**Initial thoughts**

1. The outcome variable is some labour market variable. Could be wages, hours worked, total income etc. The dependent variable of interest would be inflation.
2. As far as I understand, there are different measures of inflation, which is generally measures as a % change in different price indices. The dataset I have is microdata covering the past 20 years in general, but about half the datasets cover more than 20 (goes up to 50 for the US and Denmark). So, if we use this dataset, we will need a measure of inflation that captures long run trends sufficiently well without much noise. A noisy variable creates a lot of econometric issues. If this is not possible, then it is a good opportunity to learn some new econometrics. Tradeoffs: noisy measure – learn more econometrics, but time taken away from simple data analysis; clean measurement – more focus on data analysis, and less econometrics. My feeling is that it is better to start with something clean and simple, and then once we learn lessons, move on to more complicated versions as robustness or extensions.
3. Some challenges:
   1. Inflation and labour market microdata might be measured at different times. Would this be an issue? Perhaps not. In the microdata that we aggregate for Fede’s project, microdata aggregate pretty well to common income per capita variables. It might be an issue if we’re annualising wage data from countries that don’t do a lot of wage labour.
   2. Different countries have different kinds of labour market frictions. For ex: firing costs in EU > US. So we’d expect to see larger variance in hours worked for different countries, because of such confounders. So a cross-country type study might be difficult to do unless we have a good model for this.
   3. Inflation has been a low variance event. We’re going to see very low responses to changes in inflation. Very hard to understand what is spurious and what is not.
   4. Labour market responses to an event can be extremely slow, and a function of so many shocks including inflation. Hard to describe the effect of inflation itself.
   5. Two-way causality between labour market behaviour and inflation.

All these point to the idea that we must take some theory off the shelf, or some competing theories, and ask how the data supports a theory. If replicating theory with data is daunting, we could start with smaller hypotheses.

1. Do we want to focus on a country?

Perhaps we should start with just developed countries were a large proportion of people do wage labour. However, if we look at a long time series, we still might observe that a lot of people might have been in non-wage labour in 1960s, 1970s. But it’s probably not as big an issue as it is in developing countries.

1. Some interesting questions and facts that we want to uncover from data?
   1. How does women’s labour supply change with inflation? How (in)elastic is it? Would be interesting to look at both extensive (do they work or not) and intensive (how many hours do they supply, given that they work?) margins. In the context of this question, it would make more sense to have a less noisy LR measure of inflation, if we’re measuring labour supply annually. i.e., if you measure my labour supply in December, and December is a “good” work month, and let’s say inflation is noisy throughout that year, I don’t know where on that graph to map my wage to. We can trust that someone has put some thought into making a LR measure less noisy and “good”. We’ll see details of how our results compare to using different measures later.
   2. The above question can also be asked of general population, though I think it’s probably been done a lot? In any case, it would be nice to see the data ourselves and analyse what’s happening.
   3. How does the elasticity vary by demographics, education, occupation and industry?
   4. If a lot of people have left the work force (say older people), are they being replaced? What is the rate of replacement? So if an old individual leaves their managerial job in a manufacturing company, is he getting replaced by another manager from outside? Or is there an internal shift in the company where the next oldest person gets promoted, and the positions at the bottom open up for newer workers? Essentially I would want to develop a sort of accounting exercise, where I develop a model for within job replacement, within sector replacement.
2. The following papers might be good introductions to some of the challenges I posed above, as to how researchers separate out causality in time series type models.

**Admin, logistics, getting data**

1. Mansi can use personal laptop? If not, can you download dropbox/google drive on company laptop?
2. Data we have: LIS microdata, <https://www.worldbank.org/en/research/brief/inflation-database>, <https://www.hbs.edu/behavioral-finance-and-financial-stability/data/Pages/global.aspx>, <https://www.bankofengland.co.uk/statistics/research-datasets>
3. Currently, I have tons of LIS microdata. It takes a while to run things on their server and get output. Also, takes a while to extract output. They don’t release it easily. Perhaps we could try to run as far as we can with the information that we have. Then if we absolutely cannot move ahead, we’ll work from within LIS and extract more data. Anyway, if we plan on publishing this work somewhere (even if it is a blog), we’ll need to rerun the code on their server and get their permission. The data I have for Fede’s project can technically be only used for his project.
4. Some end goals:
   1. Write a blog for a public audience. If we do this, I want to put in some effort into doing this. Mainly because a lot of economists write sentences like “The poor stay poor because…”, “People drop out of the labour market because…” – while this level of abstraction makes scientific discussion easy, it doesn't read very well to a general audience. A general audience would perhaps prefer to read a sentence like “We find worrying evidence that those who earn less than £x are affected more” or “Inflation would reduce your purchasing power in the short run. We know this sounds worrying. But we have encouraging evidence from years 2000-2020 that a short term difficulty gets evened out within a 2 year period. Moreover, x,y,z economists are studying how the short term difficulties can be shielded against etc etc.”
   2. Have something that is short of an academic paper. I say short of an academic paper, because I think a good paper should do much more than descriptive evidence, and structurally place themselves within the literature that exists. Or if it manages to run counter to some areas in literature, we need to be pretty sure of what we’re doing. In any case, it would be exciting to generate some knowledge in this area.