

## Unemployment and separation: Evidence from five European countries

Anne Solaz (INED, France),

Esther Geisler (Hertie School of Governance, Germany)

Michaela Kreyenfeld (Hertie School of Governance & MPI, Germany)

Marika Jalovaara (University of Turku, Finland),

Silvia Meggiolaro (University of Padova, Italy),

Dimitri Mortelmans (University of Antwerp, Belgium)

Inge Pasteels (University of Antwerp, Belgium)

### Summary

With the recent economic crisis, there has been a renewed interest of researchers in the effect of economic conditions on demographic behavior. In this context, it has been extensively studied how unemployment affects fertility dynamics. However, relatively little interest has been devoted to the effect of unemployment on union stability. Micro-level evidence rather shows that individual job loss increases union dissolution risk. At the macro-level, there is rather evidence of a pro-cyclical relationship between divorce and unemployment: divorce rates decline during economic recessions. This micro-macro paradox calls for further investigations.

Europe has already experienced a dramatic increase in unemployment due to a slowdown in economic growth, even before the onset of the global financial crisis. A cross-national comparison of separation behavior in Europe offers a unique opportunity to add to the literature. Furthermore, unemployed allowances differ between the countries of Europe allowing us to understand how the welfare state is able to buffer adverse effects of economic recessions on union dissolution.

This article draws on rich longitudinal data from Belgium (Flanders), Finland, France, Germany, and Italy to study the effects of individual and aggregate unemployment on dissolution risks. For each country, we use the most appropriate longitudinal data available in the country able to link the professional situation and the partnership history (retrospective data for Belgium, France and Italy, panel data for Germany and register data in Finland). We select couples formed from the mid-seventies, whether married or unmarried, whether first or higher rank union. First results from discrete-time models show that unemployment increases the probability of dissolution for men in all countries while the effect is lower or even not significant among women. This shows that male job status continues to play a greater role. Macro-economic situation has interesting country-specific effects.

## *Extended abstract*

With the recent economic crisis, there has been a renewed interest of researchers in the effect of economic conditions on demographic behavior. To what extent family behavior may be affected by economic situation is of great interest in terms of family policies. In this context, it has been extensively studied how unemployment affects fertility dynamics (Kravdal 2002; Kreyenfeld and Andersson 2014; Pailhé and Solaz 2012; Schmitt 2012). Relatively little interest has been devoted to the effect of unemployment on union stability.

There is consistent evidence from micro-level data that shows that individual job loss or unemployment, as any other indicator of an adverse economic condition leads to a higher risk of union dissolution. From the economic literature point of view, unemployment is considered as an unexpected event affecting earnings (it is a new and not foreseen information about partner) and has then negative consequence on union stability (*Weiss & Willis 1997, Boheim Ermisch 2001*). At the individual level, job loss generally curbs financial resources (which are only partially compensated by unemployment allowances), and increases uncertainty about future earnings and career prospects. It is also well documented that unemployment causes depression and distress (SOURCE). These financial and emotional consequences of unemployment are likely to affect marital stability in a negative way. Surprisingly, macro-level evidence suggests the opposite and shows a pro-cyclical relationship between divorce and unemployment (*Hellerstein, Morrill 2011, Amato Beattie. 2011, Schaller 2010*).

This micro-macro paradox (*Fisher Liefbroer 2006*) calls for further investigation that include both individual as well as and macro level measures of economic uncertainty. A cross-national comparison of separation behavior in Europe offers a unique opportunity to add to the literature. Many Europe countries have experienced substantial fluctuation in unemployment rates before the onset of the global financial crisis. Furthermore, unemployed allowances differ between the countries of Europe allowing us to understand how the welfare state is able to buffer adverse effects of economic recessions on union dissolution.

This article draws on rich longitudinal data from Belgium (Flanders), Finland, France, Germany, and Italy to study the effect of individual and aggregate unemployment on union dissolution risks.

