Discussion of "The Post-pandemic U.S. Immigration Surge"

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As the paper notes, in recent years the US economy experienced both a large inflow of immigrants and elevated inflation and it is natural to ask whether the two are related. The paper nicely documents the characteristics of the newly arrived immigrants in terms of labor supply and consumption-savings behavior. The paper then constructs a New Keynesian model that captures some key aspects of the immigration surge to assess the impact on inflation. My discussion will focus on the modeling part of the paper. The heart of my discussion will question whether structural modeling is the best way to answer this question. This is mainly a general comment about the tools we choose to use as macroeconomists, but this paper provides a very nice setting in which to explore these issues. There are many potential channels through which immigration may affect the economy. Moreover, a large applied-micro literature has explored many of these channels. Perhaps we can find methods to incorporate these channels and the associated evidence into macroeconomic analysis.

In the paper's model, immigration expands labor supply and raises the economy's productive capacity, but it also raises demand. In an economy without capital, if immigrants consume as much as they produce, excess demand is unchanged and there is no impact on inflation. Relative to this neutrality benchmark, the key mechanism in the paper is that an inflow of new workers lowers the capital–labor ratio when the capital stock cannot adjust immediately. With less capital per worker, the marginal product of capital rises, firms have an incentive to invest, and the neutral real interest rate increases.

In a New Keynesian environment, inflation depends on whether monetary policy adjusts suffi-

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ciently to track the higher neutral rate. If policy follows a simple Taylor rule that does not respond one-for-one to movements in the neutral real rate, then an immigration surge can generate positive inflation. In many monetary models, the central bank can, in principle, achieve a wide range of inflation paths through its choice of the policy instrument. It then follows that the answer to "what are the inflation consequences of a shock?" depends on what policy rule we include in the model.

The standard practice in modeling is to include a form of the Taylor rule. The Taylor rule is, at best, an imperfect description of U.S. monetary policy in recent decades. Recent work by Nakamura et al. (2025) makes this point forcefully: they argue that simple Taylor rules fit the US data well during Taylor's original sample period of six years and in the 1970s but often fit poorly at other times and in other countries. During recent years, which are the period studied by this paper, the Taylor rule has been a very poor description of US monetary policy. If we take this perspective, the general equilibrium effects that emerge under a Taylor rule should not have a privileged place in our analysis. While the Taylor rule is a useful benchmark, we might also consider alternative benchmarks such as fixed nominal interest rates, fixed real interest rates, or strict output gap targeting.

If we can understand the effects of a shock under one benchmark policy rule, we can use that information to construct the outcome under an alternative policy rule of interest. To make this point explicitly, let me focus on a static economy, which allows for simple graphical exposition. I will later explain how these ideas apply in a dynamic economy. Consider the following economy, which is the three-equation New Keynesian model with i.i.d. shocks so the economy is expected to revert to steady state in the next period so all expected deviations from steady state are zero. Letting x be the output gap, i the nominal interest rate, and π inflation, we have

$$x = -\sigma(i - r^*)$$

$$\pi = \kappa x + \eta$$

$$i = \phi\pi + \varepsilon.$$

The first equation is the IS curve, the second equation is the Phillips curve, and the third equation is a policy rule; and r^*, η, and ε are shocks to these equations, respectively. We can substitute the

IS curve into the Phillips curve to obtain the private-sector relationship

$$\pi = -\kappa\sigma(i - r^*) + \eta.$$

Through the lens of this equation, we might say that there are two sources of inflation: interest rates that diverge from the neutral rate and cost push shocks.

The key issue in the paper, in my opinion, is that immigration brings new workers into the economy and lowers the capital-labor ratio. A lower capital-labor ratio raises the return to capital, stimulates investment, and raises the natural interest rate—r^* in my model above. The Taylor rule included in the paper's model is (using my notation)

$$i = \bar{i} + \nu\pi, \tag{1}$$

where $\bar{i}$ is a constant. Such a policy rule does not respond directly to changes in r^*, but only indirectly to the extent they cause inflation.

We can depict the private-sector relationship and the Taylor rule in (i, π) space as shown in Figure 1. The natural rate shock r^* and the cost-push shock η shift the private-sector relationship. Under the Taylor rule, the equilibrium shifts from point A to point B with higher inflation and higher nominal interest rates. Now suppose monetary policy is set according to a different rule, for example ϕ is smaller. In that case, the Taylor rule line will be steeper and point B will slide up shifted private sector relationship. If ϕ is zero and nominal interest rates are fixed, we will arrive at point C.

