



October 2022

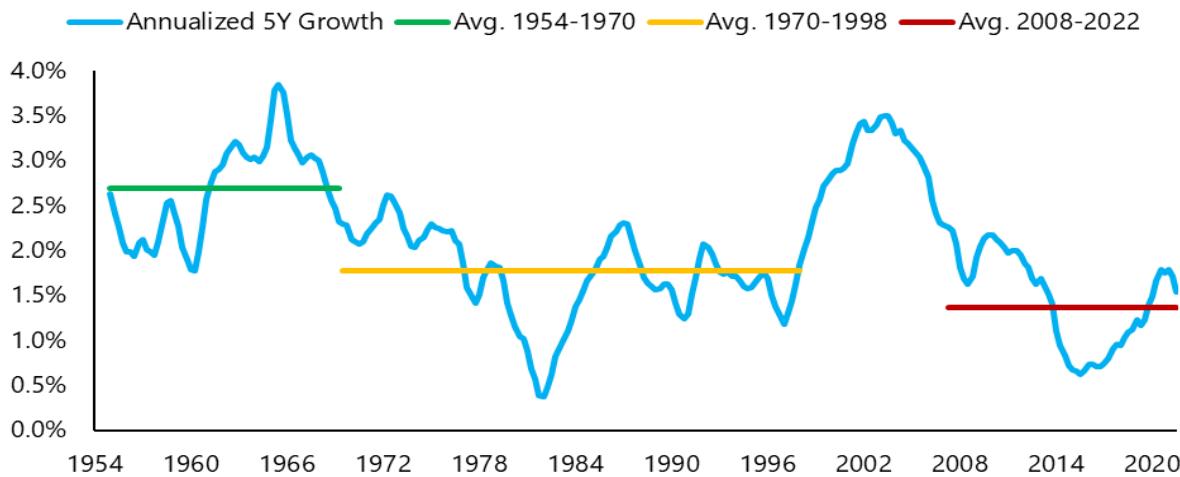
The Pandemic Boosted Digital Technology, Not Productivity

For this issue of Briefings, we revisit the Solow Paradox, which asked why computers show up everywhere but productivity numbers. This mystery deepened during the pandemic, which greatly increased the use of new digital technology and services worldwide, but interrupted the long slump in productivity growth for only a few quarters. The reason we think is a larger force at play: the unproductive hand of government.

1. Declining Productivity in the Computer Age

The chart below shows the big picture. Since the dawn of the computer age, global productivity has trended down in two great waves, between 1970 and the late 1990s, and between the mid-2000s and today. In between, the decline was interrupted by a resurgence during the dotcom boom.

Chart 1. US Productivity Growth (Percent)



Source: Haver Analytics, Breakout Capital calculations

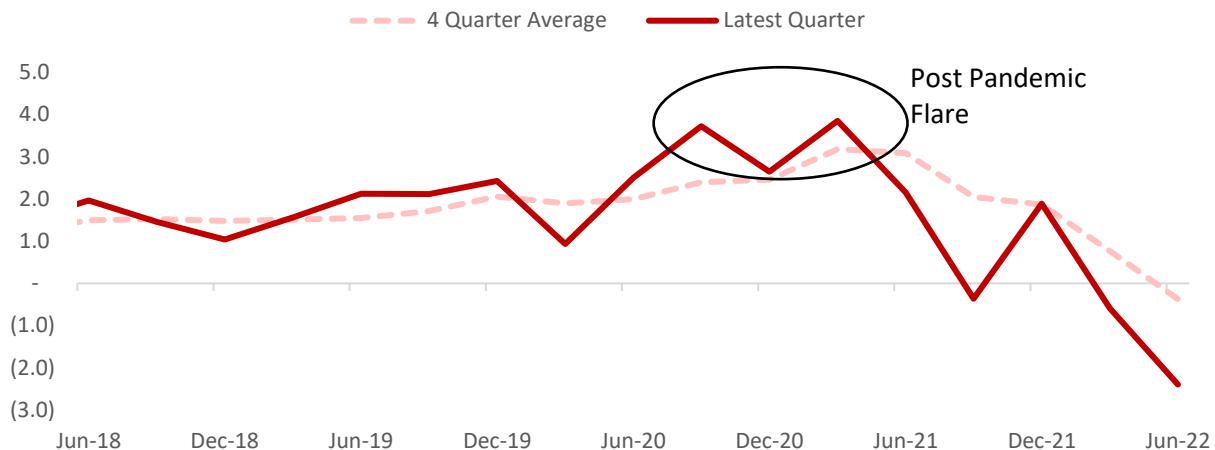
2. The Pandemic Flare

There are two prevailing explanations for this slump. One is that internet technology does more to distract people with cat videos and games than promote productivity. But that can't account for the productivity revival during the dotcom boom 20 years ago. The other is that the impact of digital technology on productivity also comes in waves. So just wait, the next one will come. But if that were so, why didn't it come during the pandemic, when use of digital tech exploded, but productivity flared briefly and fizzled—as chart 2 below shows.