### **Theoretical background**

At the individual level, living in a union (whether married or not) may constitute an insurance and solidarity against economic insecurity. Especially in a context of increase of dual-earner couples, the job loss of one partner, and the loss of income associated, might be less detrimental for the unemployed person if he or she can benefit from partner's income, assuming that household resources are shared. Moreover, the deterioration in individual and psychological well-being generally associated to unemployment (Winkelmann and Winkelmann, 1998), might be attenuated if you benefit from a supporting family environment.

Although unemployment might then have less effect on personal life when people are in partnership than when people are alone, unemployment may affect union stability and have mixed effects. On one hand, in

reaction to the economic hardship following the unemployment, partners may choose to strengthen their relationship. They can benefit from more time together. They can have preferences for risk sharing. Furthermore, there could be a reluctance and social costs to leave a partner in need, and let him/her alone in such a situation. Such barriers to leaving marriage may come from religious feelings, disapproval by social environment, or the presence of children (Kraft 2001). Our first assumption is then that unemployment should decrease the divorce risk.

However, the lack of money and social status associated to employment (and the limited career perspective that unemployment involves) may change the relative bargaining power of partners. The economic theory predicts that it is mainly the income shock that increases the likelihood of dissolution. It also points out that an unemployed individual may not fulfil the expectations of partner any more. Furthermore, the job loss is likely to lead to a loss of self-esteem, less network contacts, and psychological stress which might result in deviating behavior (such as alcohol abuse or depression). For all these reasons difficult to disentangle one from other, unemployment is also likely to increase union dissolution leading to an opposite second assumption. Unemployment should increase dissolution risk. Then the micro-effect of unemployment on the probability of separation is ambivalent.

At the macro-level, the relationship between unemployment rate and divorce rate has been for long time positive. It means that economic hardship period creates general stress, and that this stress is likely to affect marital relationship quality and then to increase the proportions of union dissolution and divorces. To explain the immediate effect, one can consider that the recession period is likely to affect most fragile unions. However, since both the decision to separate and the divorce procedures take time, the positive association is likely to be stronger when unemployment rate is lagged as pointed by Amato and Beattie (2011).

Nevertheless, recent studies show rather a decline of divorce rate during the years of Great depression and a negative relationship between divorce and high unemployment rates. The interpretation might be linked to the delay previously mentioned and also to the cost of divorce. People decide to stay in difficult relationships and decide to postpone union dissolution to further periods when they can afford for. Amato and Beattie 2011 find on US data that divorce and unemployment rates were first positively associated, the association became negative from the 1980's. One reason advanced is the higher cost divorce during high unemployment period today than in the past.

If we interact both micro and macro levels, we can predict either a compensation effect: in a context of crisis and high unemployment rate, the usual stigma of being unemployed may be reduced, or an accumulation effect: being unemployed with bad economic conditions diminishes the likelihood of finding a job.

