Research projects using DMP data: January 2024

Live DMP team research projects

The effects of Brexit on UK firms: Assessing the effects of Brexit on investment, employment, productivity, exports, imports and prices and understanding the determinants of Brexit-related uncertainty. Updating earlier estimates published in 2019 working paper and looking for new insights from matching DMP to ONS micro datasets.

Firm price setting: Quantifying the contributions of factors such as the Covid impact on demand, supply and labour shortages and energy input prices to changes in inflation since 2019. Examining the relationship between inflation and measures of dispersion and skewness. Developing a model to fit the empirical facts. Published working paper. Examining differences in inflation dynamics for firms who report using state versus time dependent price strategies (summary of early results on this strand).

What determines firms' inflation expectations? Examining how firms' inflation expectations respond to CPI inflation data releases and the extent to which firms put weight on forward or backward looking indicators when forming their expectations. Blog on emerging results. Examining how firms' expectations for CPI inflation and their own wages and costs affect expectations for their own future prices.

The effect of the super-deduction and full expensing on investment: Using accounts data to estimate how investment responded to changes in the cost of capital following the introduction of the super-deduction in the 2021 Budget and 2023 Full Expensing measure. The approach taken is informed and validated by responses to DMP survey questions.

The effects of climate change on investment: Investigating how firms expect climate change to affect their future investment. Which types of firms will be more affected, will climate-related investment crowd out other forms of investment and how will it be financed?

The response of expectations to high frequency news: Using daily data from the DMP survey to examine how firms' expectations and uncertainty around those expectations respond to measures of high frequency economic news such as stock market data or media reports.

Changes in the distribution of expectations since the Covid pandemic: Examining how the distribution of expectations changed during the Covid pandemic, and how they have evolved since. Comparing trends for UK and US firms. This has particular focus on the tails of the distribution, by plotting the changes at upper and lower quantiles. Early version published in VoxEU blog.

The impact of higher interest rates on businesses: Using measures of exposure to higher interest rates from both the DMP survey and accounts data to assess the effects of rises in interest rates on investment and employment for UK businesses. Comparing econometric based estimates to self-reported impacts. Assessing the characteristics of firms who report being financially constrained and investigating whether the impact of higher interest rates on employment and investment has been different for firms who are financially constrained or not.

How do firms make investment decisions?: To what extent do firms use hurdle rates (required rates of return) when they make investment decisions? What are those hurdle rates, how frequently do they change and how have they been affected by rising interest rates? What explains why some firms have higher hurdle rates than others? How often do firms review their investment decisions, how long does it take for firms to implement their investment decisions and how does this affect how they respond to shocks?

Directors' characteristics and firm performance: Following directors as they move across companies, and assessing whether that has any impact on firm performance, the quality of predictions made or uncertainty surrounding expectations. If there is any impact on firm performance or forecast accuracy when directors move across companies, is it associated with any particular characteristics of those directors?

Employment responses to sales shocks: Examining how firms say that they would change employment in response to different sized hypothetical shocks to sales. Comparing those impacts to estimates of how employment has responded to past forecast errors in sales. Assessing whether there are any signs of non-linearity in the observed responses. This research also involves making cross-country comparisons of similar questions asked to UK and US firms.

Loans and stress tests: Exploring how the loan/bond portfolios of firms respond to shocks. Using the estimates to provide a stress test metric around the potential vulnerability of firms to shocks.

Other live research projects using DMP microdata

The impact of Brexit-associated tariffs on inflation in the UK: The study will develop a multi-sector open economy DSGE model in order to formulate theoretical predictions regarding the impact of sector-specific tariffs on sectoral inflation dynamics. Empirical work using DMP data will test the model predictions that price dynamics were linked to the anticipation of tariffs following Brexit.

Authors: Boromeus Wanengkirtyo (Bank of England, Mishel Ghassibe (University of Oxford), Ivan Yotzov (Bank of England).

Do firm expectations respond to monetary policy? Examining how firm expectations, and particularly price expectations, respond to both monetary policy shocks and monetary policy announcements.

