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**Interim Report** 

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## Young Adult Failure to Thrive Syndrome

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## **Abstract**

Many young working age adults in developed countries are failing to thrive in economic, demographic and social terms. Their *failure to thrive* is a relatively new phenomenon that has not been widely recognized, but it affects young adults in virtually all the more developed countries for which we have relevant data. Young adults nowadays are more often in poverty. They are leaving their parental homes at ever later ages and in some countries the frequency of psychological problems increased. The seriousness of failure to thrive syndrome is reflected in the relationship between relative economic conditions and increased suicide rates. The syndrome is important because young adults are at the prime ages for finding employment, establishing long-run career paths and building an economic basis for founding a family. Developing strategies to arrest the spread of failure to thrive syndrome among young adults, in order to keep them vibrant contributors to our societies, should be a priority for policy makers.

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## Young Adult Failure to Thrive Syndrome

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The period of transition from one's family of origin to independent adult life is a crucial one. This is the stage at which young adults make decisions about schooling, housing, careers, conjugal partnerships and childbearing – decisions that will have a long-term effect on their wellbeing and through demographic change the fiscal sustainability of national economies. If they fail to thrive at this critical phase of their life cycle, their ability to develop to their fullest potential in later adult life could be reduced.

In some countries this syndrome has already been recognized. In Italy, the novel "Generazione mille euro" gave a name to a generation and spawned a movie and a popular website (*New York Times* 2006; Incorvaia and Rimassa 2006; www.Generazione1000.com). The 1,000 Euro generation is composed of young people, many of whom are quite educated, who live on low and insecure incomes and who have difficulty in finding a long-term stable job. In France, this generation is known as "Génération précire" (*Newsweek* 2007). In Spain, the members of this generation are called "mileuristas" (*Guardian* 2008). In Germany, these young people belong to "Generation Praktikum" (Hommerich 2009). In Japan, they are known as "freeters" (Hommerich 2009). All over the developed world, young adults are failing to thrive.

In each country, there are specific explanations of why the young are having such difficulties. We show here that these local explanations of young adult failure to thrive syndrome miss an essential point. The syndrome is a worldwide phenomenon that is evident at least from the 1980s onward. Although national characteristics certainly play a role in modifying its extent, they cannot explain its appearance in so many countries.

In this report, we provide evidence for the failure to thrive syndrome. We begin in Section 1 by discussing the decline in the relative economic conditions of young adults. As seen in Section 2, this deterioration is reflected in increases in their suicide rates. Section 3 explains how life satisfaction, marriage, divorce, fertility, and health are all affected by changes in relative economic conditions. Section 4 discusses the relative decline in female subjective wellbeing and shows that it is consistent with the failure to thrive syndrome. The final section contains our concluding thoughts.

# 1 Declining Relative Economic Conditions

We define "young adult" in a broad sense, from around ages 15 to 40. We use this extended life phase because it includes most transitions to adulthood – completing an education, establishing a career path, finding a stable job, identifying a partner, establishing a stable union and becoming a parent.

There is no single correct measure of relative income because there a number of ways of measuring income and a variety of standards against which to compare it. Therefore, in this section, we look at relative incomes from a number of viewpoints and show that young adult failure to thrive syndrome shows up in all our measures.

Young adult failure to thrive syndrome is a general phenomenon in developed countries. One way to see this is to consider the relative poverty of young adults. The OECD has computed the relative poverty rates by age for subsets of its countries (OECD 2008). For the average of seven countries (OECD-7), data are available for the mid-1970s, the mid-1980s, the mid-1990s, around 2000, and the mid-2000s. For the average of 23 countries (OECD-23) information is available only from the mid-1980s onward. Figure 1 shows the data for 26 to 40 year olds and for 51-65 year olds. Relative poverty is defined as an individual having a cash income less than 50 percent of the median cash income in the person's country.

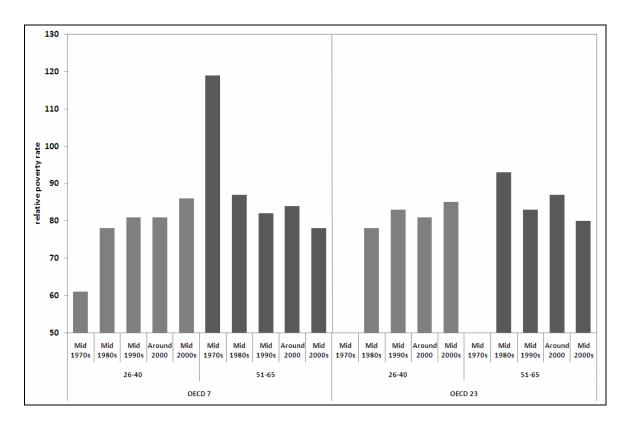


Figure 1. Relative poverty rates in selected OECD countries from the mid-1970s to the mid-2000s. Source: OECD (2008: 132) and http://dx.doi.org/10.1787/422163541278.