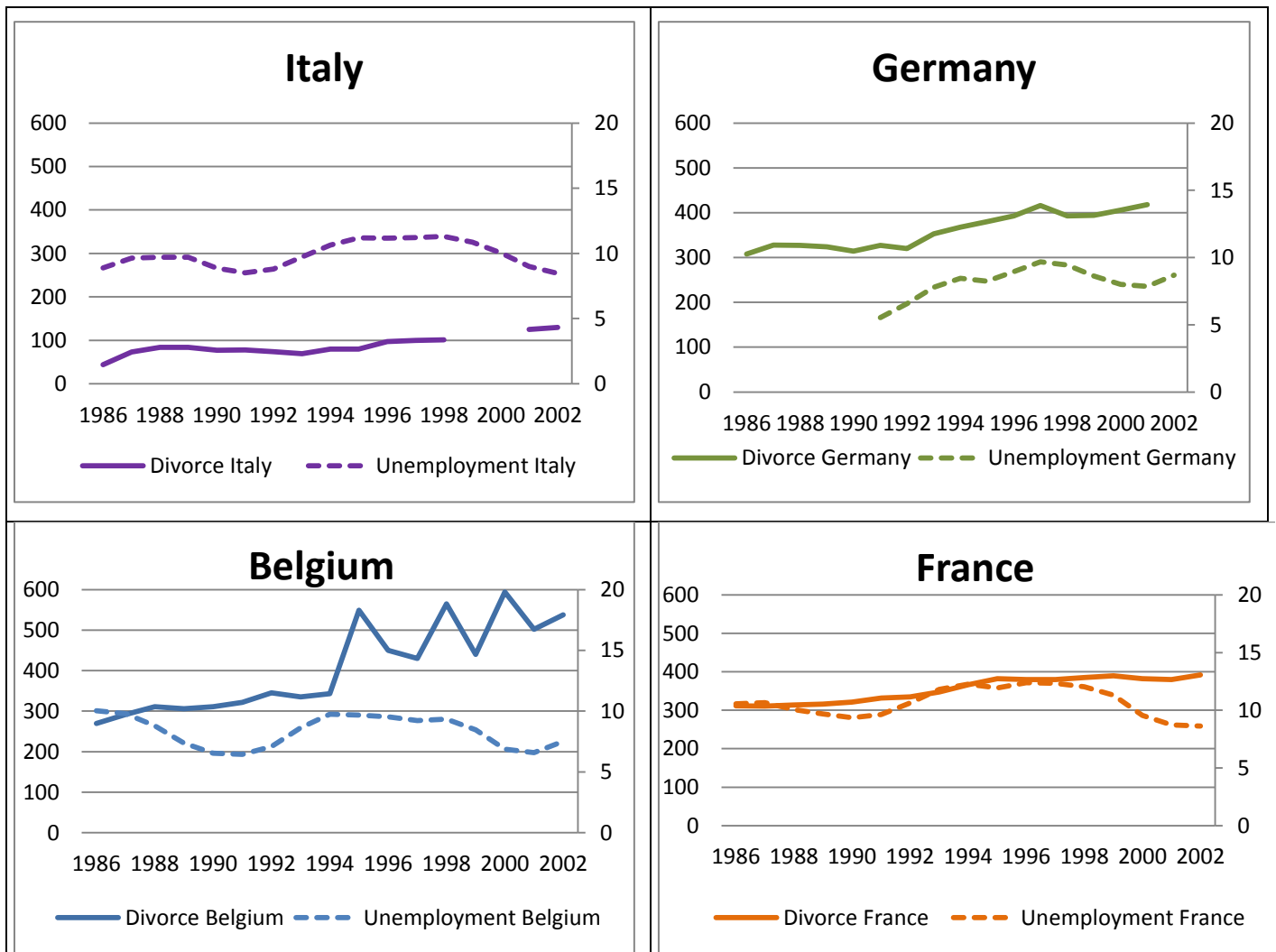
### **Countries context**

In all countries, the divorce rate has constantly risen over time (and also not shown the risk of dissolution of unmarried partnerships) quite gradually with some sharp increase (reaction to French legislation in 2005,

legislation changes in Belgium in 1994 and 2007) or deceleration however. Italy continues to be an outlier with an increasing but still largely lower divorce risk. Yearly unemployment is quite high during the nineties, especially in Finland and we observe a decreasing trend at the end of the nineties but an upturn with the recent crisis starting in 2008 in all countries except Germany.

If we look at a possible correlation between these trends (Figure 1), in some countries such as Italy and Germany, we find a rather contra-cyclical trend of divorce and economic growth: the divorce rate increases when the unemployment rate increases, whereas in other countries such as France and Belgium (and in Finland but to a lesser extent), there seems to be a reverse relationship: an increase in unemployment rate is concomitant to a rather decrease or slowdown of divorce rates. Of course these associations between macro-rates might be spurious and connected to many country specificities of both the economic situation such as the labor market, or the divorce legislation. We should then go further to fully understand the relationship.

**Figure 1:** Macroeconomic trends on unemployment rate and crude divorce rates





Sources: Yearly unemployment rate (OCDE database), Divorce index (Ined database)

### Data, sample and models

For each country, we use the most appropriate data available in the country to link the professional situation and the partnership history (restrospective data for Belgium, France and Italy, panel data for Germany and register data in Finland). We need to observe the current professional situation on a yearly base from couple formation until separation or the survey date. We select the following marital cohorts in each country: couples formed from the mid-seventies, no matter whether it is the first couple or a subsequent union, but a union rank (whether it is first or higher rank union) is added. A couple relationship is defined as one that lasted at least one year, whether married or unmarried. A couple dissolution is defined from the date of physical separation (since the partners do not live together anymore), rather than the legal divorce which may occur sometimes few years later (in some countries), and would involve timing and causality issues. The analysis is done separately on women and men.

