

# Stefanie Stantcheva: Research Statement

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How can we best use the tax and transfer system to raise revenue, reduce inequality, and foster the productivity of firms and individuals? Designing a just and efficient income tax system has become increasingly important in light of tightening governmental fiscal constraints and rising income inequality. Poorly designed taxes could outright discourage productive activity, economic growth, and progress. My research in optimal taxation develops theoretical frameworks and combines them with new empirical evidence to improve our understanding of the effects of taxation and help guide the debate on tax design. I focus on three main issues: the dynamic effects of taxation, the corrective role of taxation in the presence of asymmetric information and other market imperfections, and the application of social choice theory to understand the determinants of tax and transfer policy.

## Dynamic Tax Policy

The effects of taxes are not just contemporaneous and short-lived. Instead, one needs to take into account their medium- and longer-term dynamic effects, such as their impacts on (i) the acquisition of human capital by individuals, (ii) innovation, and (iii) savings and capital accumulation.

### *Taxation and Human Capital:*

In my first line of research, I constructed a model of the life cycle in which people decide how much human capital to acquire at each stage of their life, either in the form of formal schooling Stantcheva (2017) or job training Stantcheva (2014a). I derive the optimal integrated system, comprised of a mix of taxes, subsidies, grants, and income-contingent education loans, which provides incentives for human capital accumulation while also insuring against earnings risk. A central result is that it matters greatly whether education and training mostly benefit the more talented and already advantaged people, or level the playing field across people with different abilities or backgrounds. In Stantcheva (2015), I consider the design of education subsidies and bequest taxation in an intergenerational model where parents invest in the human capital of their children. In Akcigit, Soler, Miguelez, Stantcheva, and Sterzi (2016), we show theoretically and empirically that high-skilled individuals (inventors) acquire human capital by interacting with others around them, and that tax policy can potentially hinder this process.

### *Taxation and Innovation:*

Tax incentives can be a powerful tool to encourage innovation. In Akcigit, Hanley, and Stantcheva (2016), we study the optimal design of R&D policies and corporate taxation to correct for technology spillovers across firms and the non appropriability of innovations. The key contribution is to consider asymmetric information: the government does not know which firms are the most productive. Simple, often used innovation policies, such as linear R&D subsidies and linear profit taxes, lead to large revenue losses relative to the optimal mechanism. Taxation can also have detrimental effects on innovation if it sets the wrong incentives for

innovators. In Akcigit, Baslandze, and Stantcheva (2016), we use patent data from the U.S. and Europe since 1977 and find that “superstar” inventors are significantly less likely to remain in or move to countries with higher top tax rates. In on-going work, I explore the long-run effects of both personal and corporate income taxation on innovation in the U.S. over the 20th century using historical patent and R&D facilities records. I am also working on several large-scale data projects using French administrative tax records, linked to employment and patent data to further explore the link between taxation and innovation.

#### *Capital and Wealth Taxation:*

In Saez and Stantcheva (2016b), we develop a simpler theory of optimal capital taxation that expresses optimal tax formulas in terms of empirical elasticities and social preferences. We use them to simulate optimal taxes with U.S. tax return data on labor and capital incomes. In on-going work with Gabriel Zucman (UC Berkeley), I study how capital income in 20 OECD countries has reacted to taxation since the 1960s, whether this has changed with more global integration, and how tax elasticities have been influenced by other policies. This line of work starts with the collection of a new half-century-long systematic database of capital tax rates across countries.

### **Market Imperfections and Tax Policy**

Market imperfections, such as asymmetric information, modify the responses of agents to taxation, imply a potential corrective role for taxation, and can affect optimal tax design. In Stantcheva (2014b), I consider asymmetric information as a major market imperfection in the labor market: firms do not know workers’ talents before hiring them. As a result, high productivity workers are caught in a “rat race,” in which they have to work excessively to signal their talent. Surprisingly, this may help the government redistribute income at a lower efficiency cost. In Piketty, Saez, and Stantcheva (2014), top earners’ incomes are not equal to their economic product, and they can respond to taxes through three channels: labor supply, tax avoidance, and compensation bargaining. We present empirical evidence consistent with such avoidance and bargaining effects, which have important implications for optimal tax design.

