Jonas Gathen

Curriculum Vitae

Toulouse School of Economics
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German, Born: 01.06.1993
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Research Fields

Primary: Macroeconomics, Economic Growth, Development Economics

Secondary: Political Economy

References

Fabrice Collard
Toulouse School of Economics
fabrice.collard@tse-fr.eu

Christian Hellwig
Toulouse School of Economics
christian.hellwig@tse-fr.eu

Matteo Bobba
Toulouse School of Economics
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Stéphane Straub
World Bank
sstraub@worldbank.org

Education

2019–	**PhD in Economics**, *Toulouse School of Economics*. Thesis Title: "Essays in Macro Development"
Spring 2022	**Academic Visit**, *London School of Economics*. Visiting at the invitation of Prof. Benjamin Moll
2018-2019	**M.Sc. in Economic Theory and Econometrics**, *Toulouse School of Economics*. Rank 2/21, Mention: Très bien
2017-2018	**M.Sc. in Economics (M1)**, *Toulouse School of Economics*. Rank 4/84, Mention: Très bien
2013-2017	**B.A. in Sociology, Politics & Economics**, *Zeppelin University*. Rank 1/30
2009-2012	**Highschool Diploma**, *Europaschule Bornheim*. Grade: 1.1 (Relative grade: A)

Working Papers

2023   **Making a Growth Miracle: Historical Persistence and the Dynamics of Development**, *JMP (joint work with Oscar Fentanes).*

Abstract: What explains growth miracles? We argue that growth miracles are driven by a fundamental race: as the economy tries to catch-up to its steady state, changes in the economic environment move the steady state itself and provide new potential for catch-up growth. We quantify this race using 40 years of plant-level manufacturing panel data from Indonesia. We empirically show that large population changes and the slow entry, exit and growth of plants drive prolonged periods of catch-up growth. We then build a model of plant dynamics, which we estimate on the micro data along the observed growth path without assuming that the economy is at a steady state. While catch-up growth starting from initial conditions in 1975 accounts for 42% of Indonesia's subsequent industrialization, new changes in worker and plant demographics induce new catch-up growth. In the end, the economy never catches up.

2023   **The Aggregate Costs of Political Connections**, *R&R at JPE Macro.*

Abstract: This paper quantifies the aggregate costs of political connections using a general equilibrium model in which politically connected firms benefit from output subsidies and endogenously spend resources on rent-seeking activities. The model is structurally estimated using rich firm-level data for the Indonesian manufacturing sector and a firm-level measure of political connectedness based on a natural experiment from the authoritarian rule of Suharto at the end of the 1990s. A major innovation is to non-parametrically identify the output subsidy from differences in distributions of revenue-based total factor productivity (TFP) across connected and non-connected firms. In general equilibrium, both the distribution and the level of subsidies to connected firms matter. I find that subsidies to connected firms are too high and dispersed, costing the economy between 1.0-4.7% of aggregate output. At most, 45% of these output costs are due to the misallocation of factors of production towards connected firms. The large remainder is explained by the costs of subsidizing connected firms instead of putting saved subsidies to more productive use.

Work in Progress

2023   **On the nonparametric identification of productivity growth in the presence of selection**.

Abstract: How much of aggregate productivity growth is driven by common productivity improvements across firms and how much is driven by the better selection of firms? In this short paper, I study the non-parametric identification of these two sources of productivity growth. I propose a framework that nests various endogenous and exogenous growth models and requires only (mild) restrictions on exit behavior and the shocks that drive heterogeneity in productivity. In this framework, separate identification of selection and a common, time-varying productivity growth term involves solving two selection biases. The first is a static or compositional selection bias whereby average productivity can increase due to entry and exit in the absence of any within-firm changes in productivity. The second, dynamic selection bias, arises from the persistence of productivity shocks and is driven by mean reversion. I show how a weighted average of within-plant productivity changes allows separate identification. Weights are chosen such that the dynamic selection bias exactly cancels and can be found by constructing a stationary distribution of the underlying productivity shocks from a synthetic panel of firms over time. I show how the identification approach can be extended to studying cohort effects and more general forms of heterogeneous productivity growth.

2022 **Income Inequality and the Dynamics of Structural Change**.