First, we perform non-parametric models on the partnership duration to see the sole effect of the employment situation at the beginning of the union. We then use discrete time models (logit) on the couple duration, controlling for several covariates (some are time-varying TV): union duration and squared (TV), union cohort, union rank, union type - whether married or not (TV), age at union formation, education level, number of kids (TV), presence of a child under 3 (TV), and region when necessary (Italy and Germany). Our variables of interest are the individual situation (and unemployed status item), the unemployment rate on the period, and the interaction between unemployment rate and being unemployed.

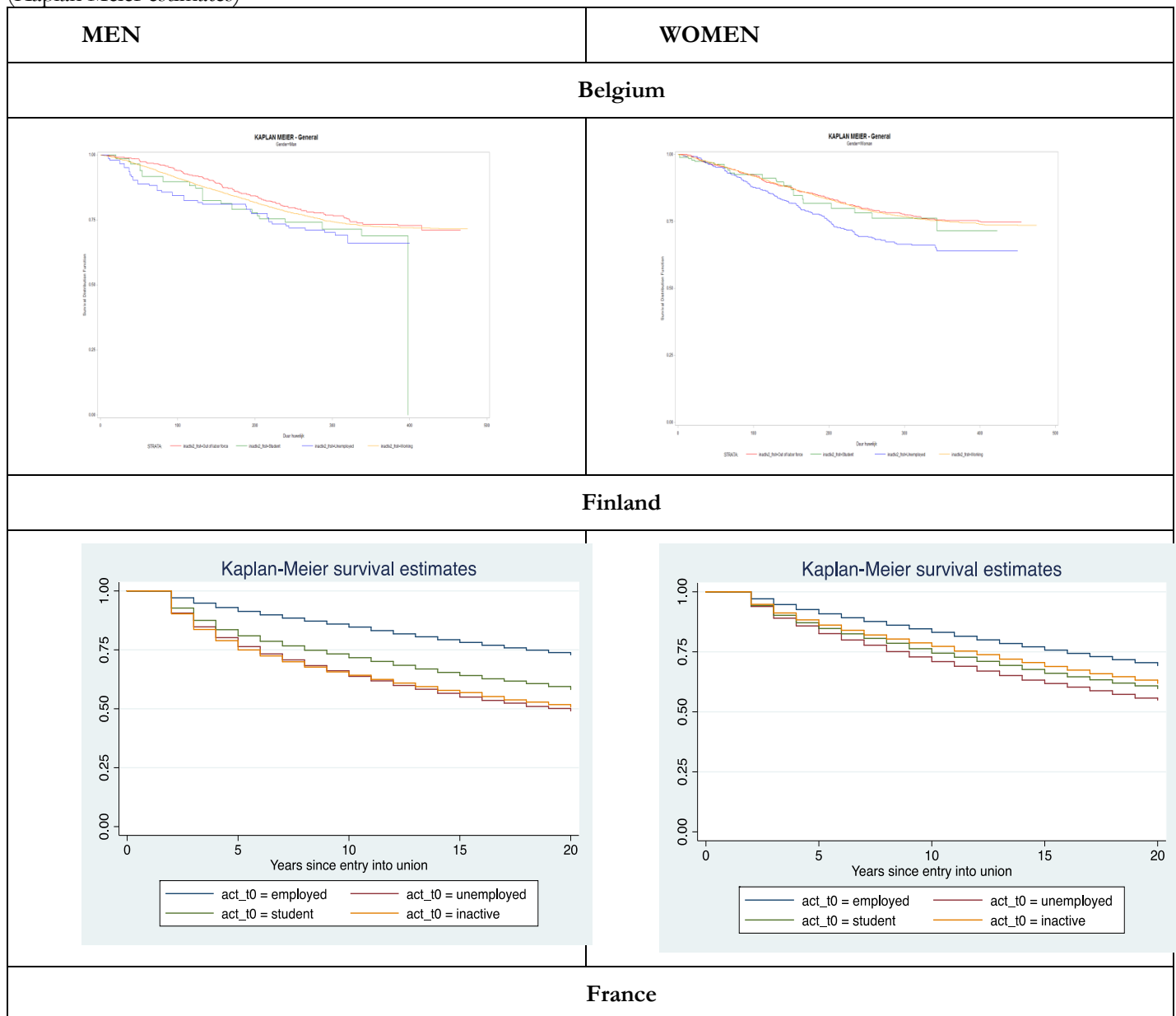
**Table 1:** Data description

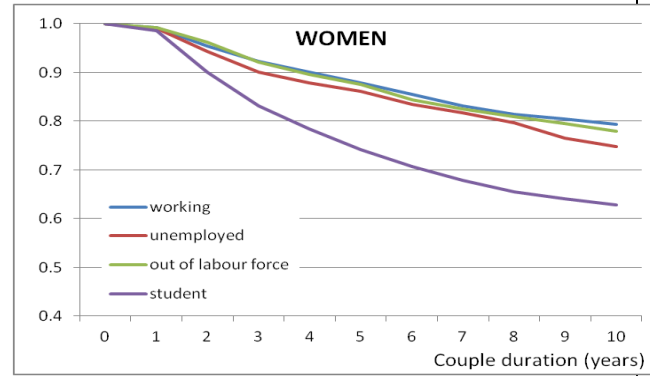