Authors: Federico Di Pace (Bank of England), Giacomo Mangiante (HEC Lausanne), Riccardo Masolo (Catholic University of the Sacred Heart).

Productivity, resilience and potential capital: Using growth accounting to work out the contributions of work from home, potential capital etc to productivity by firm type, sector. Estimate using panel methods, the substitutability of WFH and work at the workplace during Covid by firm type, sector etc to assess productivity and resilience to shocks.

Authors: Stuart Campbell (Bank of England), Janice Eberly (Northwestern University), Jonathan Haskel (Bank of England), Paul Mizen (King's College London)

Productivity and persistence of remote work after Covid: Exploring the extent to which working from home and use of potential capital will persist after Covid. Examining the extent to which employees and employers wish to continue with home working and support it by investing in potential capital, intangible assets and support services.

Authors: Stuart Campbell (Bank of England), Janice Eberly (Northwestern University), Jonathan Haskel (Bank of England), Paul Mizen (King's College London)

New research and improving research capability on economic growth and productivity: Studying productivity, economic growth, profits, pay and the labour share of income, and how these relate to the characteristics of businesses and the wider economy, such as working practices, innovation, investment, skills, and how businesses navigate macroeconomic shocks/uncertainty.

Authors: Ioannis Galanakis (King's College London), Jakob Schneebacher (Competition and Markets Authority), Thomas Wickersham (Office for National Statistics), Russell Black (Office for National Statistics), Rabiya Nasir (Office for National Statistics), Christina Palmou (Office for National Statistics), Kyle Jones (Office for National Statistics), Oluwatobiloba Ayodele (Office for National Statistics), John Van Reenen (London School of Economics), Agnes Norris Keiller (London School of Economics), Takafumi Kawakubo (London School of Economics), Charlotte Meng (QMUL), Aureo De Paula (University College London), Anthony Savagar (University of Kent), Paul Mizen (King's College London), Nicholas Bloom (Stanford University)

Beliefs in production networks: Assessing how firms form their beliefs about future costs, prices, and production and how those are updated in response to changing supply chain risks. This project will first empirically characterize how much and how quickly supply chain conditions pass through to firms' beliefs. The second part will be to formulate an economic model that explains these empirical patterns.

Authors: Robert Minton (Harvard University), Hugo Monnery (Harvard University)

Firms' sales expectations and marginal propensities to invest: The goal of this project is to estimate firms' marginal propensities to invest (MPI). MPIs can be estimated from DMP survey data in a novel way: the survey questions allow us to construct surprises to expectations in sales growth and match this with firms' investment intentions and changes. The project will explore the channels that can determine MPIs to provide further insight into firms' investment behaviour and how this and financial constraints could give rise to state-dependence of the monetary transmission mechanism to firm investment.

Authors: Andrea Alati (Bank of England), Johannes Fischer (Bank of England), Maren Froemel (Bank of England), Ozgen Ozturk (Oxford University)

Analysis of distributional consequences and considerations for Monetary Policy: Using microdata to assess the distributional consequence of monetary policy and the granular channels through which monetary policy propagates through the economy. Analysing the response of firm investment and hiring to monetary policy shocks and how that varies by firm characteristics.

Authors: Andrea Alati (Bank of England), Daniel Albuquerque (Bank of England), Jamie Lenney (Bank of England), Alberto Polo (Bank of England), May Rostom (Bank of England)

Inflation expectations and firms' financing decisions: The aim of this project is to investigate the impact of idiosyncratic shocks to firms' inflation expectations on their credit demand and cash management decisions. This involves matching data on firms' inflation expectations from the DMP to data on UK SMEs cash and credit balances from Experian and data on firms' investment from Bureau van Dijk. DMP data will be used to construct measures of firm-specific shocks to inflation expectations and therefore perceived real rates. The project will then study the effects of these shocks on firms' borrowing and investment.

Authors: Matthieu Chavaz (Bank of England), Alba Patozi (Bank of England)