Jobless Recoveries and the Wait-and-See Hypothesis

By Stacey L. Schreft, Aarti Singh, and Ashley Hodgson

I n January 2005, after more than three years of sluggish employment growth, the U.S. economy finally recovered the jobs lost during the 2001 recession. Baffled by such a delayed rebound in payrolls, many speculated about the cause. Inevitably, observers compared the 2001 and 1991 recoveries, both widely considered to have been jobless. In an earlier article in this publication, Schreft and Singh showed that one common feature of the jobless recoveries was the greater use of just-in-time employment practices. Growth occurred only in the employment of more flexible labor inputs, such as temporary and part-time workers and overtime. In contrast, less flexible labor inputs, such as traditional full-time workers, were used less intensively.

The earlier article also speculated that the greater availability of just-in-time employment practices contributed to the recoveries' lack of job growth. This explanation of delayed hiring is termed the "wait-and-see hypothesis." Flexible hiring practices allow firms to more easily adjust output in the short term without hiring full-time, potentially perma-

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nent workers. This practice is especially effective around the troughs of business cycles, when there is uncertainty about the strength of the recovery. As a result, firms are willing to wait to hire until they see sufficient improvement in business conditions to justify expanding payrolls.

Businesses might, however, have trouble observing business conditions, even in their own industries. In such cases, aggregate employment, as measured by a frequently released government indicator, can signal what other firms are doing, based on their own views of business conditions. If payrolls shrink, for example, suggesting that business conditions have not improved, firms may wait to hire simply because other firms are doing the same. The result can be expansions in which employment growth is significantly delayed.

This article considers the behavior of employment in the first three years of the jobless recoveries and describes how a wait-and-see approach to hiring can contribute to such recoveries. Section I considers the joblessness of the current expansion and compares it with the 1991 jobless recovery and to the average expansion before that. Section II looks for patterns in employment variables that indicate the use of just-in-time employment practices. Section III sets forth the wait-and-see hypothesis to explain how the availability of just-in-time employment practices can contribute to delayed employment growth, especially in recoveries.

I.   THE EVIDENCE ON OVERALL JOBLESSNESS

The recovery phase of a business cycle is taken to be the period after the trough in output, when the economy is growing and recovering the output lost during the recession. Typically, when output expands in the recovery, so does employment. A unique feature of the two most recent recoveries has been the decline in employment during the recoveries. This section reviews the data to focus on the depth and duration of the joblessness in those recoveries and in comparison to earlier recoveries.

Identifying jobless recoveries

Any discussion of jobless recoveries should begin with a clear definition of "jobless recovery" and a method for dating recoveries. This article considers a recovery to be jobless when net employment growth is zero or negative over its first 12 months—the period within which employment has generally fully recovered in the United States.[1] The trough of the cycle, which is based on the NBER's dating of expansions and contractions, is the start of the recovery.[2]

Using this methodology, the rest of this section compares employment growth across the first 36 months of each recovery since 1960. In particular, it compares the current expansion (hereafter, the 2001 expansion) to the expansion that began in 1991 (hereafter, the 1991 expansion), which also started off jobless. It also compares these expansions to the average expansion from 1960 through 1989. Finally, it considers whether employment growth was slower in the jobless recoveries than might be expected given output growth. The focus throughout is on the recovery phase of the cycle, independent of the preceding recession.[3]

Employment growth across recoveries

Job growth took a lot longer to resume in the 2001 expansion than in the 1991 expansion. When it did resume, it was anemic much of the time.

Based on this article's definition of a jobless recovery, both the 1991 and 2001 recoveries were jobless. Employment growth in both expansions was much weaker than in any other expansion from 1960 through 1989 (Chart 1).[4] In fact, a year into each of the post-1990 recoveries, U.S. payrolls were actually smaller than when the recoveries started. Employment fell 0.2 percent during the first year of the 1991 expansion and 0.4 percent over the same period in the 2001 expansion.[5]

Employment growth in the two jobless expansions diverged in the second year. In the 2001 expansion, payrolls fell an additional 0.1 percent in the second year, while payrolls grew 1.5 percent in the same year of the 1991 expansion. The weak second year is what puts employment growth in the 2001 cycle well behind that of the 1991 cycle at the