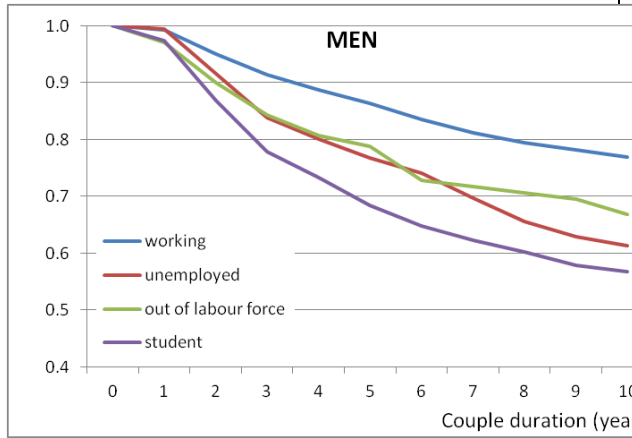
	Data (year)	Type	Size (events)	Sample specificity
France	Familles et employeurs (2004-2005)	Retrospective	M 4477 (1301) F 4889 (1389)	All couples
Belgium (Flanders)	Divorce in Flanders (2008)	Retrospective	M 1909 (410) F 2469 (488) In person months:	First marriage only

			M 454618 (410) F 584202 (488)	
Germany	GSOEP 1990-2013	Panel	F: 128183 person months (722) M: 107063 (552)	First partnership after entrance into panel started before age 30
Italy	Family and Social Subjects Survey 2009	Retrospective	M 8539 (1202) F 8823 (1169)	All couples
Finland	Family Dynamics in Finland (FDF)	Register data	273322 (74008)	All couples

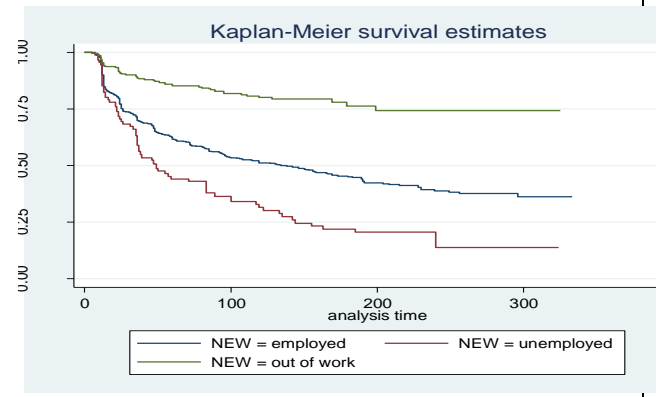
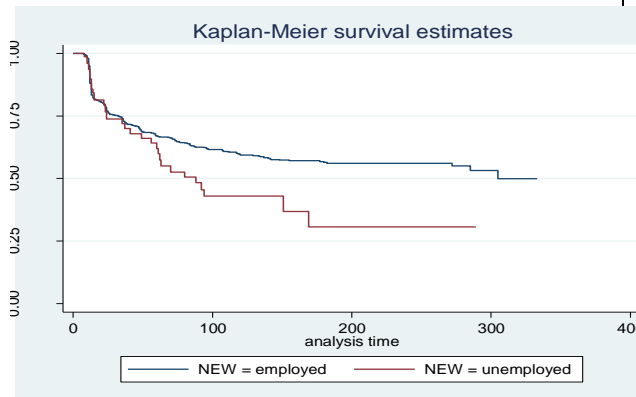
## Results

