24th Annual DNB Research Conference
"The Economy in Transition: Efficient and Sustainable Policies to Support Business Dynamism"

De Nederlandsche Bank, 5th November 2021

On 5 November, De Nederlandsche Bank organized its 24th Annual Research Conference. The conference theme was: "The Economy in Transition: Efficient and Sustainable Policies to Support Business Dynamism". The conference featured a thought-provoking keynote speech by John Cochrane, a lively policy panel with Lucrezia Reichlin, Eric Bartelsman, and Rick van der Ploeg, and five high-quality research papers that addressed several key questions, such as: How can demand-side factors drive business dynamism? When/how do nominal rigidities amplify negative supply shocks? What is the role of corporate profit taxation for carbon emissions?

Olaf Sleijpen opened the conference with an insightful speech that set the stage for the upcoming fruitful discussions. In his opening address, he acknowledged the importance of business dynamism, concluding that "we simply need strong business dynamism. We need innovative start-ups to tackle the risks of climate change. We need room for failure on the business level in order not to fail on an aggregate level – in order not to fail at safeguarding our societies."

Presented papers studied various aspects underlying the broad theme of the conference, focusing primarily on demand-driven growth, productivity, business dynamism, sectoral reallocation in a pandemic, while also touching upon corporate taxation and carbon emissions.

Petr Sedláček (University of New South Wales and University of Oxford) argued that business dynamism is driven by demand-side factors and not productivity alone, as substantiated by recent empirical evidence. He proposed an endogenous growth model where firms face idiosyncratic demand growth to capture this feature, and revealed a new channel affecting firms' R&D decisions. In a nutshell, his main results showed that firm-level demand variation is important for (i) business dynamics and innovation at firm level, (ii) aggregate economic growth (documented to be 20% demand-driven), and (iii) sensitivity of the real economy to growth policies, such as R&D or operation subsidies. **Maarten de Ridder (London School of Economics)** provided a comprehensive discussion of the paper and highlighted several aspects for the authors to reflect upon.

Florin Bilbiie (University of Lausanne and CEPR) used a theoretical approach and showed that nominal prices rigidities amplify the response of entry and exit to adverse supply shocks. These distortions induce changes in profits that prompt entry-exit dynamics, setting off a feedback loop to (endogenous) productivity. These changes in net entry, in turn, amplify the initial response to the shock by generating additional curvature in the interaction between this disruption and aggregate demand. He argued that even in the setting with efficient equilibrium entry, this entry-exit multiplier triggers a powerful amplification of the welfare losses following a negative productivity shock via these second-order effects. This is particularly relevant for large shocks (i.e., COVID-19), where such nonlinearities are likely to be especially important. Yet, when entry is no longer efficient, price rigidities may also induce a first-order effect. Finally, his analysis showcases how augmenting a benchmark New Keynesian model with endogenous entry-exit increases hours worked following a positive productivity shock. **Lorenza Rossi (University of Lancaster and Pavia)** discussed this paper, providing several insightful comments (e.g., it is critical for policy analysis to disentangle the effect of net-entry from those of net-exit, adding firm heterogeneity).

Andrea Colciago (DNB and University of Milano Bicocca) argued that asymmetric effects across sectors are the distinctive feature of the COVID-19 shock. Using the Business Formation Statistics in the US, which documents a reallocation of entry and exit opportunities across sectors in the initial phase of the pandemic, he proposed an Epidemiological-Industry Dynamic model with heterogeneous firms and endogenous firms'

dynamics to rationalize these facts. His analysis implies that the cleansing effect on business dynamism of the COVID-19 crisis, which typically characterizes recessions, is sector-specific. Importantly, his framework can explain the dynamics of aggregate productivity during the crisis. Monetary policy and sticky wages emerge as central ingredients to capture reallocation effects while social distancing policies (by smoothing out cleansing in the social sector) slow down the reallocation process and lead to a protracted recession, but save lives. This paper was discussed by **Mathias Trabandt (Goethe University Frankfurt)**, who offered great insights, suggesting the authors to better clarify what is driving their result (e.g., distinguishing between the two sectors, wage versus price rigidities, etc.).

Simon Mongey (University of Chicago) presented a general equilibrium economy with oligopolistic competition and endogenous firms' dynamics to rationalize three key facts: (i) increasing aggregate and average price markups, (ii) declining employment reallocation, and (iii) rising weight of overhead costs. The key finding is that the observed trends result from changes in both technology (via changes to productivity shocks and the cost of entry) and market structure (via changes to the number of potential competitors). He showed that changes in technology and market structure result in sizable negative welfare effects of around 9 percent. However, this aggregate welfare impact masks important opposing forces: the positive effects from reallocation of business towards more productive firms are more than offset by the fact that those efficient firms use their dominance to extract rents from their customers. This analysis of welfare suggests that the policy implications are much more subtle than myopically reducing market power. Splitting up dominant firms could decrease rent extraction, but it will also destroy efficiency gains. He emphasized that analysing the impact of the dominant position of firms on product and labour market outcomes is of first order importance. Finally, he argued that these changes match cross-sectional patterns in falling business dynamism, declining equilibrium wages and labour force participation, as well as sales reallocation towards larger, more productive firms. **Riccardo Silvestrini (Erasmus University)** discussed this paper, raising several clarifying questions and providing several helpful suggestions (e.g., exploring the variety effect).

