Stagflationary Stock Returns

(by Ben Knox and Yannick Timmer)

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May 2024

Summary

- **Research Question:** What is investors' perception of how unexpected inflation affects firms?
  - Response of stock returns following inflation surprises
- **Main findings:**
  - Stock returns fall in response to higher unexpected inflation
  - Market power mitigates this negative effect
  - Investors have a stagflationary view of the world: view inflation as a cost push shock
- **Mechanism:** Price of a stock is the present discounted value of future cashflows
  - Effect on inflation expectations: inflation expectations increase
  - Effect on future cashflows: expected nominal cashflows don't increase
  - Effect on discount rate: real interest rate falls/unchanged, equity risk premium goes up
  - Higher inflation is associated with bad states of the world → assets that have a lower real payout in bad states of the world require a higher risk premium

Discussion

- Topical question; renewed interest in understanding the effects of inflation
  - Agarwal and Baron (JFE, forthcoming): inflation negatively affects the economy through the bank lending channel
  - Consistent with the stagflationary view documented in the paper
- Decomposing the response of stock returns into cashflow, real rate, and risk premium component offers rich insights
- Discuss main findings in the context of other recent studies on inflation
- Further tests on the stagflationary view

Inflation and stock returns: A quick review

- Conventional wisdom: stocks are claims on real assets, should provide a hedge against unexpected inflation
- Not validated empirically – negative correlation between stock returns and unexpected inflation (Fama and Schwert (1977), Bekaert and Wang (2010), Katz, Lustig, and Nielsen (2017))
- Potential Reasons:
  - Countercyclical inflation (stagflationary view) (Fama (1981, AER))
  - Money Illusion (Modigliani and Cohn, 1979; Summers, 1980)
- Time-varying inflation risk premia - turned positive in the 2000s
  - Higher inflation positively correlated with real activity after 2000 (David and Veronesi (2013), Campbell, Pflueger, and Viceira (2020) and Chaudhary and Marrow (2023))
  - Good and bad inflation (Cieslak and Pflueger, 2023)

Does the type of inflation matter?

- Fang, Liu, and Roussanov (2022): important to distinguish between core and energy inflation; driven by different demand and supply shocks
- Does the stagflationary view of the world hold for both core and energy inflation?
- Do investors think about the cause of inflation or do they always expect higher inflation to be bad?

Does the state of the economy matter?

- Cruz et al. (2023) find that the response of equity returns to positive surprises in core inflation is time varying and becomes positive around recessionary periods
  - Higher inflation in bad times signals economic recovery
- Consistent with time varying inflation risk premium documented in the literature
- The findings in the paper suggest that investors always have a stagflationary view of the world. Would be useful to explain this result in more detail
  - Testable predictions from Baqaee et al., 2023?
  - It takes time for investors to learn about the demand origins of inflation

Controlling for news about the state of the economy

- Does the stagflationary view of the world depend on news about the state of the economy?

- Use information on unemployment news release
  - Could control for unemployment news releases
  - Separately look at inflation surprises following positive vs negative unemployment news

