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Impact of global crises on statistical systems**The Swedish economy during two crises****Note by Statistics Sweden***Summary*

The note discusses the effects on the labour market of the crisis in Sweden in the 1990s and the current crisis. Both crises showed greatly increasing unemployment hazard rates mostly among employed men and likewise a great reduction in the job chances for unemployed youths. However, the flow statistics presented show that the current crisis is not characterized by the same degree of severity as the crisis of the 1990's. Looking at the initial levels of job chances for the unemployed, the unemployment hazards for the employed and to what extent persons left the labour market, the downturn in the 1990's was more severe.

I. The Swedish economy during two crises

1. The international downturn in the early 1990s coincided in Sweden with a state fiscal crisis. To maintain the high krona exchange rate, interest rates were called for. Major cutbacks in state and municipal activities were needed to reduce soaring deficits. This meant, among other things, that jobs traditionally held mostly by women were hit harder than usual. At the end of 1992, the fixed exchange rate was abandoned and the krona depreciated sharply, which helped to slow the decline in employment.

2. Sweden has since had a floating exchange rate, which tends to reduce the impact of fluctuations in the international business cycle. Furthermore, the fiscal framework was reformed with elements such as a surplus target of 1 percent for the state budget, making public sector jobs less vulnerable to downturns.

3. The current international crisis has its roots in both a "normal" decline in global demand as well as the financial crisis that began in the United States — the question of what caused what is still pending. In Sweden, as well as in other European countries, the financial crisis induced a strongly expansionary monetary policy. However, effects on the ability to finance investments were transient only. The heaviest loss of demand in Sweden was seen in the automotive industry and the downturn has largely the character of a structural transformation of the economy.

4. From the perspective of both economic and social statistics, the labour market is a salient area during a crisis. There is a need to understand the current crisis in terms of labour market outcomes, and in Sweden a common benchmark is the (mainly home-grown) crisis that took place during the 1990s. For Statistics Sweden, the main source of information in this regard is the Labour Force Survey (LFS).

II. Labour market flows in the Swedish Labour Force Survey

5. The Swedish LFS is carried out monthly by Statistics Sweden. The survey is based on a sample of about 21 500 persons each month. Estimates and confidence intervals are published for monthly, quarterly and yearly data. Essentially, concepts and definitions follow the guidelines of the International Labour Organisation (ILO).

6. The Swedish LFS employs a panel design where respondents participate for eight consecutive quarters. In each given month, the sample consists of one new panel and seven previously interviewed. Using this panel property, where 7/8 of the sample is previously interviewed, it is possible to estimate quarterly flows showing transitions between different labour market states. Researchers have used flow statistics since the mid 1990s. Since 2005, tables with gross flows, including confidence intervals, are published quarterly as a supplement to present publications.

7. The Swedish LFS is currently finalizing a project to increase the sample size to about 29 000 persons per month. On a quarterly basis, this means an increase from 65 000 to 87 000 persons in the sample. One reason for this is to enable the publication of more detailed and reliable flow statistics.

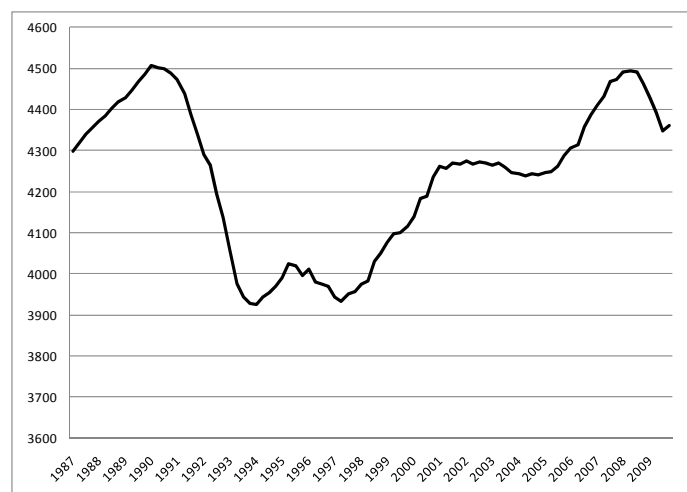
8. Flow statistics can monitor the transitions and gross flows between the various labour market situations. In this paper, we present gross flows to employment, unemployment and out of the workforce. Our aim is to compare the current crisis with that of the 1990s on the Swedish labour market, with regards to the severity and characteristics of each event.

