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Author: Mark Gertler, Kenneth Rogoff

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Abstracts

The Case of the Missing Productivity Growth, Or Does Information Technology Explain Why Productivity Accelerated in the United States but Not in the United Kingdom?

SUSANTO BASU, JOHN G. FERNALD, NICHOLAS OULTON, AND SYLAJA SRINIVASAN

Solow's paradox has disappeared in the United States but remains alive and well in the United Kingdom. In particular, the United Kingdom experienced an information and communications technology (ICT) investment boom in the 1990s, in parallel with the United States, but measured total factor productivity (TFP) has decelerated rather than accelerated in recent years. We ask whether ICT can explain the divergent TFP performance in the two countries. Stories of ICT as a general purpose technology (GPT) suggest that measured TFP should rise in ICT-using sectors (reflecting either unobserved accumulation of intangible organizational capital, spillovers, or both) but perhaps with long lags. Contemporaneously, investments in ICT may in fact be associated with lower TFP because resources are diverted to reorganization and learning.

In both the United States and the United Kingdom, we find a strong correlation between ICT use and industry TFP growth. The U.S. results are consistent with GPT stories: the acceleration after the mid-1990s was broadbased—located primarily in ICT-using industries rather than ICT-producing industries. Furthermore, industry TFP growth is positively correlated with industry ICT capital growth in the 1980s and early 1990s. Indeed, as GPT stories would suggest, if we control for past ICT growth, industry TFP growth appears negatively correlated with increases in ICT use in the late 1990s.

A somewhat different picture emerges for the United Kingdom. TFP growth does not appear correlated with lagged ICT investment. But TFP growth in the 1990s is strongly and positively associated with the growth of ICT capital services, while being strongly and negatively associated with the growth of ICT investment. If unmeasured investment in complementary capital is correlated with ICT investment, as we argue, then this finding too is consistent with the GPT story. Comparing the first and second halves of the 1990s, however, the net effect of ICT is positive, suggesting that ICT cannot explain the observed

TFP slowdown. On the other hand, our results do suggest, albeit tentatively, that the United Kingdom could see an acceleration in TFP growth over the next decade.

On the Welfare Consequences of the Increase in Inequality in the United States

DIRK KRUEGER AND FABRIZIO PERRI

We investigate the welfare consequences of the stark increase in wage and earnings inequality in the United States over the last 30 years. Our data stems from the Consumer Expenditure Survey, which is the only U.S. dataset that contains information on wages, hours worked, earnings, and consumption for the same cross section of U.S. households. First, we document that, while the cross-sectional variation in wages and disposable earnings has significantly increased, the overall dispersion in consumption has not changed significantly. We also show that households at the bottom of the consumption distribution have increased their working hours to a larger extent than the rest of the population. To assess the magnitude and the incidence of the welfare consequences of these trends, we estimate stochastic processes for earnings, consumption, and leisure that are consistent with observed cross-sectional variability (both within and between education groups) and with household mobility patterns. In a standard lifetime utility framework, using consumption and leisure processes (as opposed to earnings processes) results in fairly robust estimates of these consequences. We find that about 60 percent of U.S. households face welfare losses and that the size of these losses ranges from 1 to 6% of lifetime consumption for different groups.

Perspectives on Behavioral Finance: Does "Irrationality" Disappear with Wealth? Evidence from Expectations and Actions

ANNETTE VISSING-JORGENSEN

This paper discusses the current state of the behavioral finance literature. I argue that more direct evidence about investors' actions and expectations would make existing theories more convincing to outsiders and would help sort behavioral theories for a given asset pricing phenomenon. Evidence on the dependence of a given bias on investor wealth/sophistication would be useful for determining if the bias could be due to (fixed) information or transaction costs or is likely to require a behavioral explanation and for determining which biases are likely to be most important for asset prices.

I analyze a novel dataset on investor expectations and actions obtained from UBS/PaineWebber/Gallup. The data suggest that, even for high-wealth investors, expected returns were high at the peak of the market, many investors thought the market was overvalued but would not correct quickly, and investors' beliefs

depended strongly on their own investment experience. Then I review evidence on the dependence of a series of "irrational" investor behaviors on investor wealth and conclude that many such behaviors diminish substantially with wealth. As an example of the cost needed to explain a particular type of "irrational" behavior, I consider the cost needed to rationalize why many households do not invest in the stock market.

Disagreement about Inflation Expectations

N. GREGORY MANKIW, RICARDO REIS, AND JUSTIN WOLFERS

Analyzing 50 years of inflation expectations data from several sources, we document substantial disagreement among both consumers and professional economists about expected future inflation. This disagreement shows substantial variation over time, moving with inflation, the absolute value of the change in inflation, and relative price variability. We argue that a satisfactory model of economic dynamics must address these important business-cycle moments. Noting that most macroeconomic models do not endogenously generate disagreement, we show that a simple sticky-information model broadly matches many of these facts. Moreover, the sticky-information model is consistent with other observed departures of inflation expectations from full rationality, including autocorrelated forecast errors and insufficient sensitivity to recent macroeconomic news.

Optimal Monetary and Fiscal Policy: A Linear-Quadratic Approach

PIERPAOLO BENIGNO AND MICHAEL WOODFORD

We propose an integrated treatment of the problems of optimal monetary and fiscal policy for an economy in which prices are sticky (so that the supply-side effects of tax changes are more complex than in standard fiscal analyses) and the only available sources of government revenue are distorting taxes (so that the fiscal consequences of monetary policy must be considered alongside the usual stabilization objectives). Our linear-quadratic approach allows us to nest both conventional analyses of optimal monetary stabilization policy and analyses of optimal tax-smoothing as special cases of our more general framework. We show how a linear-quadratic policy problem can be derived which yields a correct linear approximation to the optimal policy rules from the point of view of the maximization of expected discounted utility in a dynamic stochastic general-equilibrium model. Finally, in addition to characterizing the optimal dynamic responses to shocks under an optimal policy, we derive policy rules through which the monetary and fiscal authorities may implement the optimal equilibrium. These rules take the form of optimal targeting rules, specifying an appropriate target criterion for each authority.

Inflation Targeting in Emerging Market Economies

ARMINIO FRAGA, ILAN GOLDFAJN, AND ANDRÉ MINELLA

This paper assesses inflation targeting in emerging market economies (EMEs) and develops applied prescriptions for the conduct of monetary policy and inflation-targeting design in EMEs. We verify that EMEs have faced more acute trade-offs—higher output and inflation volatility—and worse performance than developed economies. These results stem from more pronounced external shocks, lower credibility, and a lower level of development of institutions in these countries. To improve their performance, we recommend high levels of transparency and communication with the public and the development of more stable institutions. At an operational level, we propose a procedure that a central bank under inflation targeting can apply and communicate when facing strong supply shocks, and we suggest a monitoring structure for an inflation-targeting regime under an International Monetary Fund (IMF) program.