*Notes*: 100 = poverty rate for the country in the indicated period.

Relative poverty rates are ratios of age-specific poverty rates to national ones. People in poverty have incomes below 50 percent of the national median income.

OECD 7 includes average of Canada, Finland, Greece, the Netherlands, Sweden, the United Kingdom, and the United States.

OECD 23 includes average of all OECD countries except Australia, Belgium, Iceland, the Republic of Korea, Poland, the Slovak Republic, and Switzerland.

In the mid-1970s, the relative poverty rate for the OECD-7 was 61 (national poverty rate = 100) for the 26-40 year olds and almost double for the 51-65 year olds. By the mid-2000s the relative poverty rate for the 26-40 year olds had risen to 86, while for the 51-65 year olds it had fallen to 78. The relative poverty rate fell dramatically for the 51-65 year old population, while it rose considerably for the younger people. The pattern that we see in Figure 1, a rise in the data for the younger adults from the mid-1970s through the mid-1990s, a leveling off, and then a continued rise in the early years of the 2000s, will be broadly replicated in other measures of relative income. The picture from the OECD-23 is basically the same. In the mid-1980s, there was more relative poverty among the 51 to 65 year olds than among the 26 to 40 year olds. By the mid-2000s, the situation was reversed (OECD 2008).

The OECD findings on worsening relative conditions for the young are consistent with other findings. For example, in the US, poverty in the 1960s was higher among the 65+ than among the youth, but this reversed in the 1970s. By 2007 youth poverty rate was 18.0 percent, while poverty rates among the 18-64 year olds was 10.9 percent (US Census Bureau 2008). It is also consistent with evidence from Statistics Sweden, which shows that between 1980 and 2003, the share of Swedish 20-24 year olds who reported having health problems increased from 7 percent to 10 percent, while for the 60-64 year olds the share decreased from 41 percent to 36 percent. Individuals in their 20s were less likely to have access to cars in 2003 than in 1980, and available living space decreased for the young. Between 1980 and 2003, the number of individuals per 100 rooms increased from 59 to 65 for 20-24 year olds, while it decreased from 41 to 34 for the 60-64 year olds (Vogel and Råbäck 2004).

Young adult failure to thrive syndrome has developed differently for the two sexes, so it is useful to show what has happened to their relative incomes separately. Table 1 shows changes in percentages of 26-30 year old men and women in Belgium, West Germany, Italy, the UK, Canada, and the US, who have incomes above 50 percent of the national median adjusted income. The data cover roughly a period of a decade and a half from the mid-1980s to around the turn of the century. All figures are adjusted for family size by dividing incomes by the square root of the number of people in the household.

Table 1. Percent point change in the number of 26-30 year olds who have the indicated variable above 50 percent of the national median adjusted disposable income, 1994-2000. Source: Bell et al. (2007: Tables 6 and 8). Original data: LIS (2010).

Country	Starting- ending date		come adjusted	Average family income adjusted for family size		
		Males	Females	Males	Females	
Belgium	1985-1997	-13	5	-8	-4	
W. Germany	1984-2000	-10	-3	-4	-6	
Italy	1987-2000	-15	9	-2	-2	
UK	1986-1995	-6	13	-1	-5	
Canada	1987-1997	-5	3	-3	0	
USA	1986-2000	1	6	0	0	

The left two columns of Table 1 show the percentage point change based on individual wage and salary incomes. In five out of six countries, the change was positive for women and negative for men. Taken as individuals, women's relative incomes improved over the period covered in the table and men's relative incomes deteriorated. These are well known findings and on their face they appear to indicate that only young men were failing to thrive.

The right two columns indicate what happened to the incomes of the families in which the young men and women were living. The percentage point change in the percentage of 26-30 year old men who lived in families with adjusted personal incomes above 50 percent of the national median adjusted personal income was negative in five out of the six countries and zero in the US. For females, we see decreases in four out of the six countries and no change in the other two. When we consider men and women in family units, rather than as individuals, we see that both experienced declines in their joint economic resources even taking household economies of scale into account. The deterioration in the economic conditions of young men more than outweighed the improvement for young women.