III. Flows to employment

9. The recession that hit Sweden in the early 1990s was preceded by a period of substantial employment growth, which can be seen in Figure 1. Around 1990, about 4.5 million people in the 16-64 age group were gainfully employed according to seasonally adjusted values. Over the next few years, the number of people gainfully employed fell by nearly 600 000, a decrease of 13 percent. The current recession was also preceded by a sharp rise in employment.

Figure 1

Number of employed per 1000, 16-64 years, by quarter (seasonally adjusted)



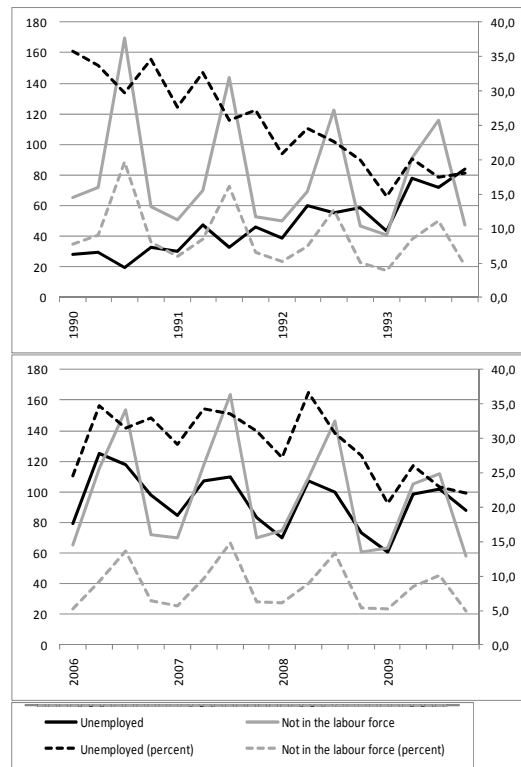
10. Figure 1 shows that more people have left employment than have entered it. A subtle way of comparing the crises, taking a given person's starting-point into consideration, is to look at how quarterly flows to employment change during each of the periods respectively. The flows can indicate the extent to which the unemployed and people not in the labour force transfer from this state to employment. Figure 2 shows how the unemployed and people not in the labour force have transferred into employment during each of the crises respectively.

11. During the 1990s crisis, the flow from unemployment to employment increased. This is explained by the fact that the number of unemployed persons increased several times over during the period and if we look instead at what we might call the chance of employment, another picture emerges. The probability of an unemployed person transferring to employment reduced significantly during the period. From a level in excess of 35 percent probability, it went down to around a lowest level of 15 percent. Among people not in the labour force, the flow in terms of numbers decreased as did the chance of employment during the first years of the crisis, indicating a stagnated labour market. The strong seasonal variations are mostly explained by students in- and outflow of the labour force.

12. In contrast to the 1990s, the flow from unemployed to employed fell slightly during the initial stage of current crisis in the second half of 2008. At that time, the number of unemployed persons was higher than at the start of the 1990s, which makes the comparison a little more difficult. The decline becomes clearer if we look at the chance of employment among the unemployed. The fall was not as dramatic as the one during the 1990s. Also, the flow from people not in the labour force to employment decreased during the period. The peak during 2009 is on a clearly lower level than during previous years.

Figure 2

Gross flows to employment. Number of unemployed and not in the labour force per 1000, share of unemployed and not in the labour force, 16-64 years, by quarter



13. Seasonal variation makes the analysis more difficult and it may therefore be appropriate to compare annual changes between corresponding quarters. It is also worth studying transition rates, since transitions in terms of numbers are affected by the increase in population. Table 1 compares changes in the quarterly transition rates from different states, broken down by gender and age. The table shows both the share of those remaining, and the chances of employment among the non-employed for two points during each period respectively. There were several years of substantial decline during the 1990s crisis, whilst we do not know how long the current recession will last. We have, however, selected two points in time: the start of each crisis, and a particularly gloomy quarter on the labour market.

14. If we look at the chance of employment, the current recession can still not be compared to the decline of the 1990s. Employed women were less affected by both crises. When employment fell, it was mostly within male-dominated business sectors. Among the unemployed, the chance of employment decreased regardless of gender during both crises and particularly among the under-55s. The job opportunities of people who were not in the labour force were affected more negatively during the nineties. A major difference between the two crises is that, during the nineties, job opportunities decreased more among women than among men. If we look at the current recession, the opposite is true.