Chart 1
TOTAL NONFARM PAYROLL EMPLOYMENT
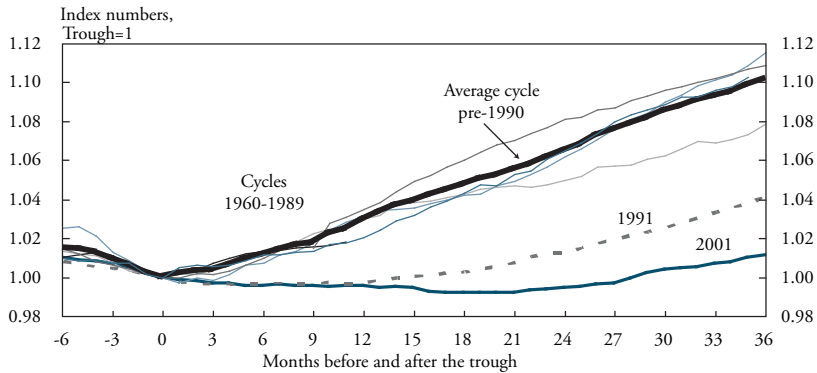
Note: The chart indexes the data to the start of the recovery—the trough—by dividing each data point by the data series' level at the trough, giving the indexed series a value of 1 in the trough. The pre-1990 average cycle consists of the five cycles with troughs in February 1961, November 1970, March 1975, July 1980, and November 1982. The 1970 and 1980 expansions, which lasted 35 and 11 months, respectively, are included in the average only for the months they were occurring.

Source: Bureau of Labor Statistics, Establishment Survey, Historical "B" Tables, Table B-1

end of three years. At that point, payrolls were barely 1 percent higher than when the recession ended. This compares with payroll growth of 4.2 percent in the three years after the trough of the 1991 expansion.

Time to recover

With such slow employment growth, the 1991 and 2001 expansions took an unusually long time to recover the jobs lost in the recession. In the typical 1960-89 expansion, employment recovered its recessionary losses in eight months (Table 1). In the 1991 expansion, it recovered in 23 months, and in the 2001 expansion, 38 months. Job gains in the latter two recoveries were slow to occur despite the fact that output was not particularly slow to recover. Real GDP regained its losses three quarters into the 1991 expansion and just one quarter into the 2001 expansion. This compares with less than two quarters for the average 1960-89 expansion. Thus, based on output growth in the jobless recoveries, employment growth was weaker than expected.

Table 1
TIME TO RECOVER

| | Time to recover | |
| | Employment | Real GDP |
Recovery of:	(months)	(quarters)
1961	10	1
1970	6	1
1975	9	3
1980	5	2
1982	12	2
Average (1960 - 1989)	8.4	1.8
1991	23	3
2001	38	1

Sources: Commerce Department, Bureau of Economic Analysis, Table 1.1.6; Bureau of Labor Statistics, Establishment Survey, Historical "B" Tables, Table B-1

II.   THE USE OF FLEXIBLE LABOR INPUTS

The failure of employment to grow is not the only distinguishing characteristic of labor markets in the jobless recoveries. Another difference is the use of just-in-time (JIT) employment practices—the employment of temporary and part-time workers and the use of overtime to achieve a more flexible workforce. This section examines the use of JIT employment practices in each of the first three years of expansion. In the jobless recoveries, companies relied on these practices to an unusual extent, effectively substituting more flexible labor inputs for less flexible ones in the employment mix.

Temporary employment

Evidence of the greater use of JIT employment in the jobless recoveries comes from data on the employment of temporary workers, or "temps."[6] Temps were substituted for nontemporary workers, or "nontemps," in the jobless recoveries but not in earlier recoveries (Chart 2). Throughout the typical 1960-89 recovery, both temporary and nontemporary employment grew and contributed to the net gains in employment.[7] In contrast, in the first year of the 1991 recovery and the first two years of the 2001 recovery, temp employment grew while