In Table 2, we focus on the relative economic conditions of young men in 14 developed countries and in Taiwan. We present ratios of the median earnings of 25-34 year old men to the median earnings of 45-54 year old men. The medians are computed only over those with earnings. We have gathered data from surveys in the 1980s, 1990s, and early 2000s. In 13 of the observations the ratio of median earnings of the younger to older men decreased from the 1980s to the early 2000s, indicating a long-run deterioration in the relative economic condition of young men. This deterioration was not monotonic. In a number of places, there was some improvement in the relative economic conditions of young men from the 1990s to the early 2000s.

Table 2. Median real gross or net earnings for 25-34 and 45-54 year old men and their ratio from the 1980s through the early 2000s. Sources: LIS (2010); OECD (2007).

Country	Year	Earnings		Wage Ratio
		25-34	45-54	vvuge Ruelo
Australia**	1980s	100	100	99
	1990s	100	109	87
	early 2000s	111	126	91
Belgium*	1980s	100	100	85
	1990s	107	113	80
	early 2000s	122	127	82
	1980s	100	100	83
Canada	1990s	86	100	72
	early 2000s	90	101	74
Denmark	1980s	100	100	93
	1990s	96	103	87
	early 2000s	100	108	87
Finland	1980s	100	100	86
	1990s	102	107	83
	early 2000s	124	120	89

	1980s	100	100	85
France*	1990s	93	105	75
	early 2000s	92	103	75
	1980s	100	100	93
Italy*	1990s	93	106	81
	early 2000s	92	106	80
	1980s	100	100	87
Luxembourg*	1990s	126	153	73
	early 2000s	140	180	68
	1980s	100	100	85
Netherlands	1990s	104	113	78
	early 2000s	103	113	77
	1980s	100	100	91
Norway	1990s	97	104	85
	early 2000s	115	121	87
	1980s	100	100	107
Spain*	1990s	85	117	78
	early 2000s	94	131	77
	1980s	100	100	86
Sweden	1990s	106	110	83
	early 2000s	131	131	86
	1980s	100	100	100
Taiwan	1990s	172	196	88
	early 2000s	180	212	85
	1980s	100	100	95
UK	1990s	116	120	87
	early 2000s	129	136	85
	1980s	100	100	77
US	1990s	83	97	66
	early 2000s	88	98	70

*Notes*: Average figures from surveys in the 1980s = 100.

Wage ratio is defined as median wage for males aged 25-34 over median wage for males aged 45-54.

Easterlin (1980) suggested that the ratio of the incomes of young men to the expectations that they formed about what was a satisfactory lifestyle when they were young would be related to demographic outcomes. Unfortunately, there is not enough comparable economic data to create this measure of relative income both over time and across a wide variety of developed countries. There are, however, data for the United States. Macunovich (1998) provides data on the average earnings of young men in their first five years of work experience relative to the income of families with heads aged 45-54 years five years earlier. For both Whites and African-Americans, relative incomes

<sup>\*</sup> countries for which net income was only available.

<sup>\*\*</sup> data on gross income in Australia comes from OECD (2007).

fell from 1970 to the mid-1980s, rose a bit to 1990 and then fall again to the mid-1990s. In Figure 1 above, we saw some deterioration in the relative income of the young from the beginning of the 2000s to the middle of the decade. Further, the current climate of economic weakness in many developed countries seems likely to exacerbate the decline in the relative incomes of the young. In the US, the employment population ratio for men 25 to 29 was 89.3 percent in April of 2000 and fell by 11.4 percentage points to 77.9 percent in April 2010. The employment population ratio for 50 to 54 year old men started out at 85.2 percent in April 2000, which is lower than the rate for the younger men. By April 2010, the rate had fallen only 6.5 percentage points to 78.7 percent and was then higher than the rate for the younger men.

Economic downturns in the 1990s resulted in less hiring and staggering increases in unemployment among young men in particular (EU 2009). Evidence from the "Big 5 crises" – Spain, Sweden, Finland, Norway and Japan – shows that unemployment problems for men aged 15-24 may remain for years after the economy begins to grow again (Reinhart and Rogoff 2008; Verick 2009). For example, during the Swedish crisis around 1990, unemployment for men aged 25-54 rose from 1.1 percent to 9.3 percent, while unemployment among 15-24 year old men rose from 3.9 percent to 26.1 percent. In Finland, where GDP collapsed by 14 percent from 1990 to 1993, unemployment grew from below 10 percent to a peak of 31.5 percent in 1994 for young Finnish men – twice the level experienced by the prime age group. Youth unemployment in Finland only slowly decreased. Even by 2008 youth unemployment had not reached the pre-crisis level, although GDP per capita surpassed its pre-crisis level in 1997 (Verick 2009).