Is reporting point B better than reporting point C? As I have already discussed, the Taylor rule is neither a positive description of US monetary policy nor a normative guide for policymaking. So, reporting point B is, in my view, simply telling us one possible point on the new private sector relationship, but not one that is particularly special. Point C is another possible point that also tells us how much the private sector line has shifted. Suppose we know the slope of the private sector line; call it m ($m = -\kappa\sigma$ in my static model). Then, with knowledge of point C we can easily construct point B. To see this, let (i_C, π_C) be the outcomes at point C. Then solve for the

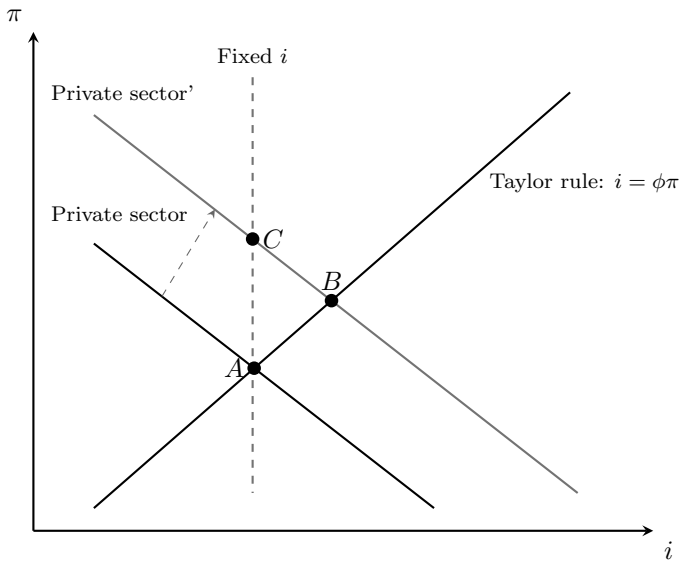

Figure 1: Static analysis of inflation outcomes. The private-sector relationship is given by $\pi = -\kappa\sigma(i-r^*)+\eta$. Point A is the initial equilibrium. Following a shift of the private sector relationship, Point B occurs when policy follows a Taylor rule, and Point C occurs when nominal interest rates are fixed.

value of Δ that satisfies the Taylor rule

$$i_C + \Delta = \phi(\pi_C + m\Delta).$$

The solution is $\Delta = (\phi\pi_C - i_C)/(1 - \phi m)$ and we have

$$\begin{pmatrix} i_B \\ \pi_B \end{pmatrix} = \begin{pmatrix} i_C \\ \pi_C \end{pmatrix} + \begin{pmatrix} 1 \\ m \end{pmatrix} \Delta. \tag{2}$$

The slope of the private sector line, m, can be estimated by observing a shift in the policy rule. That is, m is the causal effect of an exogenous change in monetary policy. We have well-established techniques for identifying such changes empirically (see Ramey, 2016, for a review). Another possibility is to calculate m in a model. With that in hand, knowing point B is just as good as knowing point C.

Let me briefly discuss how these ideas can be implemented in a dynamic economy. The adjustment described in equation (2) can be extended to a linear dynamic economy by interpreting the

i's and π's as impulse responses and m as a matrix of the causal effects of policy. Such a matrix can easily be calculated from a model. McKay & Wolf (2023) and Caravello et al. (2024) discuss how to construct such matrices from empirical evidence.

Let me now connect these ideas more closely to the literature on the economic effects of immigration. There is an extensive literature that uses cross-region regressions or comparisons across education and experience cells to assess the impact of immigration on labor markets.[1] A common approach is to use historical settlement patterns of different immigrant groups to construct shift-share style variation in local immigrant inflows. Researchers then compare the subsequent evolution of wages, employment, rents, or other outcomes across locations with different predicted exposure to immigration. This design aims to isolate plausibly exogenous variation in local immigration by leveraging the tendency of new arrivals to settle where earlier migrants from the same origin already live.

Using such a cross-region analysis, Cortes (2008) finds that immigration affects some prices. Immigrants are disproportionately employed in sectors such as construction, agriculture, and leisure and hospitality, while their consumption demand is much broader. This creates a natural asymmetry: labor-supply effects are concentrated in particular sectors, whereas demand effects spill across the whole local economy. Cortes (2008) shows that cities receiving larger low-skill immigration inflows experienced relative price declines in immigrant-intensive non-traded services, such as housekeeping and gardening. Theoretically, relative price changes can generate inflation-output trade-offs (see Woodford, 2003; Rubbo, 2023) and result in aggregate inflation.

