The Kansas City Fed Labor Market Conditions Indicators (LMCI)

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Emily Pollard

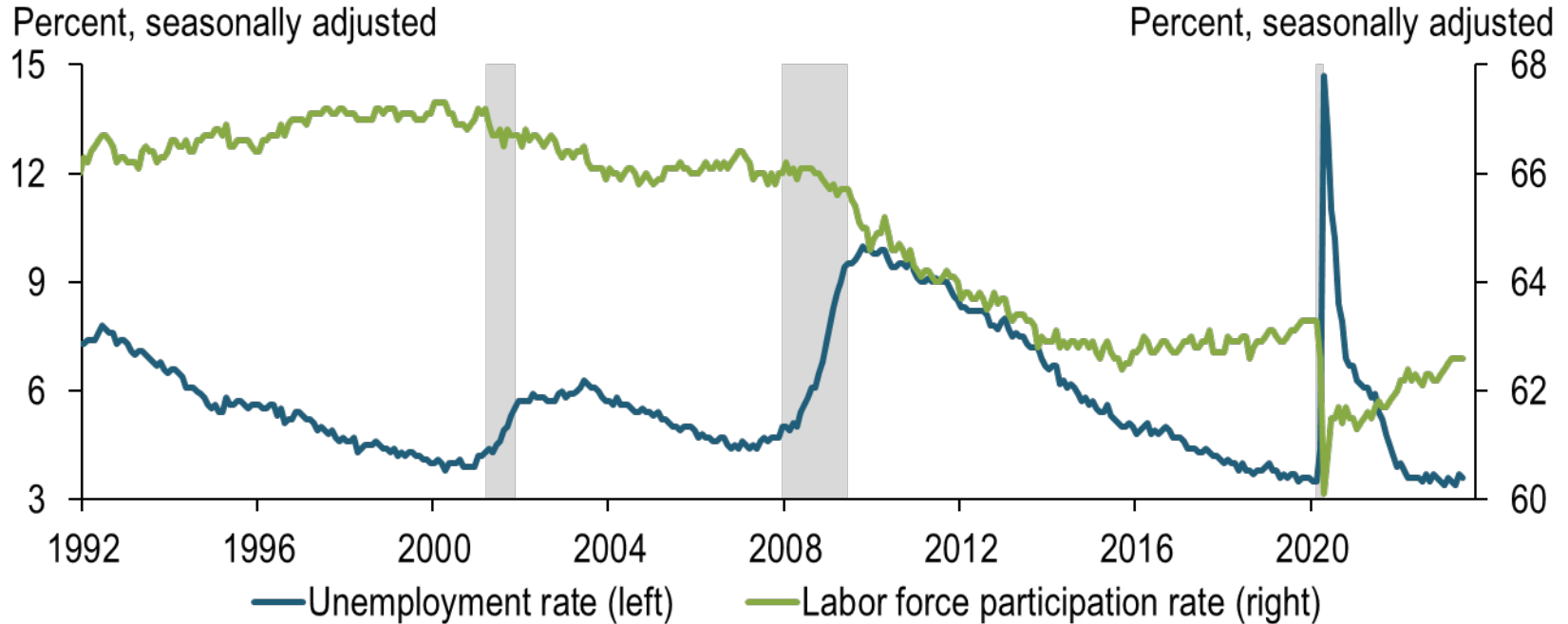*Assistant Economist, Federal Reserve Bank of Kansas City*
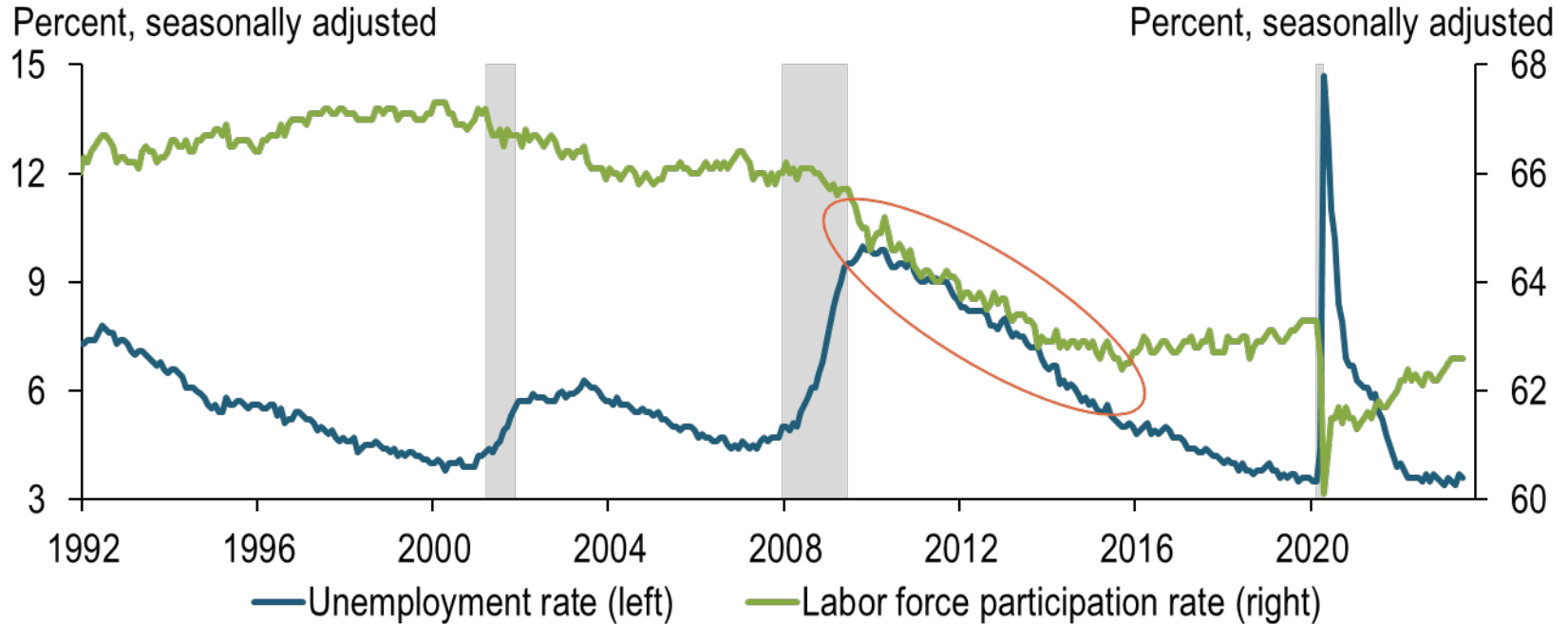
Motivation