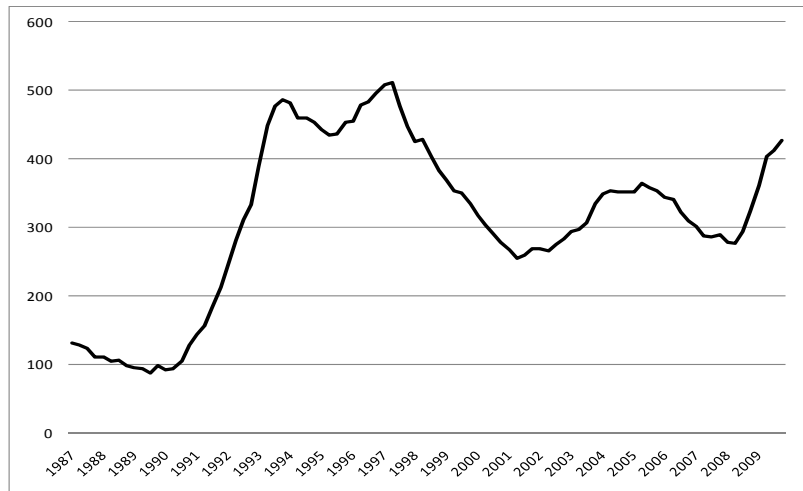
Table 1
Transition rates to employment

Age	Year	From employment			From unemployment			From outside workforce		
		All	Men	Women	All	Men	Women	All	Men	Women
16-64	1990 Q1	97,6	97,9	97,3	35,7	35,1	36,4	7,7	5,5	9,5
	1993 Q1	95,3	94,7	95,9	14,6	14,6	14,5	3,9	3,4	4,3
		-2,3	-3,2	-1,4	-21,1	-20,5	-21,9	-3,8	-2,1	-5,2
	2008 Q1	96,6	97,0	96,2	27,2	26,1	28,3	6,1	6,1	6,1
	2009 Q1	95,6	95,4	95,9	20,6	19,5	21,8	5,2	4,9	5,4
		-1,0	-1,6	-0,3	-6,6	-6,6	-6,5	-0,9	-1,2	-0,7
16-24	1990 Q1	92,1	93,5	90,5	40,7	40,8	40,5	11,2	7,1	15,6
	1993 Q1	85,4	83,8	87,0	12,3	12,5	12,0	4,9	3,7	6,2
		-6,7	-9,7	-3,5	-28,4	-28,3	-28,5	-6,3	-3,4	-9,4
	2008 Q1	85,5	86,3	84,6	32,7	32,3	33,1	7,7	7,0	8,3
	2009 Q1	83,9	83,2	84,6	21,6	19,0	24,0	6,2	5,4	7,0
		-1,6	-3,1	0,0	-11,1	-13,3	-9,1	-1,5	-1,6	-1,3
25-54	1990 Q1	98,8	98,8	98,7	37,7	36,7	38,6	9,5	6,9	11,1
	1993 Q1	96,6	96,1	97,2	16,4	16,4	16,3	4,9	4,9	4,9
		-2,2	-2,7	-1,5	-21,3	-20,3	-22,3	-4,6	-2,0	-6,2
	2008 Q1	98,0	98,3	97,6	26,6	24,6	28,4	8,0	8,5	7,7
	2009 Q1	97,0	96,8	97,2	22,7	23,1	22,3	6,7	6,7	6,8
		-1,0	-1,5	-0,4	-3,9	-1,5	-6,1	-1,3	-1,8	-0,9
55-64	1990 Q1	97,8	97,8	97,7	9,8	3,5	15,3	1,0	1,3	0,8
	1993 Q1	96,1	95,6	96,7	9,2	7,4	11,7	0,7	0,8	0,5
		-1,7	-2,2	-1,0	-0,6	3,9	-3,6	-0,3	-0,5	-0,3
	2008 Q1	97,6	97,7	97,6	14,2	14,9	13,3	1,4	1,7	1,2
	2009 Q1	96,7	96,6	96,9	10,2	9,0	11,9	1,4	1,6	1,3
		-0,9	-1,1	-0,7	-4,0	-5,9	-1,4	0,0	-0,1	0,1

IV. Flows to unemployment

15. Figure 3 shows the trend for unemployed persons on the Swedish labour market. Fewer than 100 000 people were out of work in the early nineties according to seasonally adjusted values. During the recession, the number of unemployed increased several times over to reach 470 000 during 1993. The second half of 2008 was the last time unemployment began to rise as the new recession took hold.

