## Background

Gabriel Unger

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## 1 The Productivity Slowdown

## 2 Our Current Understanding of the Productivity Slowdown

- The productivity slowdown is a disproportionately under-researched topic in economics today relative to its collosal importance. I suspect this is a function of the fact that (1) macro research is disproportionately skewed towards the short term (New Keynesian models, 'what's the optimal monetary policy?', etc) to the point where the word "macro" today has become a shorthand for "business cycle macro," and (2) it is simply a very difficult problem, and not obviously amenable to progress within any well-developed paradigm we have now.
- The leading theory of the productivity slowdown, both within economics and probably in the broader world of policy and politics, is kind of an anti-theory: that technological progress has just exogenously slowed down. Under this view, aggregate productivity growth is basically a simple function of some deeper primitive of technological progress, technological progress is some exogenous thing, it slowed down during the 1970s and 1980s, sped up a bit in the late 1990s with the dissemination of the Internet, and then slowed down again (I call this the "cosmic theory"). This view is expressed in the Bob Gordon book ("The Rise and Fall of American Growth"), in some recent papers (Bloom Jones Van Reenen, "Are Ideas Getting Harder to Find?"), and even amongst some entrepreneurs (see e.g. Peter Thiel's "What Happened to the Future?").
- There are two other serious theories within economics now about the slowdown. Second, some of the antitrust-monopoly people argue that the rise of big monopolistic firms has led to the slowdown, either because big monopolists constrict output (Philippon) or because in the concentrated sectors, both the leading monopolists and the fringe firms now have diminished incentives to innovate (Aghion Klenow). Third, some people (mostly Haltiwanger et al) argue that there is diminished pace of market reallocation in the US economy today, because of the rise of some kind of

unidentified policy wedges (occupational licensing, zoning regulations, etc.), which in turn limits aggregate productivity growth.

• Beneath this level, sometimes people write one-off papers where they show that if you take some model off the shelf and tweak a parameter you can generate a productivity slowdown (e.g. Hopenhayn 2020 takes the Hopenhayn 1992 model of firm heterogeneity, and shows that if you age the population in the model, you generate a productivity slowdown via less start-ups from few younger people). But it's difficult to take these kinds of papers seriously as science, and one wonders whether even the people writing them actually believe in them.

## 3 Growth Theory Today

- Growth theory is in a strange place today. Overall it obviously does not command the excitement and attention in did in the 1980s and 1990s (the heyday of Endogenous Growth Theory 1.0, cross-country growth empirics, etc).
- In fact, right now should be an extremely auspicious moment for growth theory, because of the convergence of three developments. First,