Luigi Iovino (Bocconi University) focused on quantifying the role of corporate profit taxation for carbon emissions. He documented that dirty firms pay lower profit taxes, contrary to the result under optimal taxation in the presence of pollution externalities. This carbon bias of profit taxation emerges from the fiscal advantage of corporate debt, because dirty firms use more tangible capital, allowing them to borrow more. To study the aggregate implications of various corporate taxation schemes, he developed a general equilibrium framework in which carbon emissions are a by-product of firm activity. This model implies that a policy designed to remove the debt tax shield can substantially diminish carbon emissions in steady state. This paper was discussed by **Morten Olsen (University of Copenhagen)**, who shared his valuable remarks and made several suggestions.

The policy panel with **Eric Bartelsman (Tinbergen Institute)**, **Lucrezia Reichlin (London Business School and IFRS Foundation)**, and **Rick Van der Ploeg (University of Oxford and University of Amsterdam)**, and moderated by **Guido Ascari (DNB and University of Pavia)**, focused on three key topics: the importance of global reporting standards, the macro-financial implications of climate policies/change, and the effects of pandemic policies on business dynamism and productivity growth. The fruitful discussion was opened by Lucrezia Reichlin, who emphasized during her talk that developing a comprehensive global baseline of high-quality sustainability disclosure standards will be challenging, but it will definitely help enhance the resilience of the global financial markets. Then, Rick Van der Ploeg gave a speech on the macro-financial implications of climate policies and the carbon transition. In his intervention, he made a case for the urgency to price carbon and the associated challenges. He argued that pricing carbon induces substitution from carbon-intensive to less carbon-intensive fossil fuel, prompts substitution to renewables and brings forward a carbon-free era, boosts R&D in clean fuel alternatives and energy-saving technology, and not least encourages households, firms and governments to spend more on CO2 mitigation and adaptation. He advocated that policymakers

need to credibly commit to a rising path of carbon prices. He also argued that diversification considerations might prevent driving carbon-intensive capital stock to zero if climate damages are modest, and stressed that delayed climate policy is costly and might lead to Green Paradox effects. Finally, Eric Bartelsman discussed the effects of pandemic policies and reallocation frictions on business dynamism and productivity growth. At the current juncture, with the COVID-19 pandemic still unfolding, he qualified the idea of needing more dynamism, and his main take-away message was that firms' dynamism comes with pluses and minuses. He argued that even though the temporary government subsidies deployed to prevent mass layoffs and bankruptcies, and avoid costly worker–firm separations during the ongoing pandemic had a distortionary impact on business churning, the overall effect on firms' dynamism should not be a cause of concern. This is because while business dynamism directly increases aggregate productivity if the selection entry-exit process is efficient, a more long-run (indirect) effect emerges when market shares are flexible. As entrant firms have a chance of becoming large, they have an incentive to innovate and invest in R&D. He stressed that the COVID-19 crisis created opportunities for some businesses, prompting a solid uptick in digitalization and swift development of several vaccines for the virus, which substantiate the crucial role of investing in state-of-the-art technologies and further pushing the frontier.

Finally, the conference closed with a thought-provoking keynote speech by **John Cochrane (Stanford University)** on *financial regulation and climate change.* He started his talk with the disclaimer that he does not argue that climate change is unimportant or not happening and that none of his comments reflect an argument with scientific facts. In his address, he asked whether central banks, and international institutions such as the IMF, BIS, or OECD should appoint themselves to take on climate policy or other important social, environmental or political causes, without a clear mandate to do so from politically accountable leaders. He also made a distinction concerning climate policy in general and one particular set of climate policies — policies to force banks and private companies to defund fossil fuel industries (even though alternatives are not yet available at scale) and to provide subsidized funding to an ill-defined set of "green" projects. Next, he argued that climate change does not pose any financial risk at the 1, 5, or even 10-year horizon at which one can credibly assess the risk to bank assets. In a nutshell, he strongly disagreed with the views that banks are risky because of exposure to carbon-emitting companies and that carbon-emitting company debt is financially risky because of unexpected climate changes. He also stressed that a central bank in a democracy is not an all-purpose do-good agency, with authority to subsidize what it decides to be worthy, de-fund what it dislikes, and urge banks and companies to do the same. In his words: "a central bank, whose leaders do not regularly face voters, lives by an iron contract: freedom and independence so long as it stays within its limited and mandated powers." As an advice, he highlighted the need for an expanded mandate. Focusing on Europe, he will have to rest his case only if the EU explicitly tasks the ECB implement carbon policies via defunding, bank regulation, and subsidized investment. He also explained that an explicit mandate to address climate, and only climate, would also help the central banks to defend against the upcoming demand that it might move on to every other social problem, reflecting the preferences of certain policymakers. As a final remark, he highlighted that central banks must be competent, trusted, narrow, independent, and boring. And that central banks need to refocus on their narrow core mission, and let the other institutions of society address prominent political matters.