Dmitry Brizhatyuk

Ph.D. Candidate
University of Washington
Department of Economics

dbrizhatyuk.github.io
dbrizh@uw.edu
+1 (848) 218-64-33

November 8, 2019

Research statement

My current research focuses on the nexus between asset and credit market cycles, short-run fluctuations, and growth. What factors contribute to slow and incomplete recoveries after major crises? Why are some economies more prone to such dynamics than others? As ever, what lessons do these dynamics offer for policymakers? These are among the questions that I explore in my research.

Job Market Paper

How long-lasting is the legacy of a housing market boom-and-bust cycle? Thus far, the literature has documented significant contemporaneous effects of negative house price shocks on economic activity (e.g. Mian et al. 2013, Davis and Haltiwanger 2019, Jordà 2005). In this project (Brizhatyuk 2019), I first demonstrate that the negative effects of housing market crashes are highly persistent and last much longer than conventional business cycles. I then build a structural model to account for this evidence, explore channels that propagate the shock, and perform policy counterfactuals.

Empirically, across US metropolitan statistical areas, I uncover a significant effect of the 2007-2009 house price shock — identified with Saiz (2010) and Guren et al. (2018) instruments — on the subsequent growth in labor productivity. The US experience is not an outlier; a similar pattern emerges in a panel of 50 countries, where I document that housing market crashes are strongly associated with household deleveraging, deep recessions, and incomplete recoveries. I show that the persistent decrease in the level of output is driven by the decrease in utilization-adjusted total factor productivity and capital stock that remains significant even beyond 10 years after the crash.

To account for this evidence, I construct a dynamics general equilibrium model that combines elements from the literature on deleveraging with borrower-saver heterogeneity (Eggertsson and Krugman 2012), the literature on the role of collateral constraints tied to housing wealth (Iacoviello 2005), and the R&D-based endogenous growth literature (Romer 1990, Comin and Gertler 2006). When the preexisting level of debt is sufficiently high, negative housing price shocks trigger the collateral constraint and cause deleveraging. An endogenous slowdown in productivity growth emerges as one of the adjustment margins during this process, prolonging the real effects of the crisis. The initial shock is amplified by a negative feedback loop between deleveraging, borrowers' housing wealth and growth, the magnitude of which crucially depends on the preexisting level of household debt and the policy response.

I use the calibrated model to identify implications for the policy response during episodes of household deleveraging. Measures that reduce the debt burden of borrowers are effective in alleviating the short-run and persistent effects of deleveraging, especially when implemented

during a crisis. In terms of monetary policy, the endogenous response of productivity growth warrants a greater focus on short-run output stabilization.

Other Research in Progress

My job market paper builds on my earlier research (Brizhatyuk 2018), which offers a framework illustrating why some economies may be more prone to swings in trend growth than others (Aguiar and Gopinath 2007). I emphasize the role of occasionally binding credit constraints that cause state-dependence and asymmetry in the link between economic activity and endogenous growth. Negative shocks are highly detrimental to the long-run level of output in financially vulnerable economies that undergo leverage-deleverage cycles, but this is not the case in economies where agents can optimally borrow to offset income shocks.

I work to further extend the research of my job market paper in two directions. The first is motivated by the evidence from both the US and the Eurozone of the persistent regional divergence that can occur when member states are subject to asymmetric asset market boom-and-bust cycles. Thus, an important question concerns how regional and union-wide policies should be designed and coordinated to alleviate this divergence. To explore this issue, I construct a two-country open-economy version of the theoretical framework of my job market paper. The second question is related but is also important in its own right: how effective are various fiscal policies in alleviating the short-run and persistent effects of private deleveraging? In this context, I aim to study and compare a broader set of fiscal policy measures, such as tax- and/or borrowing-financed increases in government spending, as well as innovation subsidies.

The second course of my research contributes to the literature on the real effects of fluctuations in aggregate uncertainty. Since the seminal contribution of Bloom (2009), many studies have documented the negative effects of uncertainty shocks on economic activity. The emerging consensus is that second-moment shocks are an independent — and quantitatively important — driver of business cycles. Lately, economic policy uncertainty has been especially pronounced in the policy context with the ongoing trade war between the US and China, and the unknown future relationship between the UK and the EU.

Motivated by the recent events, in my ongoing project with Fabio Ghironi (Brizhatyuk and Ghironi 2019), we study the aggregate effects of trade-tariff and capital-controls policy uncertainty. Our specific interest is in the firm-creation effects of such shocks and their dependence on exchange-rate arrangements. The aim of another project with Joan Camilo Granados Castro (Brizhatyuk and Castro 2019) is to investigate international spillovers of uncertainty shocks. In particular, we examine in how uncertainty shocks in financial center countries affect emerging countries through swings in capital flows and exchange rates.

References

Aguiar, M. and Gopinath, G. (2007). Emerging Market Business Cycles: The Cycle Is the Trend. *Journal of Political Economy*, 115(1):69–102.

Bloom, N. (2009). The Impact of Uncertainty Shocks. *Econometrica*, 77(3):623–685.

Brizhatyuk, D. (2018). The cycle is the trend: the role of occasionally binding collateral constraints. *Working paper*.

Brizhatyuk, D. (2019). Housing market cycles, productivity growth, and household debt. *Job market paper*.

Brizhatyuk, D. and Castro, J. C. G. (2019). Uncertainty spillovers to emerging markets. *Work in progress*.

Brizhatyuk, D. and Ghironi, F. (2019). Scarring effects of uncertainty. *Work in progress*.

Comin, D. and Gertler, M. (2006). Medium-term business cycles. *American Economic Review*, 96(3):523–551.

Davis, S. J. and Haltiwanger, J. C. (2019). Dynamism Diminished: The Role of Housing Markets and Credit Conditions. Technical report.

Eggertsson, G. B. and Krugman, P. (2012). Debt, deleveraging, and the liquidity trap: A fisher-minsky-koo approach. *Quarterly Journal of Economics*, 127(3):1469–1513.

Guren, A. M., Mckay, A., Nakamura, E., and Steinsson, J. (2018). Housing Wealth Effects: The Long View. *NBER Working Paper 24729*.

Iacoviello, M. (2005). House prices, borrowing constraints, and monetary policy in the business cycle.

Jordà, Ò. (2005). Estimation and inference of impulse responses by local projections. *American Economic Review*, 95(1):161–182.

Mian, A., Rao, K., and Sufi, A. (2013). Household balance sheets, consumption, and the economic slump. *Quarterly Journal of Economics*, 128(4):1687–1726.

Romer, P. M. (1990). Endogenous Technological Change. *Journal of Political Economy*, pages 71–102.

Saiz, A. (2010). The Geographic Determinants of Housing Supply. *Quarterly Journal of Economics*, 125(3):1253–1296.