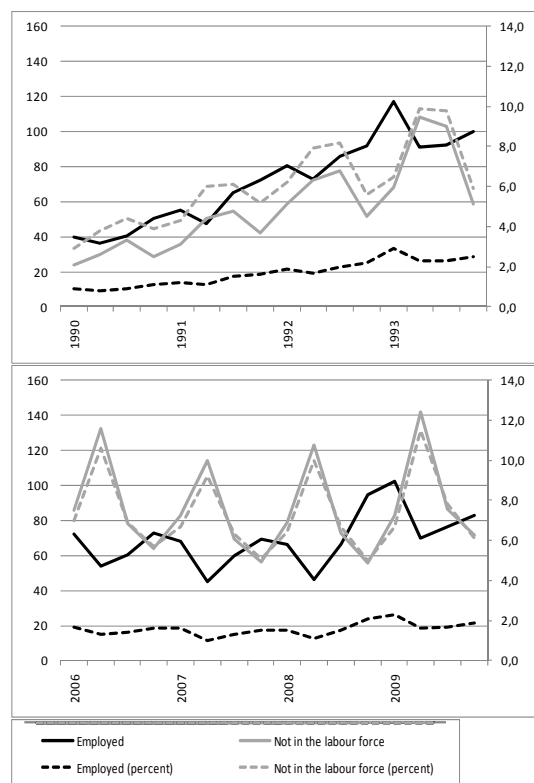
Figure 1
Number of unemployed per 1000, 16-64 years, by quarter (seasonally adjusted)



16. To supplement this, Figure 4 shows the quarterly transitions from employed and persons not in the labour force who transfer to being unemployed. Among the employed, the flow to unemployment rose sharply during the 1990s. From under 40 000 between two adjacent quarters, the flow increased to almost 120 000 in each quarter during 1993. The risk of unemployment increased dramatically during the period, from 0.5 percent in the initial stage to over 3.0 percent in the first quarter of 1993. The flow to unemployment during the 1990s also increased among persons not in the labour force. This can be seen as an increased in-flow to the labour force but at the same time the share of the population not in the labour force grew during the period and developed a different structure.

17. The levels are very different at the start of the current recession. During the boom of 2006-2007, the risks of unemployment are higher than during the early 1990s, which points to generally increased mobility on the labour market. The flow of employed persons to unemployment begins to increase during the second half of 2008, but this rise is not as dramatic as during the 1990s. The risk of unemployment also goes up temporarily but only by 0.5 percentage points compared to earlier levels. There is a certain increase in the level of the flow from outside the labour force but this is not on a par with the change during the 1990s.

Figure 4
Gross flows to unemployment. Number of employed and not in the labour force per 1000, Share of unemployed and not in the labour force, 16-64 years, by quarter



18. Table 1 showed the changes in the quarterly transition rates between different labour market states to employment between two points in time. Table 2 below, on the other hand, shows the flow to unemployment. As previously shown, the chances of employment decreased mainly among men. According to Table 2, it is precisely among employed men that the risk of unemployment increases the most during the recessions. The change in the proportion of those remaining in unemployment affects men and women to a relatively equal degree during both the crises. During the 1990s, however, the proportion of those remaining increased more substantially. There is also an age difference in how the proportion of those remaining in unemployment is affected during the crises. During the 1990s, the proportion of those remaining in unemployment among the under-55s increased very sharply whilst the rise during the current crisis has mostly affected youth and, to a certain extent, older people.