- There are many indicators of labor market health, and they each tell their own story.

- This makes it difficult to assess how the labor market is doing as a whole.

- The goal of the LMCI is to create series that incorporate information from many common labor market variables to provide comprehensive measures of labor market health and trajectory.

Labor market variables each tell their own story.

Percent, seasonally adjusted

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Sources: BLS, NBER, Haver Analytics
Note: Grey bars represent recession shading.

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Unemployment rate (left) — Labor force participation rate (right)

Sources: BLS, NBER, Haver Analytics
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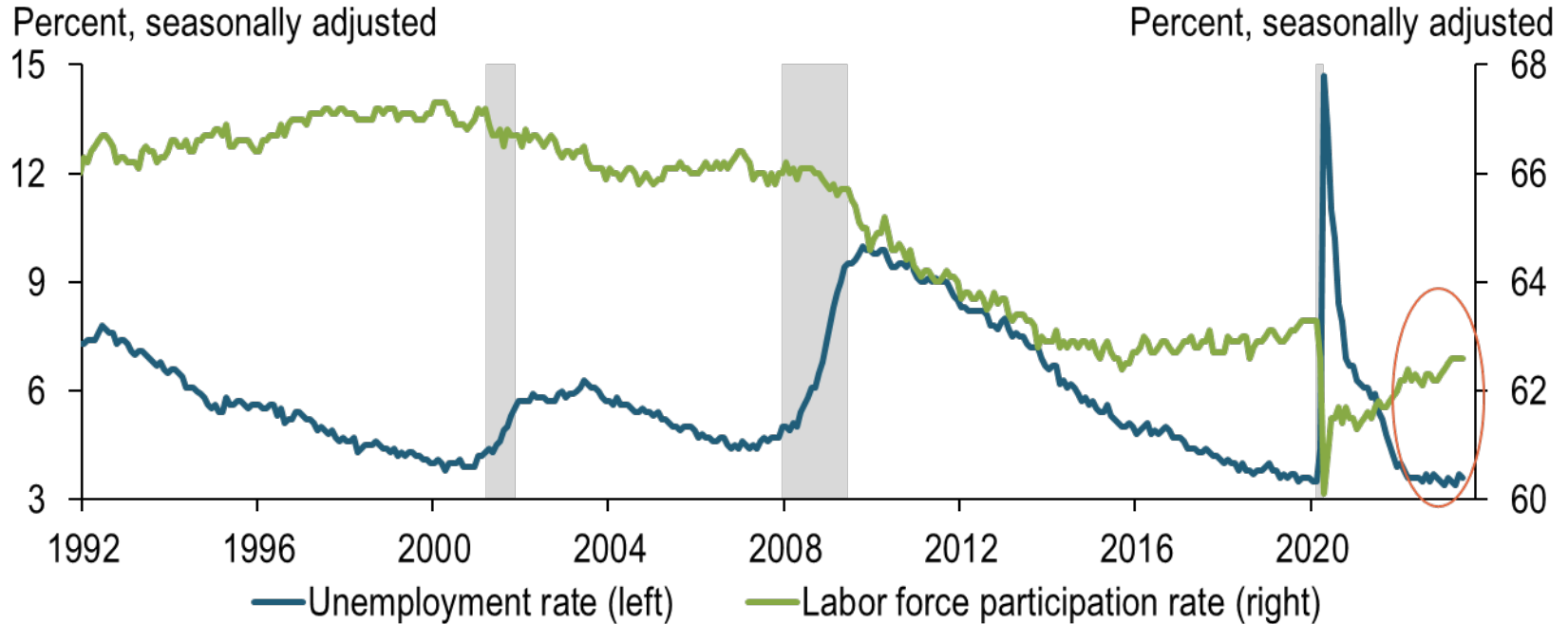
What is the LMCI?

