurostat

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Migration flows and economic crisis (IRL)

IRELAND

Source: Eurostat
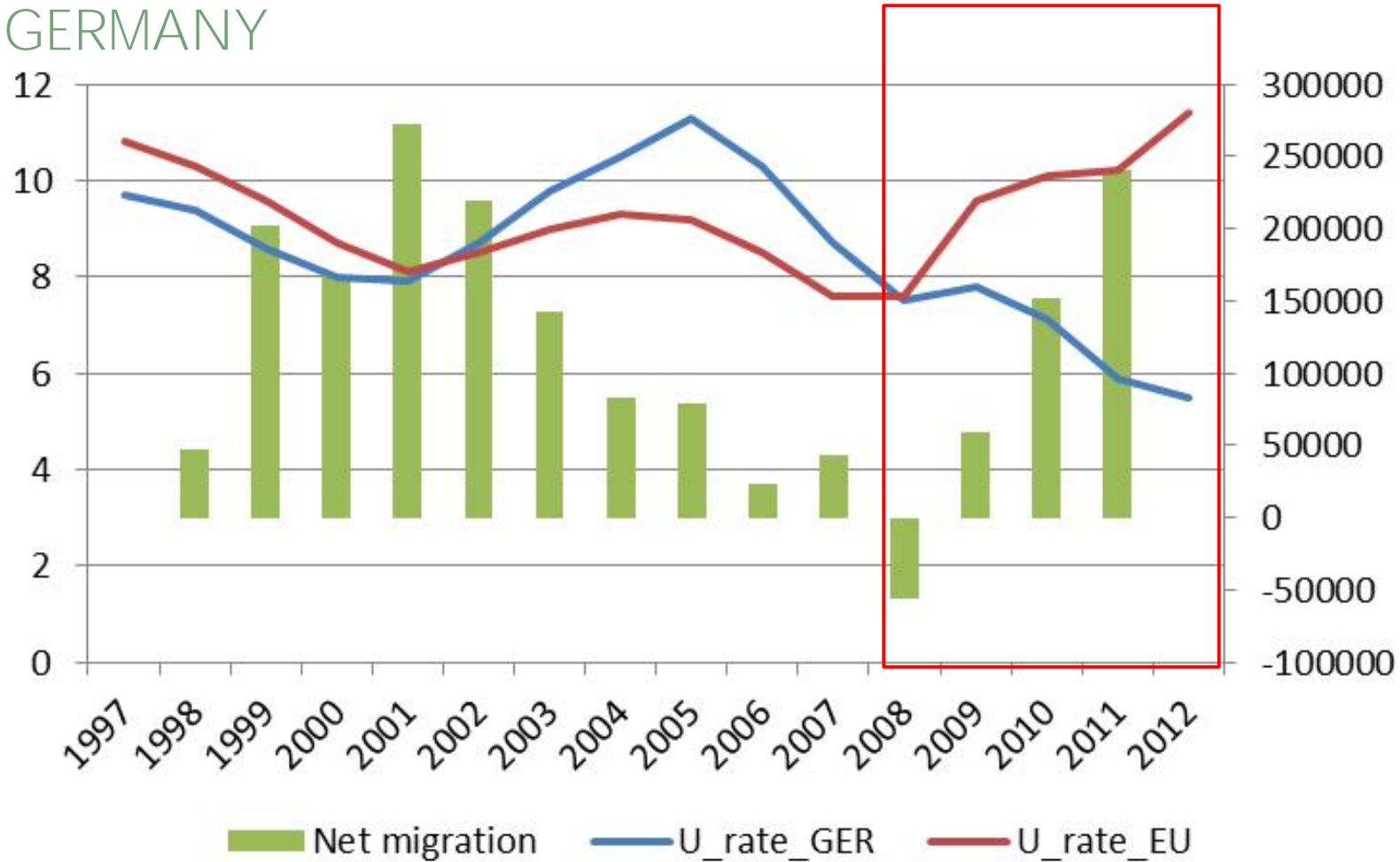
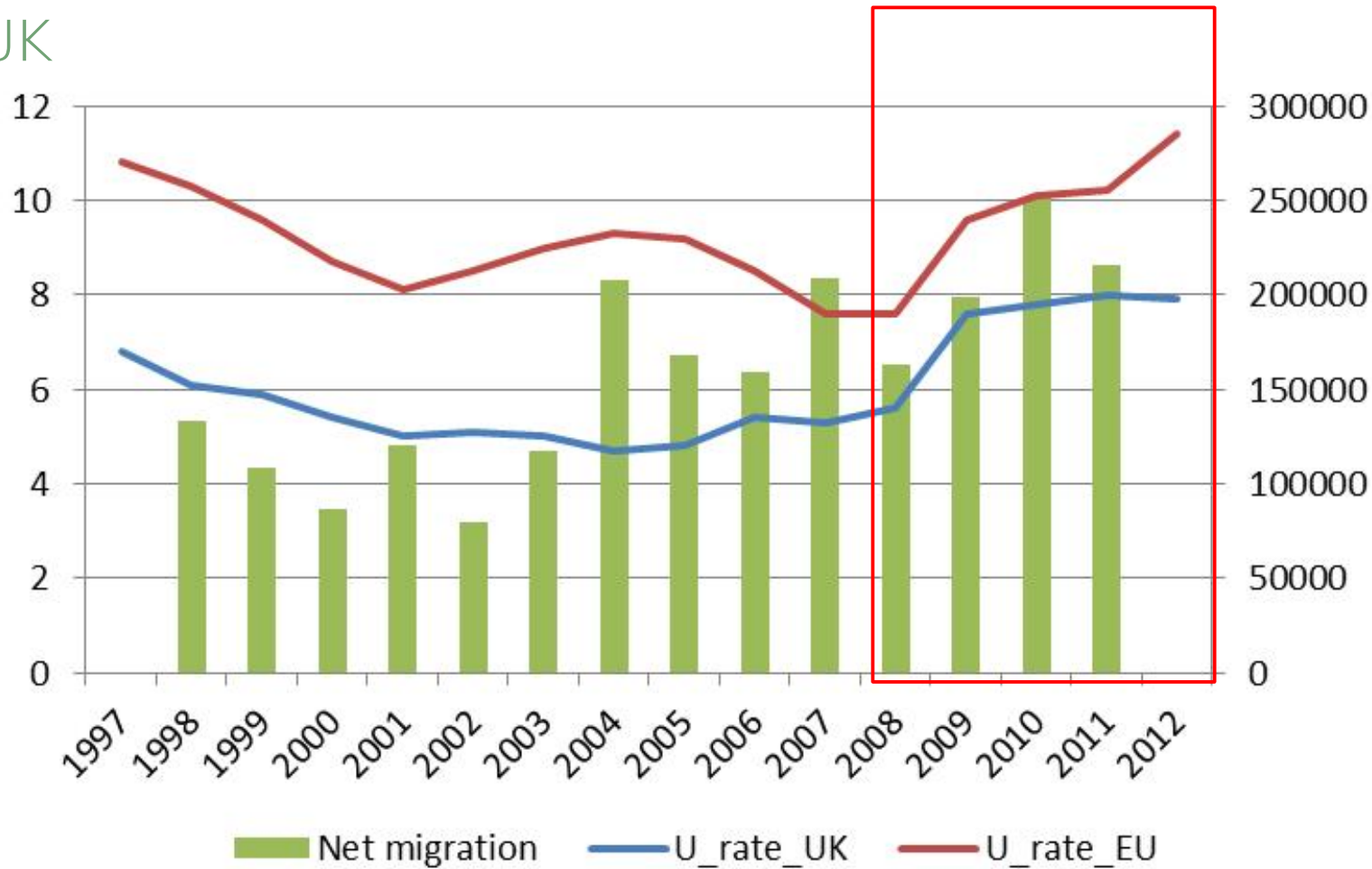# Migration flows and economic crisis (GER)

