

Low Fertility, Economic Change and Unemployment during the Interbellum Period

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In their recent paper, Schellekens and van Poppel (2012) show that a very high proportion of the decline towards low fertility in the 1930s in the Netherlands can be explained by economic change, “leaving little room for attitudinal change” (p.965). More specifically, their results “indicate that unemployment was a major contributing factor to relatively low fertility in the 1930s” (p.983). The question remains to what extent this conclusion holds for European countries more generally, especially taking into account that the Netherlands experienced a notably late fertility transition (Van Poppel 1983). The aim of this contribution is to shed some light on the matter with descriptive data, hoping to stimulate more sophisticated analyses in the future. Ideally, to guarantee high quality, these would be supervised by Frans van Poppel.

During the interwar period, demographers did not attribute low fertility to economic crisis. On the contrary, they generally linked it to continuing economic growth and increasing standards of living (Van Bavel 2010). Although unemployment soared during the Great Depression, this was not considered a major explanation for low fertility. In the judgment of Carr-Saunders (1936), “[a]s a motive for keeping the size of family small the fear of unemployment is probably far less important than the ambition of parents for their children” (p. 249).

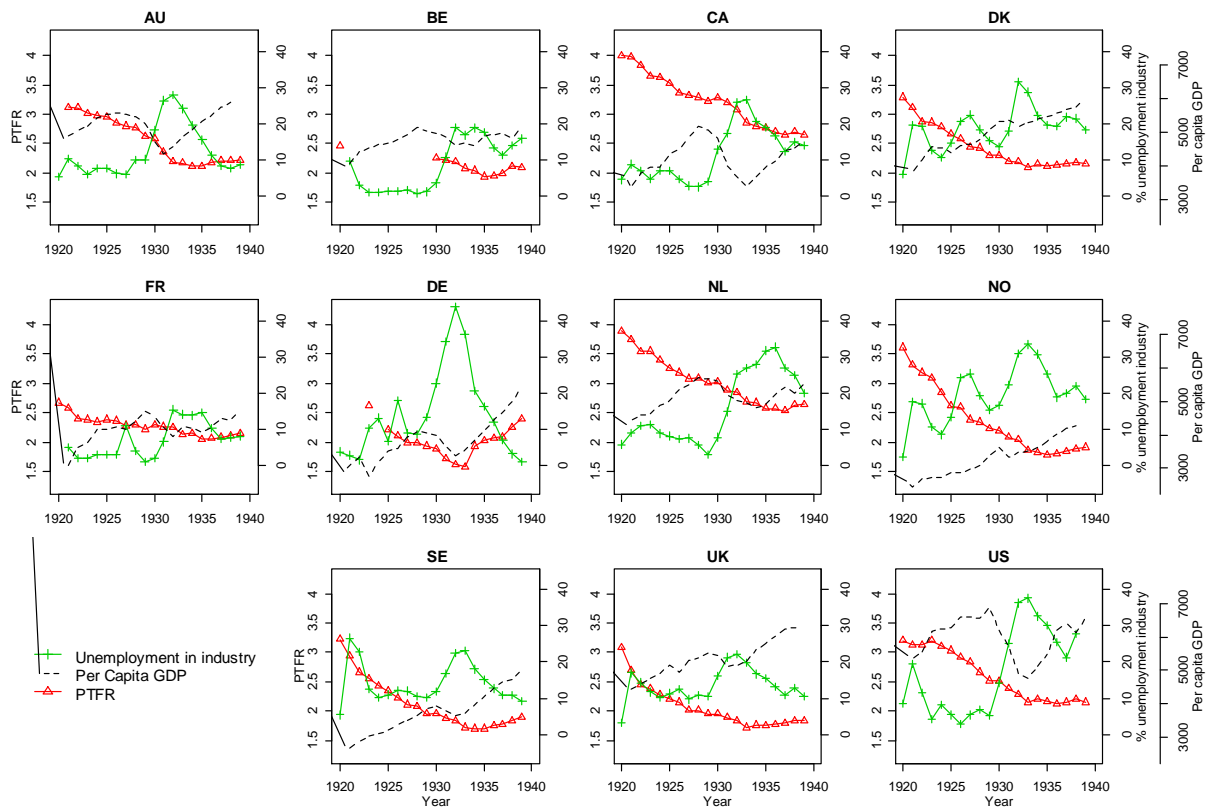
Empirically, demographers and economists have shown that economic indicators and fertility strongly correlated. However, the positive correlation between economic indicators and fertility only holds for the short-term ups-and-downs, not for the long term trends. “The surface waves are indeed much influenced by economic fluctuations, but the underlying tide appears to be an independent and surprisingly stable force” (Kirk 1960: 254).

Figure 1 graphs unemployment rates, per capita GDP and period total fertility rates (PTFR) for 11 OECD countries for the interwar year. These figures suggest that the mid-term fertility trend, in contrast to the short-term ups-and-downs, was not governed by unemployment or by the growth of the economy. For example, all countries exhibit declining fertility during the 1920s, irrespective of the level of unemployment in industry and the growth of GDP per capita. And in all countries, the decline of fertility halted in the latter part of the 1930s, irrespective of the severity of the economic crisis, as indicated by high unemployment and a slackening or even declining GDP.

Figure 2 plots the mid-term relations between economic indicators and fertility in a more systematic way for the same 11 countries. The two graphs in the first column display the relationship between the average net reproduction rate for the years 1930-35 on the vertical axis and average economic indicators for the same years on the horizontal axes. There is no correlation whatsoever between average net reproduction and unemployment (panel A). For example, Canada and the Netherlands had about the same level of unemployment as England and Australia during these years, even though the former two countries had much higher reproduction rates. In the same vein, during the first half of the thirties, there was no

correlation between the average net reproduction rates and the average level of GDP per capita (panel C).