Cross-sectional measures of the economic conditions of the young, informative as they are, miss an important element. Not only has the economic situation of young adults worsened on average, but their economic insecurity has also increased. Economic insecurity is difficult to quantify and presenting the details of studies that measure them is beyond the scope of this paper. Farber (2007) found increasing job insecurity in the US. Genda (2006) in his aptly titled book, *A Nagging Sense of Job Insecurity: The New Reality Facing Japanese Youth*, found it in Japan. Mills et al. (2005) found it in 14 countries: Germany, Netherlands, France, Sweden, Norway, Hungary, Estonia, Britain, Canada, the United States, Mexico, Italy, Spain, and Ireland. Studies with less age specificity for the US also show increases in income insecurity (Moffitt and Gottschalk 2002; Hacker 2008; Hacker et al. 2010).

Younger age groups have recently taken the brunt of welfare, pension and labor reforms. The "last in, first out" principle, advocated by many unions, worsens the employment stability of younger workers, while seniors are more sheltered from economic fluctuations (Oswald 1987). Decreasing incomes and increasing economic insecurity at younger ages are likely to have long term effects. Those who suffer relatively low wages at younger ages are likely to be "scarred" for life, implying that their risk of unemployment and their wage levels will be lower at higher ages than cohorts who experienced less difficult labor market conditions in their youth (Arulampalam et al. 2000; Gregg and Tominey 2005). Evidence from surveys reveals that key prerequisites for family formation and childbearing are a sufficiently high income, reasonable housing and even more importantly: stable employment with longer term prospects (Andersson 2000; Koytcheva and Philipov 2008; Kravdal 1999). The young may choose to postpone or not enter parenthood altogether if their income is too

low. Age-earnings curves that peak late in life can make family formation difficult, and the slope of earnings curves are associated with postponed fertility (Van Bavel 2010). Not only have the relative incomes of young adults tended to decrease, so have their relative wealth (Jappelli and Pistaferri 2000; Haffner 2004; Klevmarken 2006).

In this section, we have presented evidence from a wide variety of sources. They all tell a consistent story: The economic conditions in which young adults find themselves have gotten more difficult, affecting their ability to thrive.

### 2 Suicide

One of the most striking indicators of the young adult failure to thrive syndrome is the negative correlation between changes in the wage ratios for young adult men and changes in their suicide rates. This is shown in Figure 2. The data are for the three periods and cover the 14 countries in Table 2. The correlation between changes in the wage ratios and suicide rates is -0.7. Without the two outliers, Luxembourg 80s-90s, and Spain 80s-90s, the correlation is -0.57. Both correlations are statistically significantly different from zero (95 percent confidence).

All the indicators of young adult failure to thrive syndrome are imperfect to some degree. This is also the case for suicide rates. We need to be cautious about how we treat the extent of decline from 1985-89 to 2000-04. It is possible that some of the decline in suicide rates in that period was due to the introduction of more effective medications for treating schizophrenia, depression, and bipolar disorder and to stronger anti-suicide programs that were put in place in the late 1980s and early 1990s because of substantial increases in suicide rates that had recently occurred.

The worsening economic conditions of young men alone do not, by themselves, provide strong evidence for the failure to thrive hypothesis. In theory, it is possible that the deteriorating relative economic conditions of the young men were, for the most part, something that was chosen by them. This argument starts from the idea that the young men wanted a period of prolonged experimentation in which they were "finding themselves." In this period of experimentation, it could be argued that the young desired the freedom to find a career path in a more leisurely manner. If this argument were true it would be hard to understand why having voluntarily chosen worse relative economic conditions, young men would have chosen to commit suicide more often.