**Figure 2:** Union survival curves according to men's and women's professional situation at the beginning of the couple (Kaplan Meier estimates)

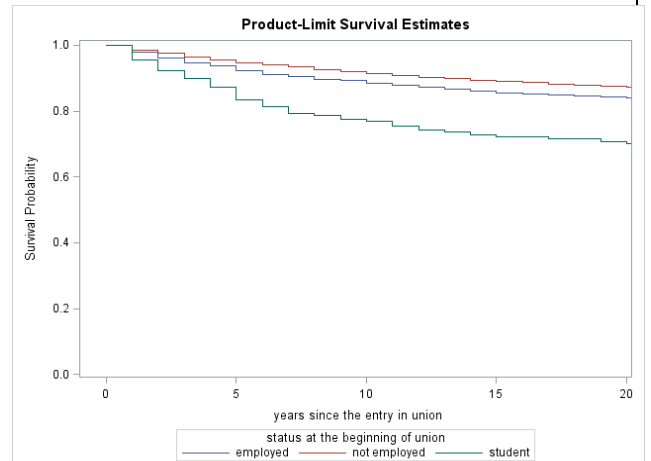
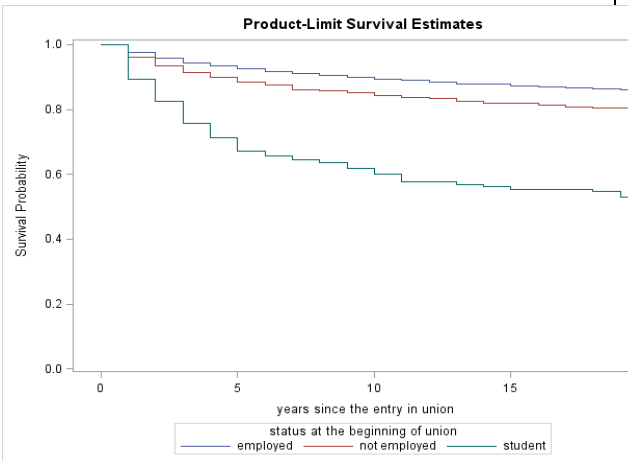




### Germany



### Italy



We found relatively standard effects for our control covariates (see table below): people who form a couple at younger ages are more likely to divorce. Couples who formed their unions in most recent periods are more likely to separate than previous union cohorts. First unions are more stable than second and higher unions (except in Italy). Married unions are less likely to be dissolved. We found a higher risk of divorce for lower educated (and probably more disadvantaged population) in all the countries except in France where there is almost no educational gradient, and Italy where it is the

contrary: higher educated (both men and women) are more likely to dissolve than those with a low level of education. This result has already been found in previous studies. As usual, we find a very protective effect of both having a very young baby and the number children. Of course this sheltering effect might come from selection since more stable couples decide to become parents or to extend the family.

The results for men show that unemployment increases the likelihood of divorce in all countries. The magnitude goes from 1.34 to 2.75. For women, the results are more mixed. The dissolution risk increases in Finland and Germany, but it decreases the risk of separation in Flanders and Italy<sup>1</sup>. No significant effect is found for France. These first results suggest that male unemployed status has still a larger effect on the dissolution risk than the female employment status, showing that male job status continues to play a greater role than those of women.