GERMANY

Source: Eurostat

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Migration flows and economic crisis (UK)

UK

Source: Eurostat

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PL: coutry specific migration and economic variables in the short term

PL: official estimates of *de facto* net migration and projections

Dependent variables:
net migration between PL and selected countries

Explanatory variables:
1) U_comp – comparison of unamployment in PL to other country
2) w_pps_comp relation of purchasing power of wage in the country and PL
3) w_eur_comp – relation of net wages in Euro

4) dummy variables: opening of the labour markets for workers from PL

	U_comp	w_pps_comp	w_eur_comp
AT	-*	+***	+*
BE	-**	0	0
DK	0	0	0
FI	0	0	0
FR	0	+*	0
GR	-**	0	0
ES	-***	0	0
IR	-***	0	+*
NE	-*	0	0
PT	0	0	+*
SW	-***	0	+*
GB	-*	0	+*
DE	-**	+*	+*
IT	-**	+*	+**

Source: Own calculation

Economic projection: EC Spring forecast 2013

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PL: short term projections

PL: estimates of total *de facto* migration and projections

	Census 2002	2004	2005	2006	2007	2008	2009	2010	2011	2012	2012*	2013	2014	2015
TOTAL	786	1 000	1 450	1 950	2 270	2 210	2 100	2 000	2 060	2 130	2 090	2 145	2 256	2 370
EU	461	770	1 200	1 610	1 925	1 887	1 765	1 685	1 754	1 816	1 779	1 826	1 921	2 018
Labour market open door policy since 2004														
Great Britain	24	150	340	580	690	650	595	580	625	637	638	662	696	730
Ireland	2	15	76	120	200	180	140	133	120	118	102	89	80	70
Sweeden	6	11	17	25	27	29	31	33	36	38	40	44	48	52
Labour market open door policy since 2006														
Spain	14	26	37	44	80	83	84	48	40	37	22	3	1	1
Portugal	0	1	1	1	1	1	1	1	1	1	1	1	1	1
Finland	0	0	1	3	4	4	3	2	2	2	2	2	2	2
Greece	10	13	17	20	20	20	16	16	15	14	9	1	1	1
Italy	39	59	70	85	87	88	88	92	94	97	94	93	90	88
Labour market open door policy since 2007														
Netherlands	10	23	43	55	98	108	98	92	95	97	100	105	109	114
Labour market open door policy since 2008														
France	21	30	44	49	55	56	60	60	62	63	64	66	68	71
Labour market open door policy since 2009														
Belgium	14	13	21	28	31	33	34	45	47	48	50	53	56	59
Denmark	0	0	0	0	17	19	20	19	21	23	22	24	26	28
Labour market open door policy since 2011														
Austria	11	15	25	34	39	40	36	29	25	28	27	29	31	33
Germany	294	385	430	450	490	490	465	440	470	500	506	551	601	651

Source: Polish CSO, own calculations

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Net migration and economic factors EU

Dependent variables:
- total net migration in the countries

Explanatory variables:
-difference between country's and EU average unemployment rate
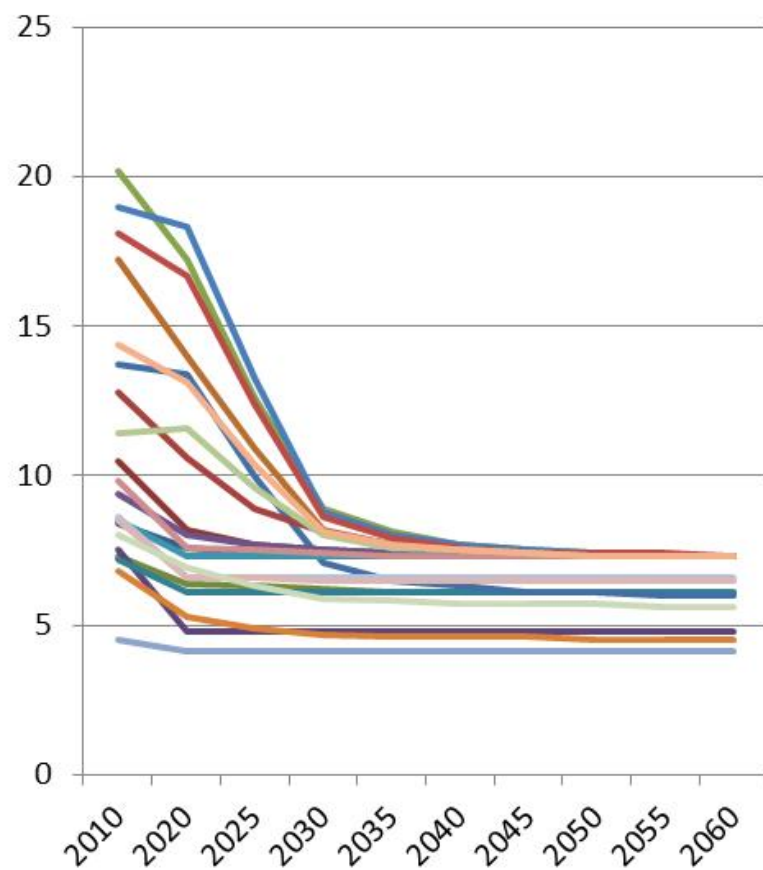
-wage in relation to EU average

	Relative unemployment	Relative wages
Belgium	0	0
Czech Republic	0	0
Denmark	-**	+**
Germany	0	+*
Estonia	0	0
Ireland	-***	+**
Spain	-***	0
France	0	0
Italy	-***	0
Cyprus	0	0
Latvia	0	0
Lithuania	0	0
Luxembourg	0	0
Hungary	0	-*
Netherlands	-***	-*
Austria	+*	+**
Poland	-**	0
Portugal	0	0
Slovenia	0	0
Slovakia	-*	0
Finland	-**	0
Sweden	0	+**
United Kingdom	0	0
Bulgaria	nd	nd
Romania	nd	nd
Malta	nd	nd
Greece	nd	nd