Table 2

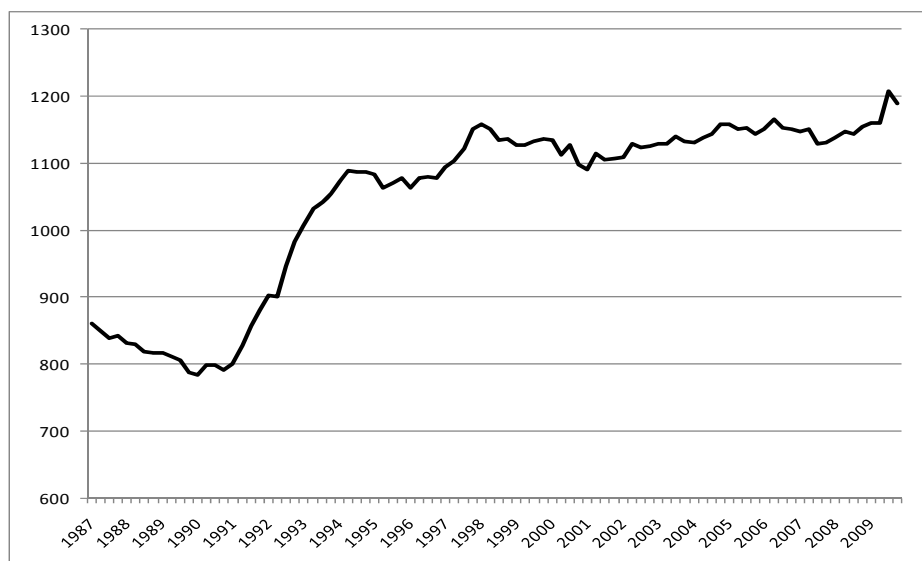
Transition rates to unemployment

Age	Year	From employment			From unemployment			From outside workforce		
		All	Men	Women	All	Men	Women	All	Men	Women
16-64	1990 Q1	0,9	0,9	0,9	50,8	52,0	49,6	2,9	3,2	2,6
	1993 Q1	2,9	3,6	2,1	72,5	74,0	70,1	6,5	7,1	5,9
		2,0	2,7	1,2	21,7	22,0	20,5	3,6	3,9	3,3
	2008 Q1	1,5	1,6	1,4	56,7	59,5	53,9	6,4	6,5	6,4
	2009 Q1	2,3	2,7	1,9	64,2	69,1	59,3	6,7	6,6	6,8
		0,8	1,1	0,5	7,5	9,6	5,4	0,3	0,1	0,4
16-24	1990 Q1	2,7	2,3	3,0	41,2	40,5	41,9	3,5	3,3	3,7
	1993 Q1	7,4	9,1	5,7	65,3	66,8	63,1	6,9	7,0	6,9
		4,7	6,8	2,7	24,1	26,3	21,2	3,4	3,7	3,2
	2008 Q1	4,7	5,0	4,3	42,5	44,8	40,2	9,5	8,7	10,5
	2009 Q1	7,0	7,8	6,0	55,1	63,0	47,8	9,1	8,0	10,3
		2,3	2,8	1,7	12,6	18,2	7,6	-0,4	-0,7	-0,2
25-54	1990 Q1	0,6	0,7	0,5	51,2	53,2	49,3	4,4	5,7	3,7
	1993 Q1	2,5	3,1	1,8	74,3	75,7	72,0	9,8	12,1	8,3
		1,9	2,4	1,3	23,1	22,5	22,7	5,4	6,4	4,6
	2008 Q1	1,2	1,3	1,2	62,6	66,8	58,9	6,8	7,1	6,6
	2009 Q1	1,9	2,3	1,5	66,8	70,1	63,5	7,5	8,0	7,2
		0,7	1,0	0,3	4,2	3,3	4,6	0,7	0,9	0,6
55-64	1990 Q1	0,6	0,6	0,6	84,3	95,0	75,0	0,3	0,5	0,2
	1993 Q1	1,3	1,6	0,9	84,6	86,2	82,2	1,3	1,5	1,2
		0,7	1,0	0,3	0,3	-8,8	7,2	1,0	1,0	1,0
	2008 Q1	0,9	0,9	0,8	73,1	72,9	73,3	0,9	1,6	0,5
	2009 Q1	1,3	1,4	1,1	78,7	79,0	78,3	1,5	2,3	1,0
		0,4	0,5	0,3	5,6	6,1	5,0	0,6	0,7	0,5