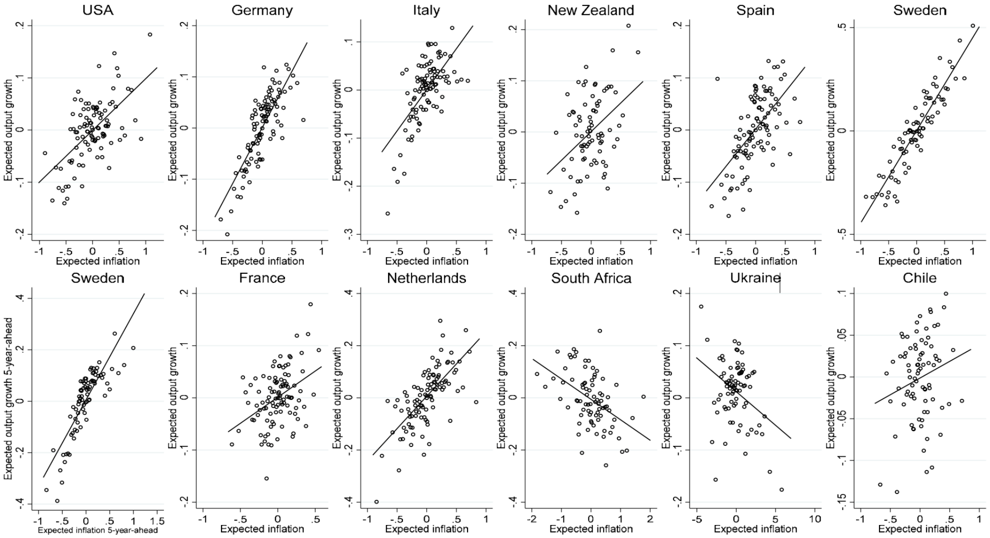
- Do investors update their beliefs after monetary policy response?
  - Could separately look at inflation surprises where MP announcements provided clear guidance on the future path of interest rates, providing a signal on future real activity

Role of monetary policy and ZLB

- Cruz et al. (2023) show that the sensitivity of stock market response to inflation surprises is highest when inflation surprises affect expectations of future short-term rates
  - Monetary policy expectations are important
- Ngo (2020) similarly attributes the positive correlation between stock returns and inflation during 2008-2015 to the zero lower bound
- Interesting that the paper finds a decline in real rates at 2-year maturity, inconsistent with Taylor rule being in operation
- Would be useful to discuss this result further, especially in the context of other studies that find monetary policy stance to be important

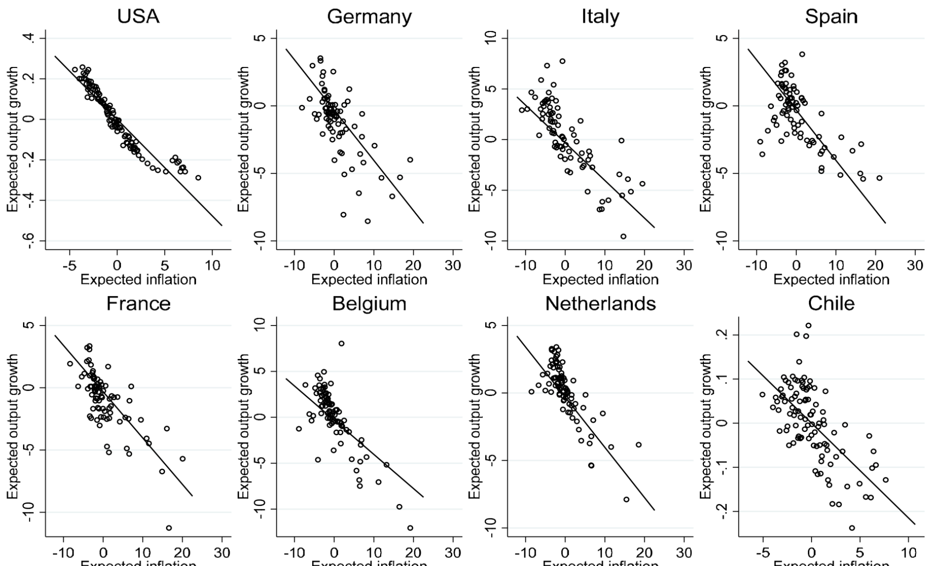
Whose beliefs matter?

Appendix Figure 1. Joint distribution of inflation and output growth expectations, professional forecasters (Consensus Economics).



Whose beliefs matter?

Appendix Figure 2. Joint distribution of inflation and output growth expectations, households.



Conclusion

- Interesting paper providing rich insights on what drives the negative relationship between inflation and stock returns
- Robust evidence on the stagflationary view
- Some more work to better understand the stagflationary view would make the paper even better