- The Kansas City Fed Labor Market Conditions Indicators (LMCI) are two monthly measures of labor market conditions based on 24 labor market variables.

  - Level of Activity: Gives us a sense of the current state of the labor market (tight or slack).

  - Momentum: Tells us where the labor market is heading (becoming tighter or looser).

The level of activity gives us a sense of the current state of the labor market.

Index, Mean = 0, Standard Deviation = 1
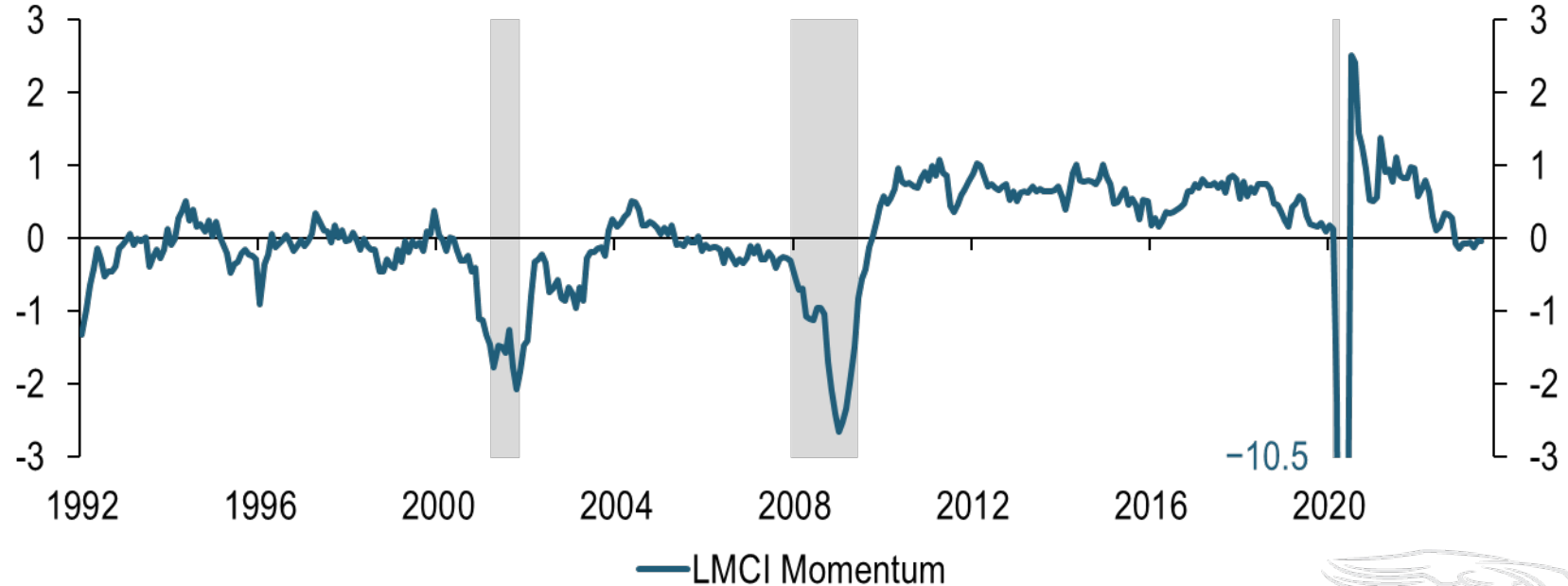

LMCI Level of Activity
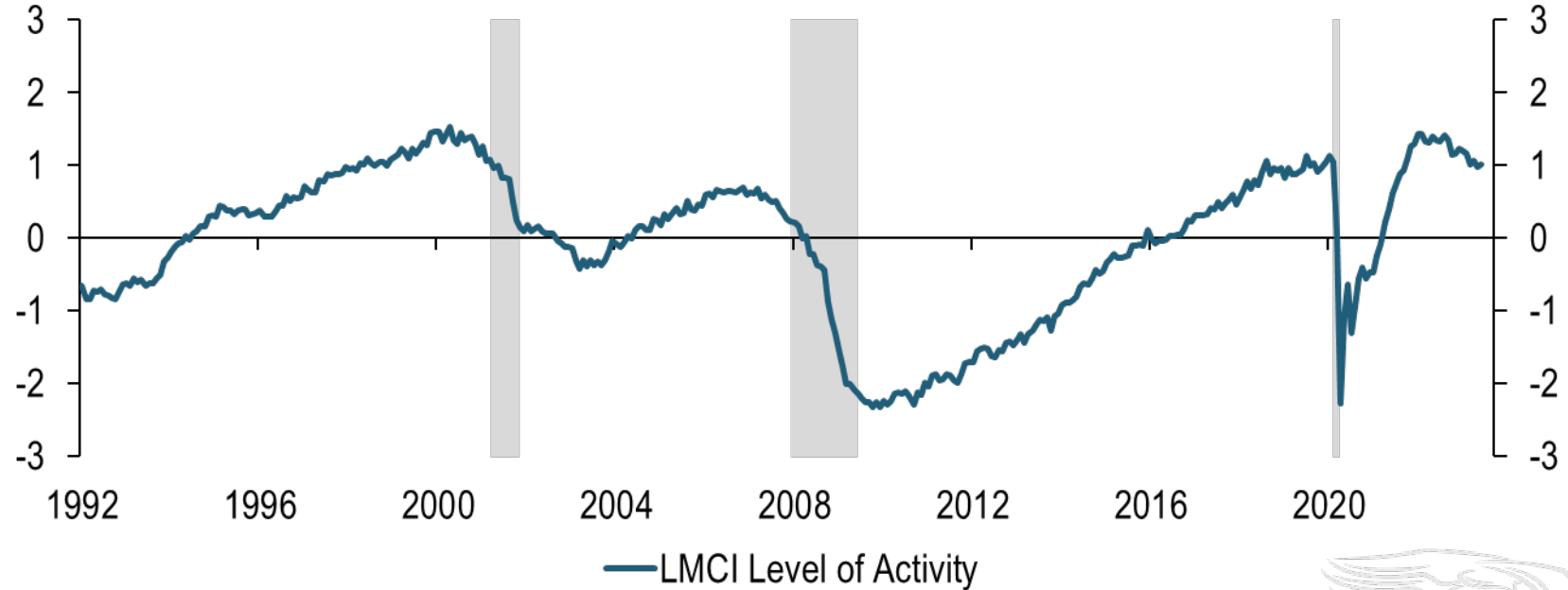
Sources: FRBKC, NBER, Haver Analytics
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Momentum tells us where the labor market is heading.

Index, Mean = 0, Standard Deviation = 1

LMCI Momentum

Sources: FRBKC, NBER, Haver Analytics
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How is the LMCI constructed?

- For input, we use 24 commonly cited labor market variables:

  - Publicly available labor market indicators such as the unemployment rate, private payroll employment growth, and initial unemployment insurance claims

  - Survey-based measures of current labor market conditions from NFIB, the Conference Board, and ISM

  - Expectations for future labor market conditions from Blue Chip, the Conference Board, and the University of Michigan

How is the LMCI constructed?

- We perform Principal Component Analysis on normalized versions of these series and extract the first two factors.

    - Factor #1: Level of Activity

    - Factor #2: Momentum

- Excluding data from 2020, these two factors explain over 70% of the variation in our input variables in our 1992 to 2023 sample.

How do the input and output variables relate?

- Each factor is a weighted sum of the normalized input variables:

  - LMCI Activity = β_{1Act} U3 + β_{2Act} U6 + β_{3Act} BlueChip + …

  - LMCI Momentum = β_{1Mom} U3 + β_{2Mom} U6 + β_{3Mom} BlueChip + …

- The level of activity is most strongly correlated with the broad unemployment rate (U6) and the percent of employed workers working part time for economic reasons.