Chart 2

PERCENT CHANGE IN TEMPORARY AND NONTEMPORARY EMPLOYMENT

Percent
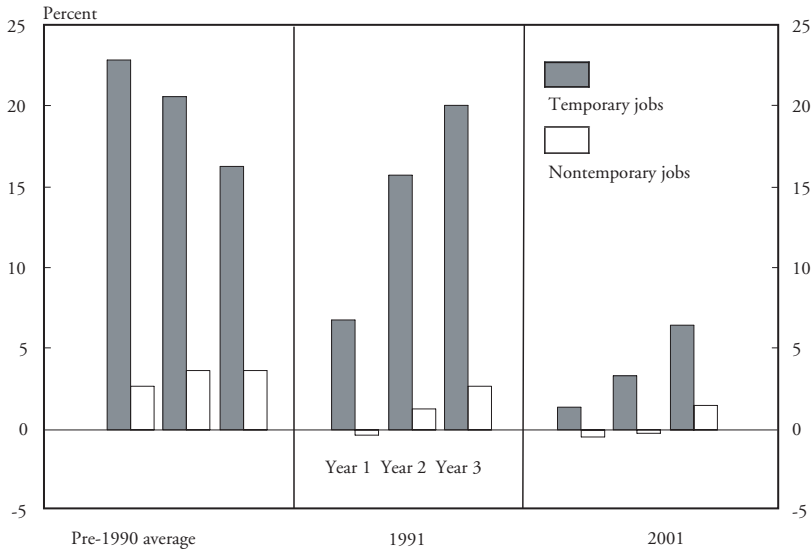
Note: The pre-1990 average cycle consists of the three cycles with troughs in March 1975, July 1980, and November 1982. The 1980 expansion is included only for the 11 months before the next recession started.

Sources: Both series are calculated by the authors. Temporary employment is from the Bureau of Labor Statistics, Establishment Survey, Employment Services series, Historical "B" Tables, Table B-1 for 1985 to the present, and from the older and now unavailable Personnel Supply Services series for 1972 through 1984. Nontemporary employment is calculated as the difference between total non-farm payroll employment and temporary employment.

nontemp employment declined. More specifically, at the end of the first year of the 1991 recovery, payrolls overall had 241,000 fewer jobs—97,100 additional temp and 338,100 fewer nontemp positions. The job losses by traditional, nontemp workers were large enough to offset the job gains by temps. Hence, temporary jobs were substituted for nontemporary jobs, and net total employment shrank in the first year of the recovery.

In the first two years of the 2001 recovery, growth in temp and nontemp jobs was weaker than in the 1991 recovery, consistent with the overall weaker performance of employment. However, the same substitution of temp for nontemp jobs is apparent. Payrolls added temp

Chart 3

PERCENT CHANGE IN PART-TIME AND FULL-TIME EMPLOYMENT
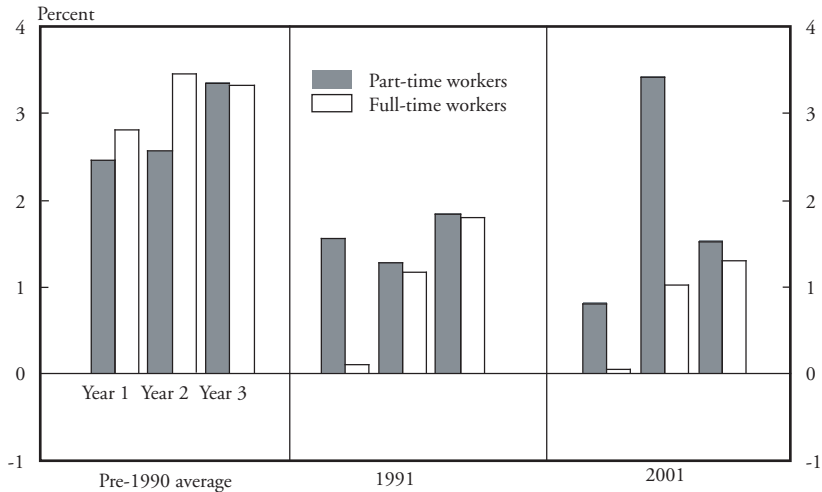
Note: Part-time employment is the number of workers reporting themselves as usually working part-time (meaning less than 35 hours a week). The change in total household employment is constructed by the authors by adding the series for part-time and full-time employment. The pre-1990 average cycle consists of the five cycles with troughs in February 1961, November 1970, March 1975, July 1980, and November 1982. The 1970 and 1980 expansions, which lasted 35 and 11 months, respectively, are included in the average only for the months they were occurring.

