

Zens, Gregor; Böck, Maximilian; Zörner, Thomas O.

The heterogeneous impact of monetary policy on the US labor market. (English)

Zbl 1475.91217

J. Econ. Dyn. Control 119, Article ID 103989, 22 p. (2020).

Summary: We empirically investigate the role of central banks in the context of heterogeneous labor markets, jobless recoveries and job polarization. Specifically, we estimate the effect of monetary policy on the US labor market using disaggregated time series based on large scale survey data. The impact of interest rate changes on unemployment in 32 occupation groups is explored in a Bayesian factor-augmented vector autoregression framework. The results suggest largely heterogeneous impacts across various occupation groups. This heterogeneity can be explained by differential task profiles of the workers in their respective occupations. Workers with tasks that are easily automated or offshored as well as workers at the bottom of the skill distribution are disproportionately affected following a monetary policy shock. This implies that labor market participants that are highly vulnerable to structural developments such as skill-biased technological change and the globalization of labor markets are also most sensitive to conventional monetary policy measures. From a policy perspective, we conclude that central banks are unlikely to be able to take on a stabilizing role in the context of labor market polarization.

MSC:

91B64 Macroeconomic theory (monetary models, models of taxation)

91B39 Labor markets

Keywords:

monetary policy; job polarization; jobless recoveries; occupation-level; FAVAR

Software:

stochvol; bvarsv; fredr

Full Text: [DOI](#)

References:

- [1] Acemoglu, D.; Autor, D., Skills, Tasks and Technologies: Implications for Employment and Earnings, Handbook of labor economics, 4, 1043-1171 (2011), Elsevier
- [2] Ahmadi, P. A.; Uhlig, H., Sign Restrictions in Bayesian FaVARs with an Application to Monetary Policy Shocks, NBER Working Papers 21738 (2015), National Bureau of Economic Research, Inc
- [3] Arulampalam, W.; Booth, A. L.; Taylor, M. P., Unemployment persistence, Oxf. Econ. Pap., 52, 1, 24-50 (2000)
- [4] 1553-97.
- [5] Autor, D. H.; Levy, F.; Murnane, R. J., The skill content of recent technological change: an empirical exploration, Q. J. Econ., 118, 4, 1279-1333 (2003) · [Zbl 1062.91569](#)
- [6] Barnichon, R.; Figura, A., Labor market heterogeneity and the aggregate matching function, American Economic Journal: Macroeconomics, 7, 4, 222-249 (2015)
- [7] Barro, R. J., The persistence of unemployment, Am. Econ. Rev., 78, 2, 32-37 (1988)
- [8] Berman, J.; Pflieger, J., Which industries are sensitive to business cycles, Monthly Lab. Rev., 120, 19 (1997)
- [9] <https://www.federalreserve.gov/newsevents/speech/bernanke20091116a.htm>.
- [10] Bernanke, B. S.; Boivin, J.; Eliasz, P., Measuring the effects of monetary policy: a factor-augmented vector autoregressive (favar) approach, Q. J. Econ., 120, 1, 387-422 (2005)
- [11] Bernanke, B. S.; Mihov, I., Measuring monetary policy, Q. J. Econ., 113, 3, 869-902 (1998)
- [12] Blanchard, O. J.; Summers, L. H., Hysteresis and the european unemployment problem, NBER Macroecon. Annu., 1, 15-78 (1986)
- [13] Boivin, J.; Giannoni, M. P.; Mihov, I., Sticky prices and monetary policy: evidence from disaggregated us data, American economic review, 99, 1, 350-384 (2009)
- [14] Boysel, S., Vaughan, D., 2019. fredr: An R Client for the 'FRED' API. R package version 1.0.0.9000.