- Momentum is most strongly correlated with growth variables such as private employment growth and growth in aggregate weekly hours
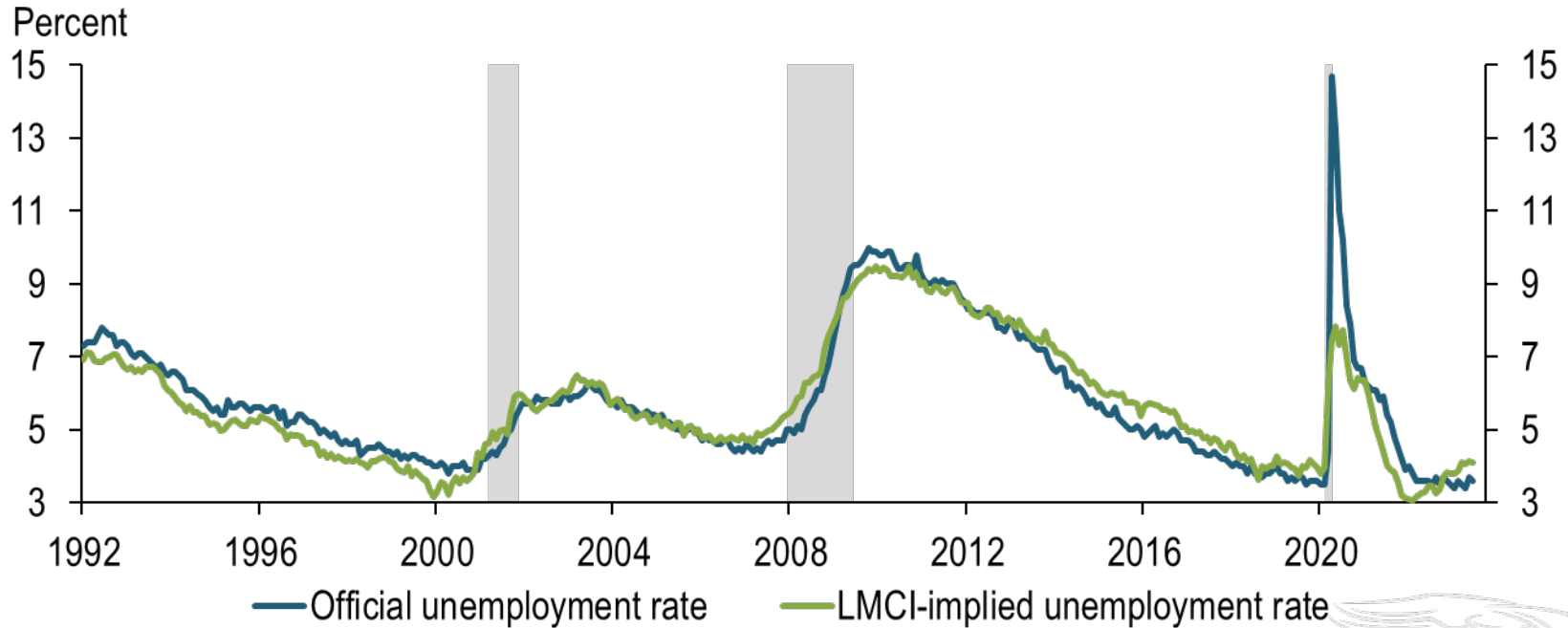
Why should we care about the LMCI?

- Overall, the LMCI provides a more comprehensive view of the labor market than any single measure.