V. Flows out of labour force

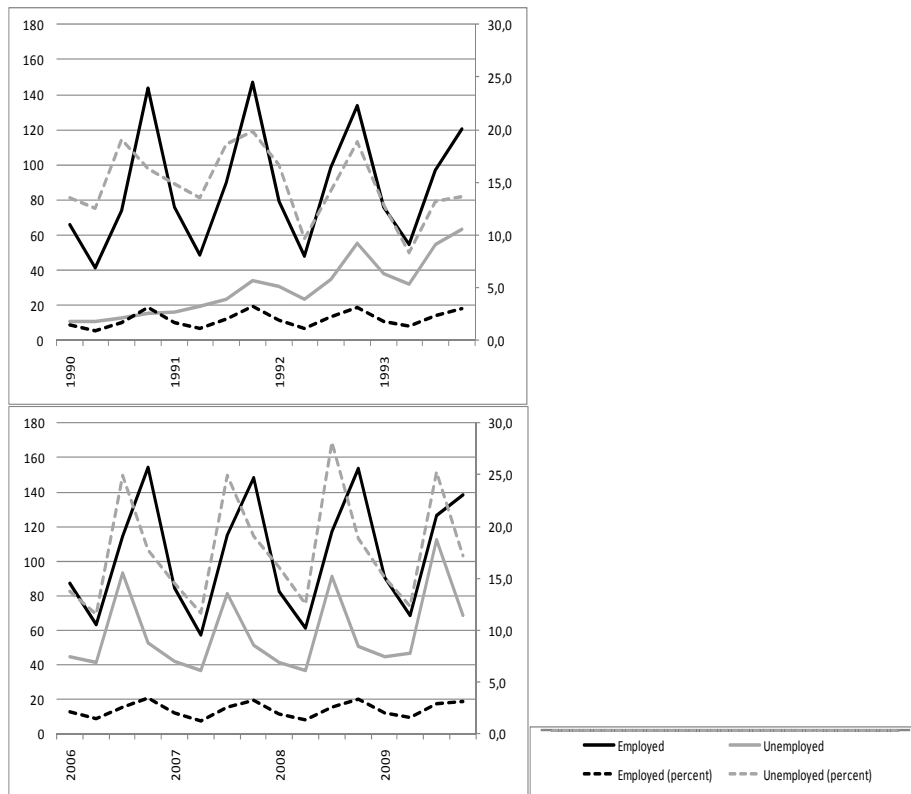
19. During the 1990s crisis, both the number and percentage of persons not in the labour force increased, as shown in Figure 5 below. From having constituted just under 15 percent of all 16-64-year-olds, the proportion rose to about 20 percent of the population. The percentage of persons not in the labour force has remained since then at this constantly higher level and has continued to make up about one fifth of the population aged 16-64.

Figure 5
Number of persons not in the labour force 1000, 16-64 years, by quarter (seasonally adjusted)



20. An indicator of how the labour market functions is the flow of individuals who go from unemployment to not in the labour force, i.e. persons who are looking for work in one quarter but during the following quarter are neither job-seekers nor have found employment. These flows are shown in Figure 6. During the start of the 1990s crisis, and also in 2008-2009, the number of unemployed in the total gross flow out of the labour force increases relatively more than for employed persons.

Figure 6
Gross flows from the labour force. Number of employed and unemployed per 1000, Share of employed and unemployed, 16-64 years, by quarter



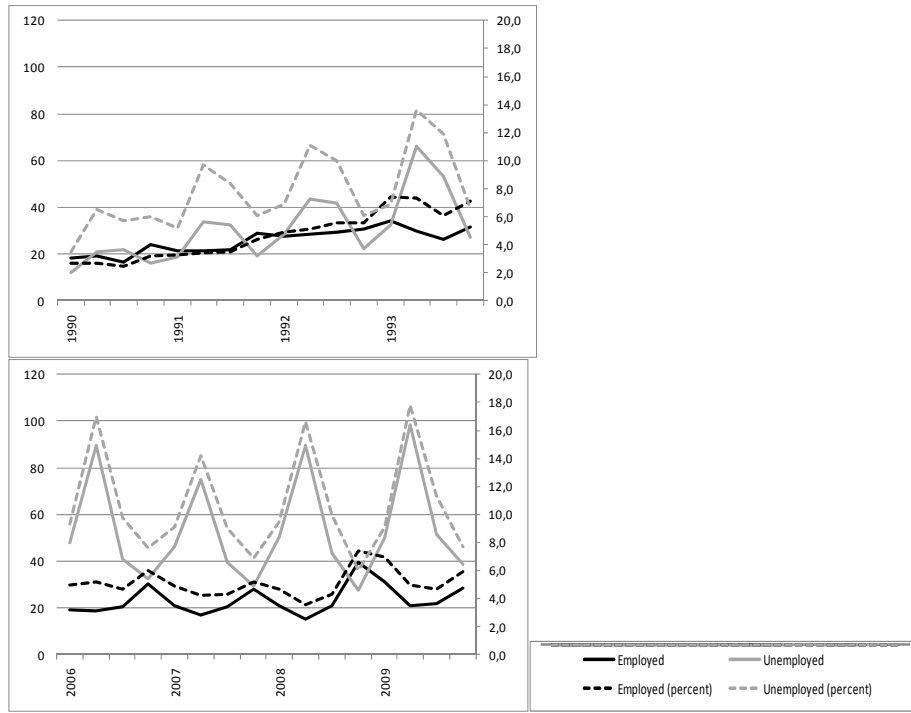
21. The quarterly probabilities of exiting the labour force or remaining in it can be found in Table 3. During the 1990s crisis, the flow of employed persons out of the labour force increased. This was particularly true of younger and older people, although this may coincide with longer study periods and more retirements. No such pattern can be perceived during the current recession. The share of unemployed women who left the labour force increased during the 1990s and especially among young women, where the outflow rate rose sharply. During the first quarter of 1993, almost one in four young unemployed women left the labour force, a substantial increase compared to the beginning of the period.