The third year of the 1991 expansion is only taken as the first nine months of the third 12-month period in that cycle because at that time (January 1994) the BLS changed its survey regarding part-time workers. The impact was to count many more workers as employed part time. Data for the 2001 expansion are based on the new measurement method.

Source: Bureau of Labor Statistics, Household Survey, Table A-6

jobs and lost nontemp jobs in each of those years. In the third year of the 2001 recovery and the second and third years of the 1991 recovery, temp and nontemp job growth resumed a more normal pattern, with both types of jobs contributing to employment growth.

Part-time employment

Firms also achieved a more flexible workforce in the jobless recoveries by hiring part-time workers more intensively.[8] In the average 1960-89 recovery, full-time employment grew faster than part-time employment in the first two years. The pattern was different in the

Chart 4

CHANGE IN THE SHARE OF WORKERS EMPLOYED PART-TIME FOR ECONOMIC REASONS

Percentage points
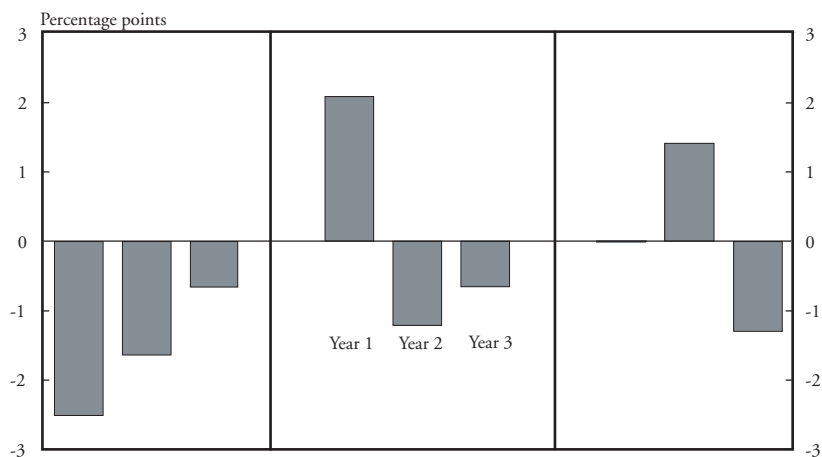
Note: Part-time employment is defined as the number of people working part time (less than 35 hours) during the week of the survey, even if they do not usually work part time. The pre-1990 average cycle consists of the five cycles with troughs in February 1961, November 1970, March 1975, July 1980, and November 1982. The 1970 and 1980 expansions, which lasted 35 and 11 months, respectively, are included in the average only for the months they were occurring.

   The third year of the 1991 expansion is only taken as the first nine months of the third 12-month period in that cycle because at that point the BLS changed its criteria for what constituted an economic reason for working part time. The impact was to count fewer workers as employed part time for economic reasons. Data for the 2001 expansion are based on the new measurement method.

Source: Bureau of Labor Statistics, Household Survey, Table A-5

jobless recoveries. In each of the first three years of those recoveries, part-time employment grew faster (Chart 3).[9] Thus, part-timers enjoyed a much greater share of the employment gains.[10]

   Why does part-time employment rise during economic downturns? It seems reasonable to expect a greater share of workers to be in part-time jobs for economic reasons, such as slack business conditions or an inability to find full-time work.[11] During recoveries, this fraction seems likely to decrease. Such a pattern characterizes the typical 1960-89 recovery (Chart 4).

   In the jobless recoveries, in contrast, economic conditions were more frequently cited as the reason for working part time. The fraction of workers employed part time for economic reasons rose 2.1 percentage points in the first year of the 1991 recovery and was essentially flat

over the same period in the 2001 recovery. This compares to a 2.5-per-centage-point decrease for the first year of the average recovery. The second year of the 1991 recovery saw a 1.2 percentage point drop in the fraction of part-time workers reporting economic reasons for their employment situation. This was still somewhat less than the average decline of 1.6 percentage points seen during the second year of the earlier recoveries. But in the second year of the 2001 recovery the frac-tion of workers employed part time for economic reasons increased another 1.4 percentage points. It was not until the third year of that recovery that there was a reduction in the extent to which part-timers were holding part-time jobs for economic reasons comparable to what was observed in previous recoveries.

Overtime

Requiring overtime of workers is an easy and cost-effective way to adjust the workforce to changes in production needs. No hiring costs are incurred, and benefits costs are unaffected.