Abstract: In this paper, I revisit the endogenous demand drivers of economic growth and structural change. I do so by studying how income heterogeneity affects structural change through demand and how changes in demand in turn induce further differential productivity growth that drives growth and further changes in income. Drawing on representative Indian household-level consumption data, I first show that changes in the income distribution are highly predictive of structural change; taking demand at the product and sector level across the entire income distribution in 1987, but now feeding in the income distribution 25 years later (and thereby fixing prices, preferences and quality), explains about 60-80% of structural change out of agriculture and more than 100% of the structural change into manufacturing. Secondly, I link predictable demand changes at the product-level due to changes in the entire income distribution to changes in plant-product-level productivity. In contrast to standard endogenous growth models, I do not find that productivity rises differentially more for products/industries that see differentially higher (exogenous) demand increases. I currently explore the robustness, reasons for and implications of these results.

2022 **Decentralization in Indonesia and Local Outcomes**, *joint work with Stéphane Straub & Vitalijs Jascisens*.

Abstract: We analyze Indonesia's big-bang decentralization, which in the early 2000s translated into massive transfers of resources to local districts. Using the non-linearity of the allocation rule to circumvent the potential endogeneity that arises when regressing local outcomes on district revenues, we answer two questions. First, how does the level and composition of local government spending respond to additional revenues? Second, given this spending response, what is the impact on development outcomes of households and firms? We use these results to perform structural estimates of the efficiency of spending across three categories of outcomes, namely infrastructure, health, and education, and evaluate its district-level determinants.

2020 **Government jobs for talents, cronies or sale? Estimating latent government worker skills**.

Abstract: This paper provides a structural approach to estimate latent government worker skills. The approach builds on using competitive wages in comparable private sector jobs to link latent skills to skill-related observables. This mapping allows to apply Machine Learning tools to best predict unobserved skills and use these estimates to predict government worker skills out-of-sample. I showcase the approach in the context of Indonesia from 1988-2015 using individual-level panel data with rich skill-related observables. I show how latent government worker skills can be used to estimate a reduced-form selection rule according to which the government de facto selects its workers, flexibly capturing a variety of distortions in government hiring. I find small improvements in the skills of the government workforce as well as small improvements in the government selection rule that are both indistinguishable from zero. I can rule out larger positive effects and thus provide evidence that democratization and decentralization reforms in Indonesia have not led to large improvements in government hiring in Indonesia up until 2014.

Teaching & Work Experience

Teaching at TSE

Fall 2021	**Macroeconomics 1 (PhD 1st year)**, *Prof. Collard & Prof. Fève.*
Spring 2020/2022	**Macroeconomics 2 (PhD 1st year)**, *Prof. Hellwig & Prof. Gonzalez-Aguado.*
Spring 2020/2023	**Introductory Econometrics (3rd year BA)**, *Prof. Gregoir, Prof. Lavergne.*

Work Experience

2018–2020	**Research Assistance**, *Prof. Daniel Chen (TSE) & Prof. Elliott Ash (ETH).* Worked on Machine Learning and Causal Inference applications in Law and Economics.
2018	**Own field Research**, *On various tourist markets in Vietnam (with Franziska Quoß).* Semi-structured interviews in the oil-paintings, tailoring and ceramics markets including managing two local research assistants.
2017	**Research Assistance**, *Centre for the Study of African Economies (CSAE)*, Oxford. Supervisors: Dr. Mareen Mahmud & Prof. Stefan Dercon
2014	**Internship**, *Bangkok Office*, Friedrich-Ebert-Foundation. Prepared policy briefings and presentations on the political and economic developments in Thailand, especially with respect to the military coup in 2014
2012–2013	**Weltwaerts program & Internship**, *Cambodia*, GIZ & Parliamentary Institute of Cambodia.

Scholarships and Grants

2022	BQR Funding & EUR Mobility Grant for academic visit
2017-2019	Scholarship holder of the *Deutsche Akademische Auslandsdienst* (DAAD)
2013-2019	Scholarship holder of the *Friedrich-Ebert-Foundation*

Professional Activities

Memberships	American Economic Association, European Economic Association
Refereeing	Quarterly Journal of Economics
Departmental	PhD Well-being & Anti-harassment survey, Macro Workshop Organization (2022), Macro Development Reading Group (2019-2022)

Software

Strong	R, RMarkdown, Julia
Intermediate	Stata, Python (Numba + Numpy), Latex, Git(hub), LaTeX, Matlab, MS Office

Languages

Fluent	English, German (native)
Intermediate	French