Table 3
Transition rates to outside workforce

Age	Year	From employment			From unemployment			From outside workforce		
		All	Men	Women	All	Men	Women	All	Men	Women
16-64	1990 Q1	1,5	1,2	1,8	13,5	13,0	14,0	89,4	91,3	87,9
	1993 Q1	1,8	1,7	2,0	12,9	11,4	15,3	89,6	89,5	89,7
		20,0	41,7	11,1		-12,3	9,3	0,2	-2,0	2,0
	2008 Q1	1,9	1,5	2,3	16,1	14,4	17,8	87,5	87,5	87,5
	2009 Q1	2,0	1,9	2,2	15,1	11,4	18,9	88,1	88,5	87,7
	5,3	26,7	-4,3	-6,2	-20,8	6,2	0,7	1,1	0,2	
16-24	1990 Q1	5,3	4,1	6,5	18,2	18,7	17,5	85,3	89,6	80,7
	1993 Q1	7,2	7,1	7,2	22,4	20,7	24,9	88,1	89,4	86,9
		35,8	73,2	10,8	23,1	10,7	42,3	3,3	-0,2	7,7
	2008 Q1	9,9	8,7	11,1	24,8	23,0	26,7	82,8	84,3	81,2
	2009 Q1	9,1	9,0	9,3	23,3	18,0	28,3	84,7	86,6	82,7
	-8,1	3,4	-16,2	-6,0	-21,7	6,0	2,3	2,7	1,8	
25-54	1990 Q1	0,6	0,5	0,8	11,1	10,1	12,2	86,1	87,5	85,2
	1993 Q1	0,9	0,7	1,1	9,3	7,9	11,7	85,3	83,0	86,9
		50,0	40,0	37,5	-16,2	-21,8	-4,1	-0,9	-5,1	2,0
	2008 Q1	0,8	0,4	1,2	10,8	8,7	12,7	85,2	84,3	85,8
	2009 Q1	1,1	0,9	1,3	10,5	6,8	14,1	85,7	85,3	86,0
	37,5	125,0	8,3	-2,8	-21,8	11,0	0,6	1,2	0,2	
55-64	1990 Q1	1,6	1,5	1,7	5,9	1,5	9,7	98,7	98,2	99,0
	1993 Q1	2,6	2,8	2,4	6,2	6,3	6,1	98,0	97,6	98,3
		62,5	86,7	41,2	5,1	320,0	-37,1	-0,7	-0,6	-0,7
	2008 Q1	1,5	1,5	1,6	12,7	12,2	13,4	97,6	96,8	98,3
	2009 Q1	2,0	2,0	2,0	11,1	12,0	9,8	97,0	96,1	97,7
	0,5	0,5	0,4	-1,6	-0,2	-3,6	-0,6	-0,7	-0,6	

22. In order to look at the outflow from the labour market that is not as closely connected to studies, the flows excluding full-time students are shown in Figure 7 and Table 4. It is worth noting that the share of unemployed leaving the labour force *without* becoming full-time students remains constant or decreases slightly during the current crisis. This can be contrasted to the 1990s, when there was a clear rise in unemployed person who left the labour force without starting to study full-time.