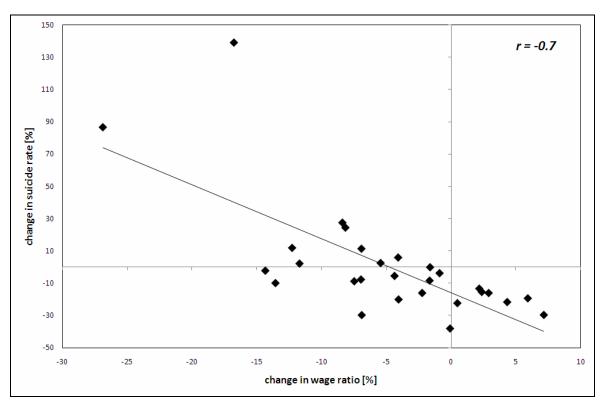


Figure 2. Relative changes in the wage ratio and relative changes in the suicide rate of men ages 25-34. Sources: Data on earnings: OECD (2007); LIS (2010). Data on suicide: WHO (2010).

*Notes*: Countries are Australia, Belgium, Canada, Denmark, Finland, France, Italy, Luxembourg, the Netherlands, Norway, Spain, Sweden, United Kingdom and United States. Wage ratio is in Table 2.

Relative change in the wage ratio is 
$$(wage \ rate()) - (wage \ rate())$$
.

Correlation without the two outliers – Luxembourg 80s-90s; Spain 80s-90s – is -0.57 and is also statistically significant (at the 95 percent level – p-value=0.0022).

## 3 Relative Incomes and Demographic Behavior

In this section, we look at cross-sectional studies that relate relative incomes and demographic behavior. Relative wages have been found to be strongly related to an individual's well-being and to matter more than absolute income levels (Clark and Oswald 1996; Grund and Sliwka 2003).

In Section 2, we showed that in a group of developed countries changes in the suicide rates of young men were negatively correlated over time with changes in their relative incomes. A recent cross-sectional study based on county-level data from the US (Daly et al. 2010) finds a robust correlation between relative incomes and suicide rates for adults 20-64. The incomes that were used are predicted family incomes based on the characteristics of individuals. They were measured relative to county-level family incomes. This cross-section confirmation of our time series results is important because in the time series results, we could not control for the effects of increased use of psychotropic medications. So even though the Daly et al. (2010) study does not focus on young men, its consistency with our time series results strengthens our confidence in them.

Among young adult males, generally those with lower incomes are less likely to be married than those with higher incomes. Watson and McLanahan (2009), using US data, find that the relative income of young men is an important determinant of whether or not they are married. Men with higher relative incomes were more likely to be married. This effect is consistent with the international data on headship rates in Bell et al. (2007: Table 1).

Surveys from several industrialized countries suggest that women perceive their partner's income to be more important than their own wages when it comes to family formation. The *Japanese National Survey on Work and Family* (2007) shows that as a precondition for marrying for those aged 25-34, the partner's income level is "not very important" or "not important at all" for 69 percent of the men, but only among 5 percent of the women. Even in Norway, which had one of the world's highest female labor force participation rates (79 percent in 2008), a 2008 survey finds that 7 out of 10 women prefer that the man is the main breadwinner of the family (NRK 2008; OECD 2010). Liu and Vikat (2004) studied the effects of differences in the ratio of husband's to wife's earnings in Sweden. They found that the higher that ratio, the lower the probability of divorce. The role of relative income in affecting demographic variables was introduced by Easterlin (1966). A survey of the tests of the relationship between relative income and fertility (Macunovich 1998) found that most of the studies were consistent with Easterlin's view that the relative income of young men influenced fertility.

Relative income also affects mortality and morbidity. Eibner and Evans (2005) combine a number of US datasets to analyze the effects of what they call relative deprivation on both deaths and disease prevalence and health habits. They found that there is a positive and statistically significant association between their measure of relative deprivation and the person dying within the subsequent five years (p. 615). A register based study of 1.68 million men and women in Norway (Elstad et al. 2006) found that income relative to that in the surrounding residential area was negatively related to mortality risk for people with low absolute incomes living in places with

20,000 or more inhabitants. For people with high absolute income, there was no effect of relative income.

Changes in relative economic circumstances have many consequences, but they are not the main causes of many of them. For example, mortality and morbidity are affected by relative economic conditions and many other factors as well. Government policies can affect relative economic conditions and their resulting effects.

# 4 Failure to Thrive Syndrome and the Subjective Wellbeing of Women

Failure to thrive syndrome manifests itself differently among young men and young women. Indeed, it seems a bit odd to even raise the possibility of a failure to thrive syndrome among young women. The last decades seem to have been a golden age for them. Their labor force participation rates rose dramatically and in many developed countries are almost as high as for men. Wage rates for young women, although still below those of young men, have risen. The proportion of young women in colleges now exceeds the proportion of young men, and young women now make up an ever increasing share of young professionals. It is, therefore, quite paradoxical that measures of subjective well-being show that the happiness of women in the US has declined both absolutely and relative to that of men (Stevenson and Wolfers 2009). The decline in the happiness for women is substantial. It would be roughly equivalent to the welfare loss from the unemployment rate rising for 4.5 percent to 12.5 percent. In Europe, the happiness of women has tended to increase over time, but still fell relative to men (Stevenson and Wolfers 2009).