For the **effect of the economic situation**, and more precisely the unemployment rate, we find higher divorce risks in Finland and Italy during periods of high unemployment. With a balancing effect of our interaction term, however, in Finland, showing that there is a higher dissolution risk during a crisis but the individual stigma seems to be less strong when everyone is unemployed. For the other countries (Belgium and Germany), the probability to divorce is lower during recessions showing rather an expectation of individuals. The significant positive interaction term for Flanders shows that unemployed people in period of recession are even more likely to dissolve.

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<sup>1</sup> However, these results have to be taken with care since they are not fully comparable to the other countries for 2 different reasons. In Flanders, due to data limitation, only married couples are studied, that could be more traditional. In Italy unemployment could not be distinguished from inactivity



Table 2: Discrete time models on the dissolution risk

	Belgium (Flanders)		Finland		France		Germany		Italy	
	M	F	M	F	M	F	M	F	M	F
Union duration	1.01***	1.00***	1.25***	1.22***	0.95**	0.97	1.00	1.00	0.987	1.00
Union duration squared	1.00***	1.00***	0.99***	0.99***	1.00*	1.00	0.99***	0.99***	0.999	0.99**
Age at union formation	0.76***	0.81***	0.96***	0.97***	0.94***	0.94***	0.96***	0.97**	0.97***	0.97***
Union cohort (ref=75-84 /FI 90-97/GE 84-94)										
85-94/ FI 98-05	2.99***	1.07***	1.27***	1.20***	0.95	1.05			1.25***	1.49***
95-04/FI 06-12/GE 95-13	7.16***	1.26***	1.31***	1.25***	1.13	1.43***	1.43***	1.95***	1.54***	1.49***
Union rank (ref=first)										
higher order			1.52***	1.45***	2.02***	1.85***			0.90	0.74***
Union type (ref=cohabitation)										
married			0.43***	0.43***	0.31***	0.37***	0.16***	0.22***	0.16***	0.18***
Highest education (ref=low)										
secondary	0.87***	0.86***	0.89***	0.88***	1.06	0.97	0.84*	0.71***	1.29***	1.24***
tertiary	0.84***	0.81***	0.76***	0.79***	1.15*	1.07	0.65*	0.51***	1.57***	1.44***
Number of kids in the household (ref=0)										
1	0.45***	0.88***	0.87***	0.84***	0.82*	1.16	0.47***	0.63***	0.49***	0.74***
2	0.24***	0.71***	0.82***	0.75***	0.78*	0.99	0.36***	0.50***	0.48***	0.65***
3+	0.41***	0.91***	0.81***	0.69***	0.87	1.36**	0.32**	0.52***	0.48***	0.69**
Kid under 3 in the household (ref=0)										
yes	0.46***	0.50***	0.72***	0.72***	0.92	0.73***	0.33***	0.55***	0.70***	0.80**
Activity (ref=employed)										
unemployed/ IT not employed	2.75***	0.95***	1.94***	1.43***	0.55	2.45	1.36*	1.56***	1.60***	0.859
student			1.20***	1.23***	1.13	0.96	1.12	1.25**		
other (inactive)	0.8***	0.63***	1.73***	1.30***	0.53	0.90	1.48*	0.60***		
Macro yearly unemployment rate by sex and age (in 5 year groups)	0.84***	0.87***	1.02***	1.01***	0.98	1.01	0.90***	0.98	1.01	1.02***
Interaction Unemployment rate*unemployed	1.03***	1.00***	0.99***	0.99***	1.13	0.93			1.00	0.99
COUNTRY SPECIFIC:										
Area of Residence (ref: IT North/GE West)										
IT Center/ GE East							2.01***	1.12792	1.087	0.924
South									0.782**	0.60***
Migration Status (ref=migrant)										
No migrant							1.62**	1.50***		

Discrete time models controlled for union duration and squared, union cohort, union rank, union type (married or not), age at union formation, education level, number of kids, presence of a child under 3, region if necessary.

<sup>a</sup> for Italy, the data do not allow to disentangle unemployment from inactivity at the micro-level.