Figure 7
Gross flows from the labour force (excluding full-time studies). Number of employed and unemployed per 1000, Share of employed and unemployed, 16-64 years, by quarter



23. The picture is different, however, for unemployed youth in the 16-24 age group. As can be seen in Table 4, the probability of leaving the labour force only increased for young women between the two compared quarters. During the current crisis, however, the flow statistics show that the probability of leaving the labour force for reasons other than full-time studies has only risen among unemployed men.

Table 4

Transition rates to outside workforce (excluding to full-time studies)

Age	Year	From employment			From unemployment			From outside workforce		
		All	Men	Women	All	Men	Women	All	Men	Women
16-64	1992 Q1	2,7	2,3	3,0	3,5	3,3	3,7	52,4	46,3	57,2
	1993 Q1	7,4	9,1	5,7	6,9	7,0	6,9	47,4	42,0	51,9
		4,7	6,8	2,7	3,4	3,7	3,2	-5,0	-4,3	-5,3
	2008 Q1	4,7	5,0	4,3	9,5	8,7	10,5	48,9	44,4	52,6
	2009 Q1	7,0	7,8	6,0	9,1	8,0	10,3	47,6	42,8	51,5
	2,3	2,8	1,7	-0,4	-0,7	-0,2	-1,3	-1,6	-1,1	
16-24	1992 Q1	1,5	1,6	1,4	4,7	5,1	4,2	11,9	12,8	10,9
	1993 Q1	2,2	2,3	2,1	5,6	5,1	6,3	11,1	11,3	10,8
		0,7	0,7	0,7	0,9	0,0	2,1	-0,8	-1,5	-0,1
	2008 Q1	3,4	3,5	3,2	4,4	3,1	5,7	7,5	6,7	8,3
	2009 Q1	3,1	3,9	2,3	5,4	5,2	5,6	8,5	7,2	9,8
	-0,3	0,4	-0,9	1,0	2,1	-0,1	1,0	0,5	1,5	
25-54	1992 Q1	0,4	0,3	0,6	4,5	3,4	5,6	64,2	57,5	68,1
	1993 Q1	0,6	0,5	0,8	2,9	1,8	4,8	59,7	51,2	65,4
		0,2	0,2	0,2	-1,6	-1,6	-0,8	-4,5	-6,4	-2,7
	2008 Q1	0,5	0,2	0,7	6,3	5,7	6,9	64,7	64,5	64,8
	2009 Q1	0,6	0,5	0,7	5,9	3,3	8,4	65,3	65,8	65,0
	0,1	0,3	0,0	-0,4	-2,4	1,5	0,6	1,3	0,2	
55-64	1992 Q1	1,6	1,5	1,7	5,9	1,5	9,7	98,5	98,0	98,7
	1993 Q1	2,6	2,8	2,4	4,5	4,6	4,4	97,6	97,4	97,8
		1,0	1,3	0,7	-1,4	3,1	-5,3	-0,9	-0,7	-1,0
	2008 Q1	1,5	1,4	1,6	11,7	11,2	12,3	97,3	96,6	97,8
	2009 Q1	1,9	1,9	1,9	11,1	12,0	9,8	96,7	95,6	97,5
	0,4	0,5	0,3	-0,6	0,8	-2,5	-0,6	-1,0	-0,2	

VI. Summary

24. The panel design in the Swedish LFS enables the analysis of flows between the main labour status categories, and is produced on a quarterly basis. With the new increased sample size, flow statistics can be published with background variables such as education level, region, native country, etc. Also, flows for labour state subcategories such as retirement (due to age and/or sickness) and full time studies can be produced with sufficient quality. Apart from flow statistics, even more detail and reliability can be attained with regard to monthly and quarterly stock data.

25. Both crises showed greatly increasing unemployment hazard rates mostly among employed men and likewise a great reduction in the job chances for unemployed youths. However, the flow statistics presented show that the current crisis is not characterized by the same degree of severity as the crisis of the 1990's. Looking at the initial levels of job chances for the unemployed, the unemployment hazards for the employed and to what extent persons left the labour market, the downturn in the 1990's was more severe. If the current development continues, there is no great risk that the current recession will have the same impact on the Swedish labour market as that of the 1990's.