Additional evidence shows that immigrants are more price sensitive as consumers, which is a force that links immigration inflows to lower consumer prices. This hypothesis has been studied by Lach (2007) and Kim et al. (2026). Kim et al. use scanner data for consumer packaged goods and distinguish between immigration to the location of production versus immigration to the location of consumption. They show that the main effect of immigration is at the location of consumption where additional immigration lowers prices. Supporting evidence connects these price declines to the shopping behavior of immigrants.

Furthermore, immigration raises local demand for shelter, while the short-run supply of housing is inelastic. Saiz (2007) is an early and influential paper documenting that immigration inflows raise

[1]For influential contributions, see Altonji & Card (1991), Card (2001), Borjas (2003), Card & Lewis (2007), and Peri et al. (2015). For a recent overview see Blau & Christopher (2017).

rents and house prices in receiving cities. He finds that an immigration inflow equal to 1% of a city's population raises rents and home prices by about 1%. More recently, Wilson & Zhou (2026) study the 2021–2024 surge in unauthorized immigration using new administrative microdata. They too find that immigration inflows raise rents and house prices. Specifically, they estimate that an inflow equal to 1% of a city's initial employment raises house prices by 2.2% and rents by 1.4%. Wilson & Zhou perform a back-of-the-envelope calculation that implies unauthorized immigrant worker inflows account for 30% of the recent rise in home prices and 20% of the recent rise in rents. The impact on rents is particularly relevant for the question of overall inflation outcomes because rents receive a large weight in standard inflation measures in the US and rents rose sharply in recent years.

What do we learn about inflation from these studies? The official macroeconomist answer is that we learn nothing: these studies only tell us about *relative* prices. Back-of-the-envelope calculation of the implied aggregate effect based on the differences observed in disaggregated data miss economy-wide adjustments that affect all of the disaggregated units. This is the missing intercept problem. A very common example of an economy-wide adjustment is changes in monetary policy. Using that as an example, immigration may appear to raise rents in the back-of-the-envelope calculation, but the central bank may lean against this inflationary impulse with the effect of lowering all rents.

The standard view is that structural modeling of the general equilibrium response to a shock is the best way solve the missing intercept problem. However, I argued above that knowing the effects of a shock under fixed interest rate is just as good as knowing the effects of a shock under a Taylor rule if we know the causal effects of monetary policy. One could use the back-of-the-envelope calculation to construct point C and, from there, incorporate the monetary policy offset using estimated or model-generated effects of monetary policy.

The approach I have outlined has some advantages and some disadvantages relative to structural modeling. Structural modeling necessarily takes a simplified view of the economy in order to maintain tractability. Above, I have described empirical studies that estimate (relative) price effects that occur through a range of channels. It would be infeasible to build a structural model that incorporates all relevant channels. On the other hand, one can make a similar criticism of my proposed alternative. Monetary policy is just one source of the missing intercept problem and there are no doubt others. One issue that has been discussed in the empirical literature is that

the native population may respond to immigration by reallocating across cities thereby dampening (or amplifying) the differences in population change across cities. Another source of the missing intercept is trade linkages across cities whereby an increase in prices in one city could reduce demand for its products and increase the demand for products from other cities.[2] My proposal above gives a suggestion for how one could account for monetary policy adjustments but misses other sources of the missing intercept.[3]

The topic of immigration is a bit unusual in that there is such an extensive body of empirical research on disaggregated data. It seems a shame to say we cannot learn from this evidence. Instead, it seems to me that we should seek to integrate the lessons from this research and adjust for missing intercept problems to the extent that we can.

The paper does a very thorough analysis of the effects of immigration through the capital-labor ratio channel. It would be interesting to consider the macroeconomic effects of the other channels I have mentioned and link more closely to the cross-region evidence. If one did that, would one find that immigration has important consequences for inflation? I suspect the main effect would come through rents and the analysis of Wilson & Zhou (2026) gives us a sense that there would be a positive but small impact on overall inflation.

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[2] One could possibly make use of the demand equivalence arguments in Guren et al. (2021) to assess and adjust for trade linkages across cities.

[3] A challenge in making use of cross-region empirical results in a dynamic context is that empirical work does not typically report an impulse response of effects. Perhaps it would be feasible to do so, but there is not an off-the-shelf set of estimates to refer to. Therefore one would likely need to use some judgement and assumptions to fill in the dynamic profile of the empirical effects.

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