### Concluding remarks

We find quite standards results on control covariates about children, education, union cohort, showing that divorce has quite similar patterns (determinants are very similar) in all countries. However, Italy might be an outlier since it has some specific characteristics (education). Italy is the country with the lowest rate of divorce, the diffusion of divorce is still growing. These findings might indicate that divorcees are still a more selective group than in other countries.

Concerning the micro-effect, unemployment increases the probability of dissolution for men in all countries. It seems that the end of the main provider status affects the union stability. For women, the effect is always reduced and sometimes not significant, showing that male job status continues to play a greater role than women's employment status as most previous work showed. Ström (2003) advanced several reasons why unemployment of women might affect less union stability. Women are more likely to develop social networks outside paid work than men. Unemployment may reduce their double burden of a paid and unpaid work. Third, unemployment may be considered as "more acceptable" for women because of the traditional gendered division of work. However, we can ask whether this last assertion is still valid with the development of dual-earners couples. It might explain why in Finland, a country with very high female employment rate, unemployment is as damageable for men as for women.

Macro-unemployment effects are country specific, positive for Finland and Italy, or not significant at all in other countries. Concerning our interaction effect, first results rather support a compensation effect when significant showing that the usual stigma of being unemployed may be reduced when the unemployment rate is high but not everywhere (to be confirmed).

Then macro-unemployment effects seems to be more country-specific than individual unemployment, probably because norms attached to being unemployed are different. Many other aspects such as the unemployment protection, the trust in future and economic recovery (whether people are more or less pessimistic), the importance of work (values) might differ and we should continue to investigate in these directions.

## References

- Amato P. R. Beattie B. 2011 , "Does the unemployment rate affect divorce rate? An analysis of state data 1960-2005", *Social Science Research*, 40: 705-715.
- Boheim R. Ermisch J. 2001 Partnership dissolution in the UK—the rôle of economic circumstances, *Oxford Bulletin of Economics and Statistics* 63 (2), 197-208
- Charles K., Stephens M. 2004, "Job Displacement, Disability, and Divorce", *Journal of Labor Economics*, April 2004, vol.22, n.2, p.489-522
- Fischer, Tamar and Aart C. Liefbroer. 2006. For Richer, For Poorer: The impact of macroeconomic conditions on union dissolution rates in the Netherlands 1972-1996, *European Sociological Review* 22(5): 519-532.
- Hansen, Hans-Tore. 2005. Unemployment and marital dissolution: a panel data study of Norway, *European Sociological Review* 21(2), 135-148.
- Hellerstein, J. K., & Morrill, M. S. (2011). Boom, busts, and divorce. *The B.E. Journal of Economic Analysis & Policy* 11 (1). 1-26. doi 10.2202/1935-1682.2914

Jalovaara, M. "Socio-economic Status and Divorce in First Marriages in Finland 1991-93". *Population Studies* 55.2 (2001): 119–133.

Jensen P., Smith N. (1990), « Unemployment and marital dissolution », *Journal of Population Economics*, 1990, n°3, p215-229.

Kraft K. 2001, "Unemployment and the Separation of Married Couple", *Kyklos* vol 54, 67-88.

Kraval, Ø. (2002): The impact of individual and aggregate unemployment on fertility in Norway. *Demographic Research* 6: 263–293.

Kreyenfeld, M.; Andersson, G. (2014): Socioeconomic differences in the unemployment and fertility nexus: Evidence from Denmark and Germany. *Advances in Life Course Research* 21: 59-73.

Norberg-Schönfeldt M., "The role of Unemployment in the Commitment Dissolution Decision among Young Swedes", *Umeå Economic Studies*, n°707

Pailhé, A.; Solaz, A. (2012): The influence of employment uncertainty on childbearing in France: A tempo or quantum effect? *Demographic Research* 26 (1): 1–40

Schaller J. 2013, "For richer, if not for poorer? Marriage and divorce over the business cycle" *Journal of Population Economics* , July 2013, Volume 26, Issue 3, pp 1007-1033

Schmitt, C. (2012): A cross-national perspective on unemployment and first births. *European Journal of Population*, 28: 303–335.

Ström S. (2003), Unemployment and Families: A Review of Research, *Social Service Review*, Vol. 77, No. 3 (September 2003), pp. 399-430