Analysts widely agree that overtime was used much more inten-sively during the jobless recoveries. While the evidence is almost entirely anecdotal, it is clear and consistent.[12] As payrolls were reduced or not expanded in the face of a growing economy during the jobless recover-ies, workers that kept their jobs were often asked to work harder and longer to make up for the lost output of their former coworkers (Uchitelle, Wolk).

Overall then, the data suggest that employers hired part-time and temporary workers to a greater degree. Anecdotal evidence suggests they also required existing workers to put in longer hours until they felt more confident about economic conditions. Why might these shifts toward a more flexible labor force have occurred?

III. THE WAIT-AND-SEE HYPOTHESIS

The more intensive use of JIT employment practices in the jobless recoveries raises the question of whether such employment practices contributed to the economy's overall lack of job growth. Analysts have considered many explanations of the jobless recoveries. However, only

one explanation, the wait-and-see hypothesis, provides a possible link between JIT employment practices and jobless recoveries. This section first considers alternative explanations of the jobless recoveries, and then describes the wait-and-see hypothesis.

Alternative explanations for the jobless recoveries

Much of the research on jobless recoveries has focused on explanations stemming from labor-market behavior, especially the type of work and behavior of workers. For example, one explanation focuses on the type of jobs lost during the recessions. Structural changes in the economy have eliminated jobs in some industries and created jobs in others. These changes might have contributed to the joblessness of the 2001 recovery because workers did not easily transition across industries (Groshen and Potter). There is little evidence, however, of the same type of structural change in the 1991 recovery.

A second explanation focuses on labor force growth. Fewer jobs were needed during the 2001 recovery to keep up with the growth of the labor force (Hotchkiss). In fact, labor force participation did not pick up in the early stages of either jobless recovery and was even lower in the 2001 recovery than in 1991 recovery (Schweitzer). Typically, participation falls in recessions but recovers in expansions, contributing to the rise in the unemployment rate early in expansions. Without a rise in participation, the unemployment rate could remain low even though employment growth is very weak. The implication is that policymakers should not be worried that employment growth was unusually slow in the 2001 recovery.

A different approach relates jobless recoveries to long expansions. The idea is that corporate restructuring might be postponed during relatively long expansions. If that is the case, then the recessions that follow such expansions might have firms shedding labor for a longer period, perhaps even well into the subsequent expansions. Since some restructuring would occur in every business cycle, this theory makes more sense if one identifies recoveries other than the two since 1990 as being jobless. Controlling for trend growth in employment and the severity of recessions, three jobless recoveries are identified: 1970, 1991, and 2001. Employment growth is stagnant in the first year of those

Chart 5

NONFARM BUSINESS PRODUCTIVITY GROWTH, YEAR OVER YEAR
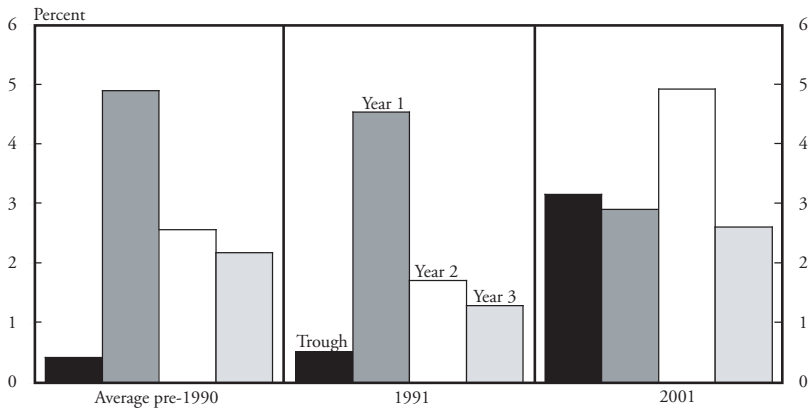
Note: The pre-1990 average cycle consists of the five cycles with troughs in the first quarter of 1961, fourth quarter of 1970, first quarter of 1975, third quarter of 1980, and fourth quarter of 1982. The 1970 expansion, which lasted 10 quarters, is included in the average only for the time it was occurring. The 1980 episode is only included at the trough because it only had three quarters of post-trough data before the 1982 recession began.