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Chart 2. US Productivity Growth around the pandemic (Percent yoy growth)



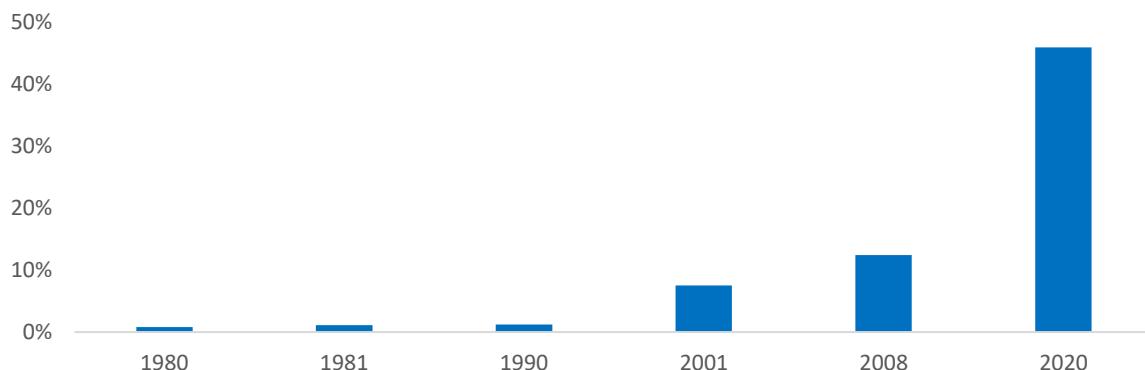
Source: Haver Analytics, BLS, Breakout Calculations

3. Big Government – The Missing Link?

We think that a closer look at the timing and location of the productivity slump points to an alternative explanation: the expanding role of government, particularly in developed countries.

Starting in the 1970s, major capitalist countries began running budget deficits virtually every year, in good times and bad. Government stimulus (including both monetary and fiscal) has smashed records in the last three major crises, rising nearly sevenfold in the leading industrial economies between the recessions of 2001 and 2020 to around 45 percent of GDP.

Chart 3. Total G4 Stimulus (including off balance sheet) – as a percent of GDP



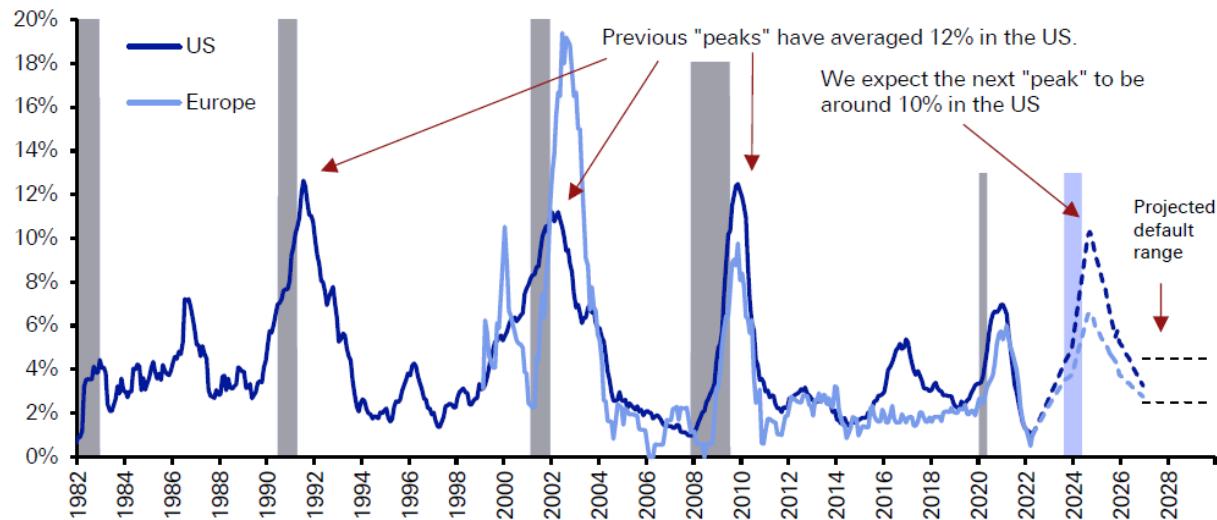
Source: Haver Analytics, IMF, UBS, Breakout Capital Calculations

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With increasingly generous rescues, corporate defaults have fallen in each crisis, even as recessions deepened after 2000. In the United States, Deutsche Bank has argued, the default rate has been trending down despite the increased severity of the 2009 and 2020 recessions (Chart 4 below). In Europe, the trend is even more dramatic: the default rate on speculative corporate credit fell from around 20 percent after the 2001 recession to 10 percent after 2008 and 5 percent in 2020.