Figure 1. GDP per capita, unemployment in industry, and period total fertility rates in a range of Western countries, 1920-1939 (standardized scales)

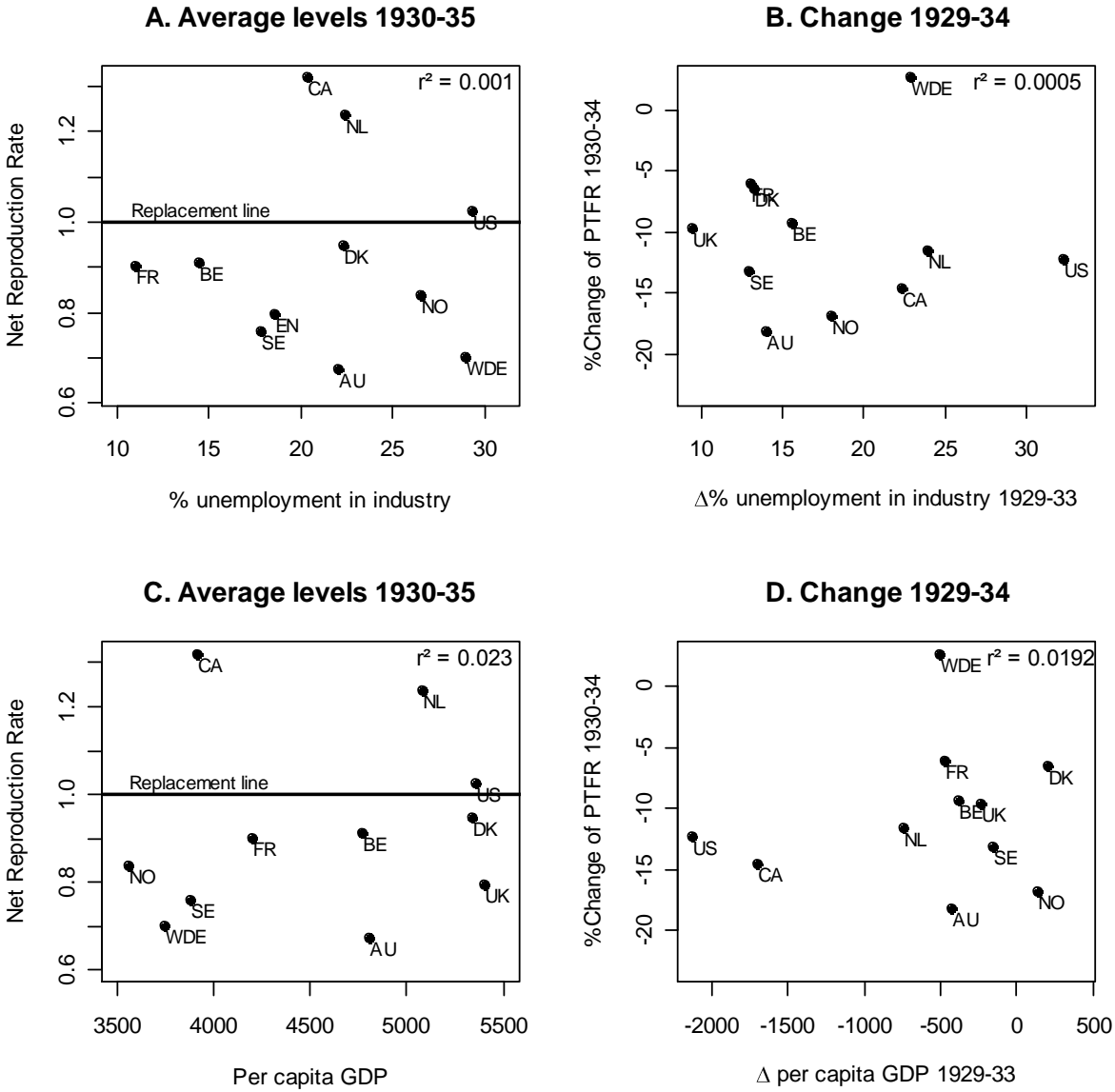


Sources:

- Unemployment in industry: Eichengreen and Hatton (1988)
- Per Capita GDP: Maddison (2003)
- PTFR: same as Figure 1 in Van Bavel (2010).

Maybe the *change* rather than the level of the economic indicators mattered? Maybe people drastically restricted their fertility in response to worsening economic conditions, irrespective of the level they were used to? The scatter plots on the right hand side of Figure 2 show that this explanation is deficient as well. The *drop* of total fertility during the early 1930s was also not correlated with the mid-term *change* of the economic indicators during the Great Depression. For example (see panel B), unemployment rose much faster in the Netherlands, Western Germany and particularly in the US than in Australia or Norway, even though the rate of decline of fertility was stronger in the latter two countries. Or, (see panel D) even though the GDP per capita dropped in the US, the Netherlands, and France while the GDP continued to grow somewhat in Norway, fertility fell more rapidly in the latter country than in the former group of countries.

Figure 2. Net Reproduction Rates by unemployment in industry and GDP per capita (average levels in 1930-35); change in TFR by change in unemployment and GDP per capita between 1929 and 1934*



* Change in unemployment in industry calculated as the difference between unemployment in industry in 1933 and 1929 in percentage points; the change in GDP was calculated as the difference between the figures for 1933 and 1929; the change in TFR was calculated as a relative difference: the absolute difference in TFR between 1934 and 1930 divided by the TFR for 1930. Sources: same as Figure 1

Western Germany (WDE) is an outlier due to the fact that, according to retrospective estimates based on official census data, the TFR jumped upward when the Nazis came to power. If Germany is removed from the picture, the correlation remains very low and not statistically significant.

References

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