- [15] Budd, A.; Levine, P.; Smith, P., Unemployment, vacancies and the long-term unemployed, *The Economic Journal*, 98, 393, 1071-1091 (1988)
- [16] Carriero, A.; Clark, T. E.; Marcellino, M., Large bayesian vector autoregressions with stochastic volatility and non-conjugate priors, *J. Econom* (2019) · [Zbl 1452.62890](#)
- [17] Carter, C. K.; Kohn, R., On gibbs sampling for state space models, *Biometrika*, 81, 3, 541-553 (1994) · [Zbl 0809.62087](#)
- [18] Christiano, L. J.; Eichenbaum, M. S.; Trabandt, M., Unemployment and business cycles, *Econometrica*, 84, 4, 1523-1569 (2016) · [Zbl 1420.91321](#)
- [19] Clarida, R.; Gali, J.; Gertler, M., Monetary policy rules and macroeconomic stability: evidence and some theory, *Q. J. Econ.*, 115, 1, 147-180 (2000) · [Zbl 1064.91512](#)
- [20] Clark, K. B.; Summers, L. H.; Holt, C. C.; Hall, R. E.; Baily, M. N.; Clark, K. B., Labor market dynamics and unemployment: a reconsideration, *Brookings Pap. Econ. Act.*, 1979, 1, 13-72 (1979)
- [21] Clark, T. E., Real-time density forecasts from bayesian vector autoregressions with stochastic volatility, *Journal of Business & Economic Statistics*, 29, 3, 327-341 (2011) · [Zbl 1219.91106](#)
- [22] Coibion, O.; Gorodnichenko, Y.; Kueng, L.; Silvia, J., Innocent bystanders? monetary policy and inequality, *J. Monet. Econ*, 88, 70-89 (2017)
- [23] De Giorgi, G.; Gambetti, L., Business cycle fluctuations and the distribution of consumption, *The Review of Economic Dynamics*, 23, 19-41 (2017)
- [24] Dolado, J. J.; Jansen, M.; Jimeno, J. F., On-the-job search in a matching model with heterogeneous jobs and workers, *The Economic Journal*, 119, 534, 200-228 (2009)
- [25] forthcoming.
- [26] Dorn, D., *Essays on Inequality, Spatial Interaction, and the Demand for Skills* (2009), University of St. Gallen
- [27] Dumont, M.; Rayp, G.; Willemé, P., The bargaining position of low-skilled and high-skilled workers in a globalising world, *Labour Econ.*, 19, 3, 312-319 (2012)
- [28] Faccini, R.; Millard, S.; Zanetti, F., Wage rigidities in an estimated dynamic, stochastic, general equilibrium model of the uk labour market, *The Manchester School*, 81, S1, 66-99 (2013)
- [29] Firpo, S.; Fortin, N. M.; Lemieux, T., Occupational tasks and changes in the wage structure, *IZA Discussion Paper* (2011)
- [30] Flood, S.; King, M.; Rodgers, R.; Warren, J. R., Integrated public use microdata series, current population survey: version 6.0 [data set], IPUMS (2018)
- [31] Forni, M.; Gambetti, L., Testing for sufficient information in structural VARs, *CEPR Discussion Paper DP8209* (2011)
- [32] Frühwirth-Schnatter, S., Data augmentation and dynamic linear models, *Journal of Time Series Analysis*, 15, 2, 183-202 (1994) · [Zbl 0815.62065](#)
- [33] Gaggl, P.; Kaufmann, S., The cyclical component of labor market polarization and jobless recoveries in the us, *J. Monet. Econ.* (2019)
- [34] Gornemann, N.; Kuester, K.; Nakajima, M., Doves for the Rich, Hawks for the Poor? Distributional Consequences of Monetary Policy (2016), *CEPR Discussion Paper No. DP11233*
- [35] Griffin, J. E.; Brown, P. J., Inference with normal-gamma prior distributions in regression problems, *Bayesian Analysis*, 5, 1, 171-188 (2010) · [Zbl 1330.62128](#)
- [36] forthcoming.
- [37] Huber, F.; Feldkircher, M., Adaptive shrinkage in bayesian vector autoregressive models, *Journal of Business & Economic Statistics*, 37, 1, 27-39 (2019)
- [38] Jaimovich, N.; Siu, H. E., Job polarization and jobless recoveries, *Rev. Econ. Stat.*, 102, 1, 129-147 (2020)
- [39] Kastner, G., Dealing with stochastic volatility in time series using the r package *stochvol*, *J. Stat. Softw.*, 69, 5, 1-30 (2016)
- [40] Kastner, G.; Frühwirth-Schnatter, S., Ancillarity-sufficiency interweaving strategy (asis) for boosting mcmc estimation of stochastic volatility models, *Computational Statistics & Data Analysis*, 76, 408-423 (2014) · [Zbl 06983987](#)
- [41] Korobilis, D., Assessing the transmission of monetary policy using time-varying parameter dynamic factor models, *Oxf. Bull. Econ. Stat.*, 75, 2, 157-179 (2013)
- [42] Mumtaz, H.; Zanetti, F., Labor market dynamics: a time-varying analysis, *Oxf. Bull. Econ. Stat.*, 77, 3, 319-338 (2015)
- [43] Park, T.; Casella, G., The bayesian lasso, *J. Am. Stat. Assoc.*, 103, 482, 681-686 (2008) · [Zbl 1330.62292](#)
- [44] Potjagailo, G., Spillover effects from euro area monetary policy across europe: a factor-augmented var approach, *J. Int. Money Finance*, 72, 127-147 (2017)
- [45] <https://www.bis.org/review/r161202b.htm>.
- [46] Primiceri, G. E., Time varying structural vector autoregressions and monetary policy, *Rev. Econ. Stud.*, 72, 3, 821-852 (2005) · [Zbl 1106.91047](#)
- [47] Rubio-Ramirez, J. F.; Waggoner, D. F.; Zha, T., Structural vector autoregressions: theory of identification and algorithms for inference, *Rev. Econ. Stud.*, 77, 2, 665-696 (2010) · [Zbl 1231.91381](#)
- [48] Sachs, J., High unemployment in Europe: Diagnosis and policy implications, Technical Report (1986), National Bureau of Economic Research
- [49] Stock, J. H.; Watson, M. W., Forecasting using principal components from a large number of predictors, *J. Am. Stat. Assoc.*,

97, 460, 1167-1179 (2002) · [Zbl 1041.62081](#)

- [50] Stock, J. H.; Watson, M. W., Disentangling the Channels of the 2007-2009 Recession, *Brookings Papers on Economic Activity*, 43, 81-156 (2012)
- [51] Trigari, A., Equilibrium unemployment, job flows, and inflation dynamics, *Journal of Money, Credit and Banking*, 41, 1, 1-33 (2009)
- [52] Wolcott, E., Employment inequality: why do the low-skilled work less now?, Meeting Paper 487, Society for Economic Dynamics (2018)
- [53] forthcoming.
- [54] Wu, J. C.; Xia, F. D., Measuring the macroeconomic impact of monetary policy at the zero lower bound, *Journal of Money, Credit and Banking*, 48, 2-3, 253-291 (2016)
- [55] Zanetti, F., A non-walrasian labor market in a monetary model of the business cycle, *Journal of Economic Dynamics and Control*, 31, 7, 2413-2437 (2007) · [Zbl 1163.91465](#)

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.