Source: Bureau of Labor Statistics, Productivity and Costs, Table A

recoveries, though to a lesser extent in the 1970 cycle (Koenders and Rogerson). However, if one extends this methodology two and three years into the recoveries, 1970 appears less like the later jobless recoveries. There is an extended period of joblessness in the 1991 and 2001 recoveries, each requiring at least 10 quarters to recover, whereas employment in the 1970 cycle recovers within five quarters.

Many analysts have speculated that the jobless recoveries are simply the result of unusually rapid productivity growth. If employers can increase productivity, they can meet increasing demand and avoid hiring new employees by getting more output from each worker. Bernanke, for example, notes that productivity growth in the 2001 recovery was stronger than in the late 1990s. He speculates that the increase in productivity growth resulted from firms' heavy investment in high-tech equipment in the late 1990s.

The productivity story has some attractive features but falls short of explaining the joblessness of the 1991 recovery. It could, however, explain why the 2001 recovery was weaker than the 1991 recovery. Pro-

ductivity growth patterns during the 1991 recovery resembled historical patterns, yet the recovery from the 1991 recession was jobless (Chart 5). In contrast, the 2001 recession stands out historically because productivity grew much more *during* the recession than is typical. This is evident from the higher year-over-year growth rate for the year ending with the trough. Also, unusually high productivity growth in the second year of the 2001 recovery may have contributed to the weak employment growth in that year. These findings make it difficult to attribute the joblessness of these recoveries exclusively to productivity growth, however, since productivity growth can only partly explain one of the two episodes.

Each of these alternative explanations probably focuses on a factor that contributed to the lack of employment growth in the jobless recoveries. Changes in labor force participation, for example, likely were occurring at the same time that firms were outsourcing more work to the self-employed. None of these explanations, however, accounts for the changes in hiring practices documented in previous sections.

The wait-and-see hypothesis

The wait-and-see hypothesis provides a link between the use of JIT employment practices and the jobless recoveries. According to the hypothesis, firms can decide when to hire, taking into consideration the costs associated with hiring too early or too late.

Hiring too early can result in expenses for wages and benefits for new hires from the time of hire until the economy actually improves. It also can result in additional costs of firing if the new hires prove to be unnecessary and need to be released.

Hiring too late can cause a firm to forgo potential revenue once its sales have started growing, while it hires and trains new workers. Firms can reduce the cost of hiring too late in an economic recovery by hiring temporary workers on short notice or hiring part-time workers, or by increasing the hours of current workers. Lower costs of delayed action would lead firms to wait longer before hiring.

More flexible employment practices thus would delay hiring, allowing firms to wait to see what everyone else is going to do before hiring because they are unsure about the strength of the recovery. This

approach could result in an extended period of joblessness.

A variant of this hypothesis could also explain continued job loss in a recovery. If firms have to decide when to fire workers, they might take signs of shrinking payrolls in the aggregate as a sign that firms are continuing to shed labor. The result can be expansions in which employment continues to fall well into the recovery. Here again, the availability of JIT employment practices allows firms to continue firing workers because they can easily increase output in the short term if business conditions improve. And firms face lower costs of firing because temporary and part-time workers generally do not qualify for unemployment compensation.

The wait-and-see hypothesis, then, suggests that jobless recoveries did not occur before the 1991 recovery because it was more costly then to delay hiring or continue reducing staff due to a relative lack of flexibility in the labor market. The decline of unions, rising health insurance costs, and technological changes that reduced the skill level needed for certain jobs all could have contributed to making labor markets more flexible since 1991.[13]

A formal economic model is needed to show that wait-and-see hiring can indeed bring about jobless recoveries. Such a model would account for "herding" in employment practices. Herding, or follow-the-leader behavior, can occur when firms have to make decisions based on their own imperfect information and information revealed through the actions of other firms. When firms ignore their own information and base decisions solely on the actions of others, follow-the-leader behavior, or herding, occurs. In the model, herding would show up in delayed hiring or prolonged firing.

Herding has been able to explain other economic phenomena as well. Bank runs and currency crises are two examples. People see others withdrawing deposits or fleeing a currency and draw conclusions about what those actions imply regarding others' information about the quality of the bank or currency. As a result, they decide to behave similarly, resulting in the very bank run or currency crisis they fear (Chari and Kehoe). Fads in fashion and stock market bubbles are some of the other occurrences that can be explained by follow-the-leader behavior (Bikhchandani and others).