Source: Own calculation

AWG assumptions: unemployment and wages

Unemployment
limited convergence

Real wages - convergence

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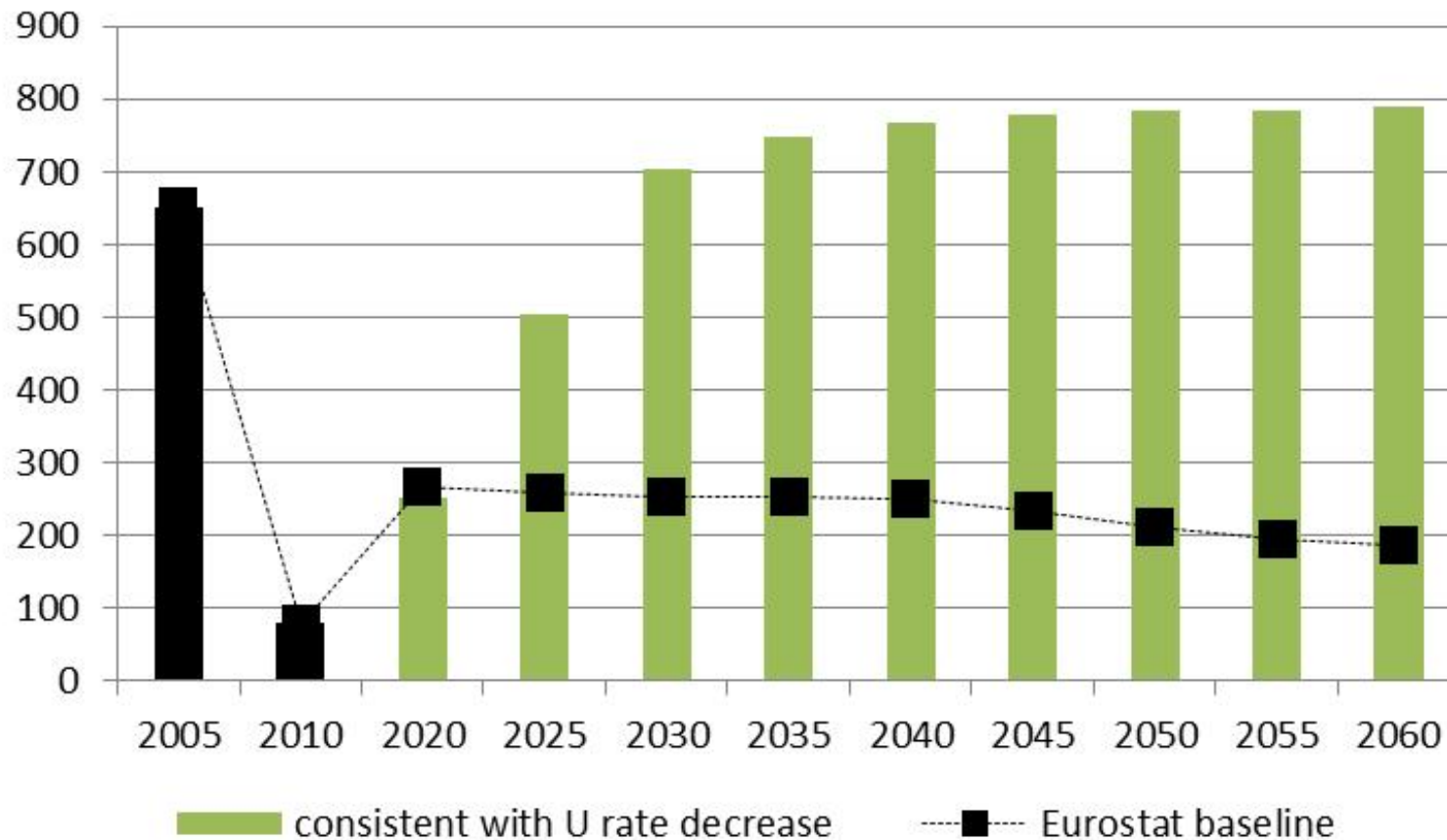# AWG consistent migration and macro 2010 (IRL)

Ireland

Source: Own calculation

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AWG consistent migration and macro 2010 (ESP)

Spain

Source: Own calculations

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Conclusions

}   In general:
    economic crisis highlined the role of economic factors in migration flows

}   Short term forecasts:
    differences in unemployment matters - example of PL

}   Long-term population projections:
    - hard to predict next 50 years using relations from last 10y
    - no universal model and explanatory variables
    - problems with long enough comparable data series for EU27
    - net migration – too aggregate measure?

    but

    - if long-term economic scenarios exist it is useful to check
            consistency with migration assumptions
    - starting point in migration assumptions can be biased by unique
            economic conditions
    - example how volatile the migration can be.

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Thank you for your attention!

▶