Stevenson and Wolfers study relative happiness in a number of domains and find that none fully explains the decrease in the relative happiness of women. The financial domain, however, matters more than most. At the beginning of the US data, men and women were about equally satisfied with their household's financial position. By the end of the period, women were substantially less satisfied than men. It is also interesting that both men and women have become less happy with their marriages over time. Since the happiness of men and women with their marriages declined at about the same rate, this factor cannot account for the decrease in the relative happiness of women, but it could be a factor in decreasing proportions of young people married.

Young adult failure to thrive syndrome manifests itself differently for men and women. For men, their lower relative incomes and less secure job prospects have reduced their role as the prime breadwinner in families and reduced their value in the marriage market. For families, the lack of stable support by men has been compensated in part by the increased earnings of women. This is exactly what we saw in Table 1.

For women, the situation is different. Earlier they lived in families where their spouses had more stable and relatively better paying jobs. As opportunities for women expanded and the relative economic conditions of their spouses deteriorated, women began to contribute ever larger shares of family incomes. Thus, women were affected in two ways. First, the likelihood of stable family support from spouses diminished, and second, they became more tied to an increasingly uncertain set of labor market conditions. Thus, while women buffered the deterioration in the relative economic

conditions faced by men, they did this by becoming more vulnerable to those conditions themselves.

It is not the case that women are thriving and men are suffering. Young men and women typically live together. The declining economic circumstances of young families (as we showed in Table 1) prove that young adult failure to thrive syndrome affects both sexes.

#### 5 Discussion

In describing young adult failure to thrive syndrome, we started by discussing the deteriorating economic conditions faced by young adults. This was motivated by the fact that young adult failure to thrive syndrome is an international phenomenon. It has similar characteristics in many countries. Therefore, no explanation based on the particular situation in a given country would be complete. Another factor argued in favor of this ordering as well. Relative incomes of young men worsened from the 1980s to the 1990s and then slightly improved in the early 2000s. We see a similar dynamic in the suicide rates of young people.

Thus it appears that deteriorating economic conditions played an important role in failure to thrive syndrome, but we are not arguing that it played the only role. Economic conditions, suicide rates, demographic changes, and the lengthening period of emerging adulthood are all interconnected in a complex web. All young adults are not equally susceptible to the failure to thrive syndrome. It is most prevalent among those with the least education (Danziger and Ratner 2010). They are becoming ever more marginalized in today's developed countries. But failure to thrive syndrome is hardly limited to those with the least education.

A full discussion of the possible causes of this syndrome is beyond the scope of this paper. The fact that it can be observed in so many countries, however, suggests that there are common elements involved. Some aspects of increasing globalization may be at work here. It may also be the case that the political power of older generations has increased. The two of these may even have interacted with labor market liberalizations in response to globalization differentially hurting the young. Neither the effects of globalization nor the political power of older generations is likely to diminish in the near-term future.

Many developed countries are now spending large amounts of money in order to stimulate couples to have more children. Studies suggest that these efforts, thus far, have had some, although not much, effect (Gauthier 2007; Grant et al. 2004). The policies are usually designed to lower the cost of children to couples. But to the extent that young adult failure to thrive syndrome makes it difficult to form a partnership with enough financial resources and stability to support childbearing, then it is not surprising that the policies have had only modest success. A recognition of young adult failure to thrive syndrome suggests that certain reforms such as enabling young adults to easily enter and remain in the labor market (Bovenberg 2008) could have positive effects on fertility. Also institutional changes that allow for more efficient schooling and an earlier graduation without lowering human capital levels can extend the length of the working life and provide more opportunities for childbearing (Lutz and Skirbekk 2005).

While our attention has been focused on what appears to be critical matters with respect to increasing labor market flexibility and with respect to making pension and healthcare systems sustainable, we have been ignoring another equally important problem, the economic well-being of the young. If we try to solve our labor market and fiscal problems at the expense of the young, we might find that we cannot solve them at all. True solutions to the economic problems associated with globalization and aging must take into account the well-being of all members of society, not just the old.

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