IV. CONCLUSION

The 1991 and 2001 recoveries were unique in that each began without the growth in employment typically observed in recoveries. These episodes were also unique in that companies relied more heavily on JIT employment practices. Firms substituted temporary workers for traditional workers and hired part-time workers to a greater extent than full-time workers. The wait-and-see hypothesis links these two features of the jobless recoveries, something that no other explanation of the joblessness does. It explains that the greater use of JIT employment could have allowed firms to postpone hiring traditional workers until they saw solid evidence that the economy was recovering.

 Of course, no two expansions are exactly alike, and that is true of the ones that began jobless as well. The duration and severity of the weakness in employment differed across the jobless recoveries, with the 2001 recovery standing out as the more protracted and severe of the two. Differences in the degree of substitution of temps and part-timers for traditional workers also distinguished these episodes. To date, however, there have not been enough jobless recoveries to tell whether these differences are informative.

Going forward, the popularity of JIT employment practices, especially in uncertain times such as recoveries, is likely to continue. This suggests that future recoveries could be jobless or at least characterized by sluggish employment growth. Of course, other factors in the economy could change so as to increase the cost of delay in hiring and keep future recoveries from being jobless.

ENDNOTES

[1] These definitions are very literal. They have the advantage of avoiding disputes over how slow employment growth must be and for how long in order for a recovery to be labeled "jobless." For example, the first three months of the recovery from the 1973-75 recession, and the first month of the recovery from the 1981-82 recession, were jobless. Rather than debate whether the 1975 and 1982 recoveries are jobless because employment took an extra couple of months to start growing, this article focuses on the undisputedly significant difference in employment's time to recover in the post-1991 recoveries, and considers them jobless.

[2] See *www.nber.org/cycles.htm* for the NBER's business cycle dates. A common alternative approach to dating business cycles involves filtering out the trend in GDP to obtain just the cyclical movements. There are many ways to filter the data, and the method chosen will determine the dates identified as business cycle turning points. However, since many methods give dates for the turning points that are very similar to the NBER's dates, economists often just use the NBER's dates, as is done here. See Canova (1998) for a discussion of various detrending filters and their impact on the perceived business cycle facts. Canova shows that detrending filters that yield the same cyclical turning points for real GDP can nevertheless yield very different dating for turning points in the other macroeconomic variables.

[3] Some economists (for example, Wynne and Balke (1992)) have argued that understanding recoveries requires understanding the recessions that preceded them.

[4] The expansions that started after the 1948-49, 1953-54, and 1957-58 recessions are excluded from the average because data on most of the labor-market variables examined in this article are not available for them. In addition, employment growth in the recovery phase of those expansions was unusually strong. Consequently, if the pre-1960 cycles were included in the average they would only strengthen the article's findings by making the two most recent recoveries appear even more jobless.

[5] These data come from the Current Establishment Survey (also known as the payroll survey) of the Bureau of Labor Statistics (BLS). An alternative source of employment data is the BLS's Current Population Survey (also known as the household survey). The household survey includes data on the self-employed, farm workers, domestic and private-household workers, and unpaid workers in family businesses, while the establishment survey does not, only picking up workers on company payrolls. Because the household survey's estimates seem to be noisier than those from the payroll survey, the establishment survey is more commonly used as a measure of employment growth (National Bureau of Economic Research). Based on data from the household survey, the 1991 and 2001 expansions started off jobless. However, growth resumed in the second half of the first year of each cycle, although at a slower rate than in the average recovery.

[6] Temporary employees typically work for temporary-help firms that sell their services to businesses on a contractual basis. Consequently, they appear on the payrolls of the temporary-help firms, not on the payrolls of the firms in which they are placed. Temporary-help firms are considered to be in the employment services (ES) industry and thus in the services sector.

Technically, the ES industry consists of three types of firms: employment-placement agencies, which provide permanent placements and recruiting services and constitute 10 percent of ES employment; temporary-help-services firms, which place workers for a limited period and constitute about 72 percent of ES employment; and professional-employer organizations, which place workers for an unspecified length of time and make up about 18 percent of ES employment. The differences among these three types of firms are becoming blurred because ES firms are increasingly offering both temporary and permanent placements (U.S. Department of Labor, Bureau of Labor Statistics, 1999).