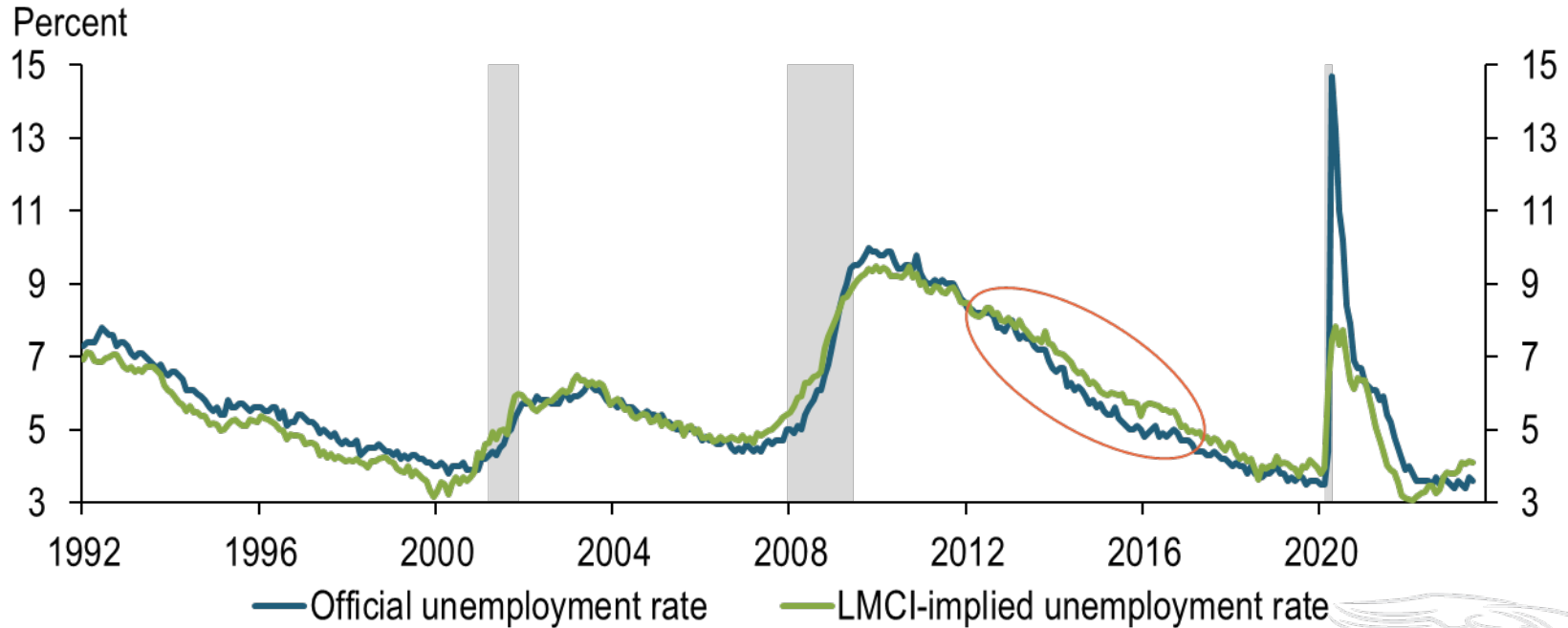- The LMCI can be a useful forward-looking measure of labor market health.

The LMCI series can capture labor market developments not reflected in the unemployment rate.

Percent

Official unemployment rate — LMCI-implied unemployment rate

Sources: BLS; FRBKC; Glover, Mustre-del-Río, and Pollard (2021); Mustre-del-Río and Pollard (2023b); NBER; Haver Analytics
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Legend: Official unemployment rate — LMCI-implied unemployment rate

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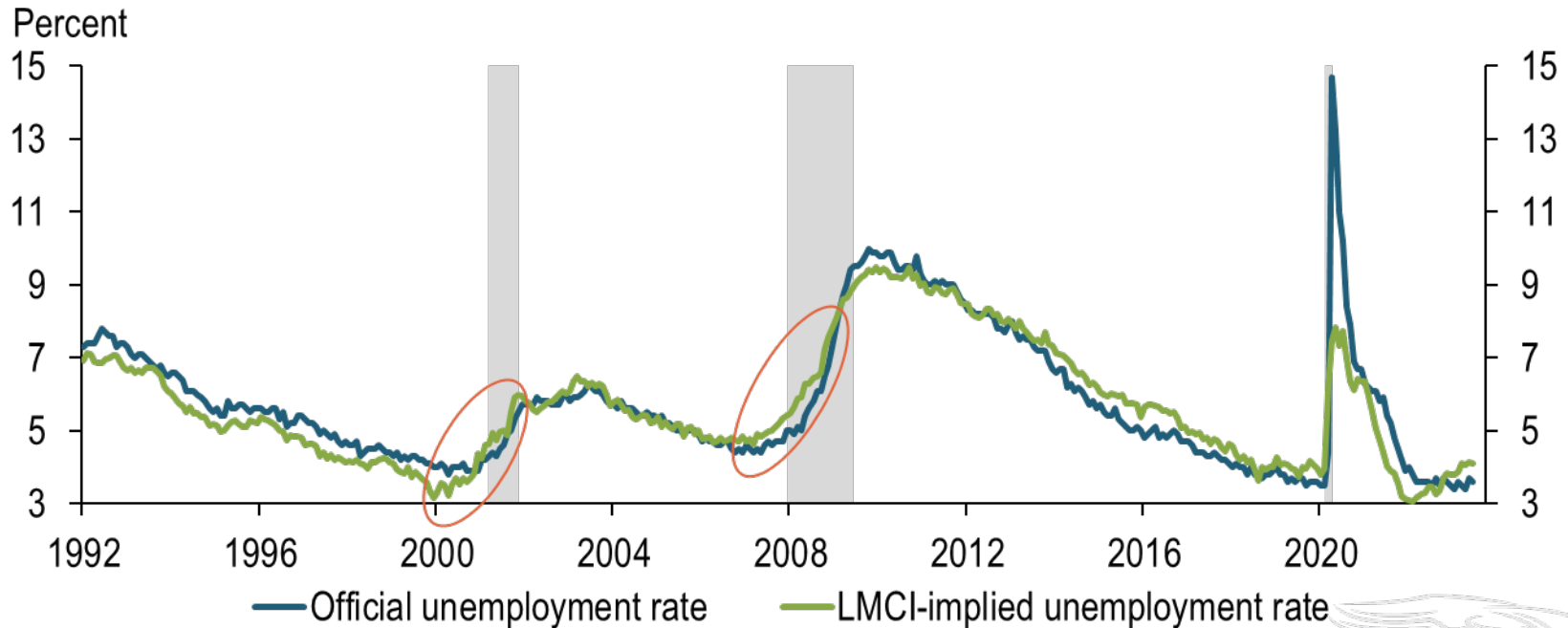Note: Grey bars represent recession shading.