### **Applied Social Choice Theory**

The tax and transfer system is fundamentally the result of a balance struck by society in accordance with core principles of social fairness and justice. Most modern taxation theory relegates these considerations to the background and focuses almost entirely on the efficiency costs of taxation. A richer social choice theory based on empirical evidence that accounts for how society decides on taxes and public goods is needed to bring together the advances in optimal taxation and the abundant literature on social preferences.

#### *Theory of Social Preferences:*

It is challenging to include broader and more complex social objectives that can justify some important features of the real world tax and transfer system without compromising tractability. In Saez and Stantcheva (2016a), we propose a new way to evaluate tax reforms, by aggregating losses and gains of different individuals using “generalized social marginal welfare weights” that directly capture society’s concerns for fairness allowing us to cleanly separate individual

utilities from social weights. Suitable weights can help reconcile discrepancies between the welfarist approach and actual tax practice, as well as unify in an operational way the most prominent alternatives to utilitarianism such as Libertarianism, Equality of Opportunity, or Poverty alleviation.

*Experimental and Survey Evidence on Social Preferences:*

I have also explored social preferences empirically, making use of the new “social laboratories” offered by online platforms to collect information about knowledge of, and preferences toward, income redistribution and tax design. In Kuziemko, Norton, Saez, and Stantcheva (2015), we analyze how information about inequality and taxes affects preferences for redistribution. In Alesina, Stantcheva, and Teso (2016), we collect new cross-country survey and experimental data from five countries to investigate how beliefs about intergenerational mobility affect preferences for redistribution.

Going forward, I will continue to seek to improve our understanding of optimal tax policy through new theoretical frameworks that enable thorough quantitative assessments of tax reforms, and by providing empirical evidence on the effects of taxes based on large-scale administrative data linking tax returns, employment, and patent data.

## References

- Akcigit, U., S. Baslandze, and S. Stantcheva (2016). Taxation and the international mobility of inventors. *American Economic Review* 106(10), 2930–2981.
- Akcigit, U., D. Hanley, and S. Stantcheva (2016). Optimal taxation and r&d policies. Working paper, Harvard University.
- Akcigit, U., S. C. Soler, E. Miguelez, S. Stantcheva, and V. Sterzi (2016). Dancing with the stars: Interactions and human capital accumulation. Working paper, Harvard University.
- Alesina, A., S. Stantcheva, and E. Teso (2016). Intergenerational mobility and support for redistribution. Working Paper 23027, National Bureau of Economic Research.
- Kuziemko, I., M. Norton, E. Saez, and S. Stantcheva (2015). How elastic are preferences for redistribution? evidence from randomized survey experiments. *American Economic Review* 105(4), 1478–1508.
- Piketty, T., E. Saez, and S. Stantcheva (2014). Optimal taxation of top labor incomes: A tale of three elasticities. *American Economic Journal: Economic Policy* 6(1), 230–71.
- Saez, E. and S. Stantcheva (2016a). Generalized social marginal welfare weights for optimal tax theory. *American Economic Review* 106(1), 24–45.
- Saez, E. and S. Stantcheva (2016b). A simpler theory of optimal capital taxation. Working Paper 22664, National Bureau of Economic Research.
- Stantcheva, S. (2014a). Learning and (or) doing: Human capital investments and optimal taxation. Working paper, Harvard University.
- Stantcheva, S. (2014b). Optimal income taxation with adverse selection in the labour market. *Review of Economic Studies* 81, 1296–1329.
- Stantcheva, S. (2015). Optimal income, education and bequest taxes in an intergenerational model. Working Paper 21177, National Bureau of Economic Research.
- Stantcheva, S. (2017). Optimal taxation and human capital policies over the life cycle. *Journal of Political Economy*, forthcoming.