Chart 4. S&P speculative grade issuer default rates and projected path



Source: DB Report: Default Study; 6th June 2022

As the cleansing effect of defaults and downturns faded, so did entrepreneurial dynamism. New business creation plummeted, leaving behind a stock of older, bigger, fewer companies. Researchers began linking the productivity slump to the bloated beneficiaries of government rescues, including booming financial markets, monopolies and zombies--lifeless companies that survive on fresh debt. Zombies barely existed in 2000 but now account for 20 percent of listed companies in the United States, and higher shares in Europe.

It is no accident, we think, that productivity growth slumped to a historic low of less than one percent in the last decade, despite a new tech boom, because governments and central banks in the developed nations were intervening so aggressively in the economy.

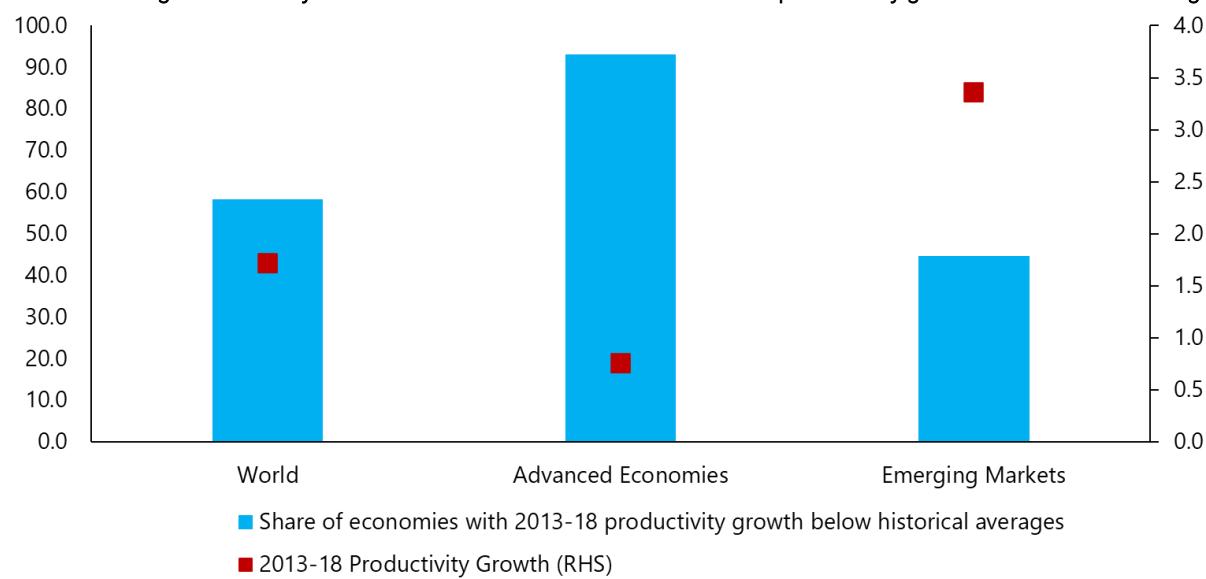
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4. Where Productivity Is—and Is Not—Slumping

Consider now the location of the productivity slump. It was concentrated in developed economies, where the recent productivity growth was recorded at a meagre 0.8 percent. In emerging economies, productivity was rising steadily, from below zero in the late 1970s to a brief peak above 5 percent in the late 2000s. Despite backsliding in recent years, productivity in emerging countries still grew at 3 percent in the 2010s—above the trend of the prior three decades. In recent years, nearly all developed countries have seen productivity drop while most emerging countries have not (Chart 5 below).

Chart 5. Average Productivity Growth and share of economies with recent productivity growth below historical long-run



Source: World Bank Productivity Report, 2018

5. Signs Point to the State

Why this difference? While developed economies were intervening more heavily to dampen recessions and socialize economic losses during this era, emerging economies were moving the opposite way, opening to competition and market forces. Typically, they lacked the resources to intervene against downturns, and were forced to reform instead.

In short, big government was drowning out the positive impact of technology—but mainly in developed countries. Now comes a twist, the return of inflation and the end of easy money, which will make it much harder for even rich nations to spend their way out of recessions. Whether that's enough to revive creative destruction and global productivity growth has yet to be seen.

For more information,
please contact:

Cheryl Galante, Head of Investor Relations
Main 212 497 5100 | Direct 646 216 8400
cgalante@breakout-capital.com

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