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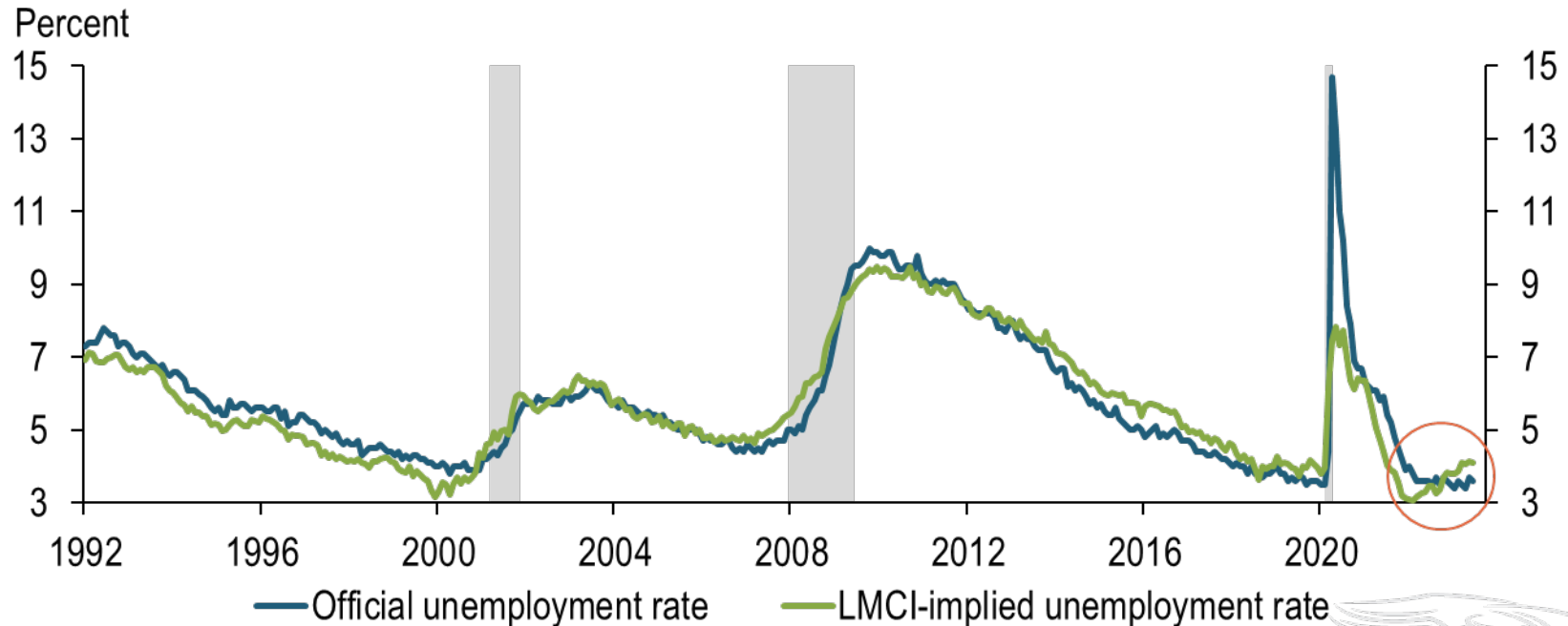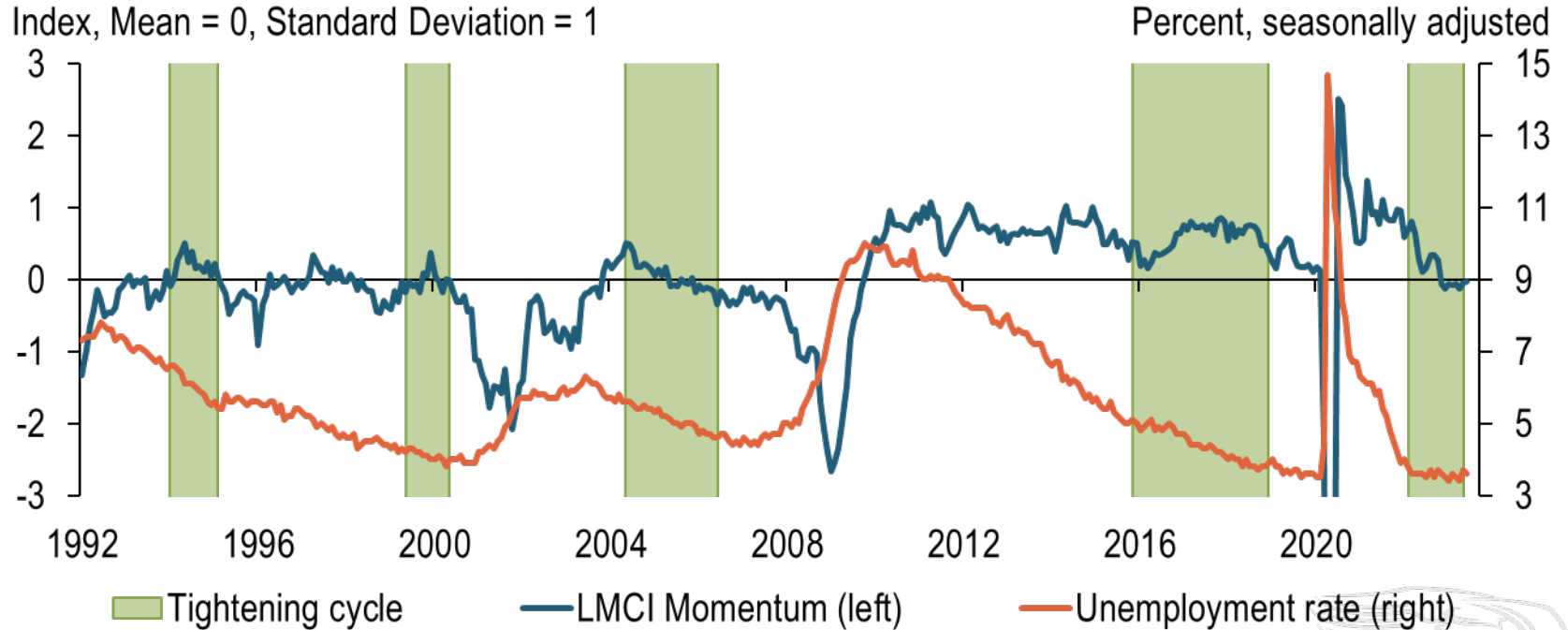