There are two disadvantages of the BLS approach to estimating temporary employment. First, it overstates temporary employment by counting the nontemporary staff of temporary employment agencies as temps. This overstatement should be relatively small. Second, it omits the self-employed and independent contractors who work on a fee-for-service basis and thus do not appear on any payrolls. It also omits seasonal and other temporary workers who are hired directly for the firms that use them rather than by temporary employment agencies. These are more sizable omissions given the growth in self-employment in the U.S. since 1990.

Little else is known about the industries to which temps are assigned. ES firms do, however, have data on the types of jobs held by temps. In 1996, the largest share of temps, over 40 percent, was in administrative and clerical positions. Almost 30 percent worked in manufacturing jobs, about 10 percent were in service occupations, and more than 11 percent held professional jobs (Melchionno (1999)).

[7]In the chart, the percentage change in temporary workers overstates the contribution of temporary employment to total employment growth because temporary employment is a small share of total employment. However, the conclusions from the chart would be qualitatively similar if the contributions of temporary and nontemporary employment growth to total employment growth were plotted instead.

[8]Most part-time jobs are held as a second job. The majority of part-time workers are in clerical, sales, or service jobs offering low pay and few, if any, benefits. The hourly wage paid for part-time jobs has been 50 to 60 percent of the wage for full-time jobs over the last 25 years (Tilly (1991), King (2001)). Less than a quarter of part-time jobs offer health insurance, pensions, or sick leave, and less than half offer paid leave for vacations and holidays (Lettau and Buchmueller (1999)). There appears, then, to be a clear cost advantage to hiring workers on a part-time basis.

[9]Chart 3 differs from Charts 1 and 2 in that it uses data from the BLS' Household Survey, not the Establishment Survey.

The BLS has two ways of measuring the number of part-time workers. Both measures are estimated from its survey of households. In that survey, the BLS asks respondents two questions. Did they work less than 35 hours in their primary job in a particular week (the week of the survey)? Did they usually work less than 35 hours per week in their primary job? The primary job is the job at which the survey respondent works the most hours. For example, someone with two part-time jobs working 20 hours in each would be considered a part-timer. The first ques-

tion gives rise to the "persons at work part time" series. The second gives rise to its "part-time workers" series. The latter series is the one used in the chart and discussed.

Each series has its drawbacks. The "persons at work" series counts someone who typically works 35 hours, but who worked less because of an illness as a part-time worker. The "part-time workers" series would not include someone who usually works 35 hours but was forced to work fewer than 35 hours for economic reasons (for example, the factory in which he works might have only operated for four 8-hour days during the week due to weakness in the economy). It also would not include someone with two part-time jobs who works 20 hours in each. Thus, the "part-time workers" series overstates the number of full-time workers and understates the number of part-time workers relative to what people think of as part-time and full-time workers, while the "at work" series does the reverse. In addition, to compare "full-time persons at work" to "part-time persons at work," the latter must be subtracted from "total persons at work" since the former series is not available. And "total persons at work" is not available seasonally adjusted before 1993.

[10]Growth in part-time employment, as shown in the chart, is not a good indicator of the contribution of part-time employment growth to total employment growth because part-time employment is a small share of total employment. However, the jobless recoveries differ from other recoveries even in terms of the contribution of part-time and full-time employment to employment growth.

[11]The BLS' estimates of the number of workers employed part time for various reasons comes from its "persons at work part time" series, which accounts for people who actually were at work less than 35 hours per week in their primary job during a particular week. Thus, the other, noneconomic reasons for people working part time in a given week are because they were on vacation or out sick part of the week, or because they wanted to work part time (for example, to better care for children).

[12]The BLS collects data on overtime hours only for production workers in the manufacturing sector. While these workers were about 70 percent of all manufacturing workers in 2004, they made up only 8 percent of the U.S. labor force and thus do not represent overtime practices for the economy as a whole during jobless recoveries.

[13]Rising health insurance costs have often been cited as the reason behind firms' hesitancy to hire in the jobless recoveries, although it is hard to find data consistent with this. Increasingly, firms either have shifted more of the costs of health insurance onto workers or stopped offering health insurance benefits altogether. Such practices could explain why the aggregate data are inconclusive regarding the role of higher health insurance costs in the jobless recoveries.

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