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LMCI momentum appears to be a leading indicator of how changes in monetary policy are affecting labor markets.

Index, Mean = 0, Standard Deviation = 1   Percent, seasonally adjusted

Legend: Tightening cycle   LMCI Momentum (left)   Unemployment rate (right)

Sources: BLS, Federal Reserve Board, FRBKC, Mustre-del-Río and Pollard (2023a), Haver Analytics

Conclusion

- The KC Fed Labor Market Conditions Indicators (LMCI) combine information from commonly used labor market series to give us a more comprehensive look at the current state of the labor market and where the labor market may be headed.

How can I access the LMCI series?

- Data series and associated press release are published monthly, normally two business days after the release of the Employment Situation Report.

  - [Current release schedule](#)

  - [Subscribe to LMCI E-Alerts](#)

How can I access the LMCI series?

- The LMCI series are available for download on the KC Fed website: https://www.kansascityfed.org/data-and-trends/labor-market-conditions-indicators/

- Website also features:

  - Interactive chart where you can see variations on LMCI output

  - LMCI documentation

  - LMCI research

Featured LMCI Research

- Glover, Andrew, José Mustre-del-Río, and Emily Pollard. 2021. "KC Fed LMCI Implies the Labor Market Is Closer to a Full Recovery than the Unemployment Rate Alone Suggests." Federal Reserve Bank of Kansas City, *Economic Bulletin*, October 19.

- Mustre-del-Río, José, and Emily Pollard. 2023a. "The KC Fed LMCI Momentum Indicator Suggests Monetary Policy Is Beginning to Weigh on Labor Markets." Federal Reserve Bank of Kansas City, *Economic Bulletin*, February 3.

- Mustre-del-Río, José, and Emily Pollard. 2023b. "The LMCI-Implied Unemployment Rate Suggests Actual Unemployment May Begin to Rise." Federal Reserve Bank of Kansas City, *Charting the Economy*, May 15.

Helpful LMCI Links

- LMCI website:
  - https://www.kansascityfed.org/data-and-trends/labor-market-conditions-indicators/

- Sign up for LMCI E-Alerts:
  - https://www.kansascityfed.org/about-us/ealert/