Why has productivity growth slowed down? Comment

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Goldin, Koutroumpis, Lafond and Winkler (2022)

They find that a slowdown in TFP growth plus a slowdown in capital accumulation account for what has happened since 2005 in 5 advanced countries:

France, Germany, Japan, UK and US.

[Why not since 2007? They don't really explain.]

[Pity that Italy was not included]

They have synthesised a huge and varied literature (very useful to the rest of us!).

They have tried to quantify a large range of factors.

Necessarily some of their estimates are highly uncertain. E.g. they calculate that the share of the TFP slowdown in the US accounted for by a decline in allocative efficiency varies from **4**% to **60**%, depending on the method, with an average of **38**% (all 3 methods assume constant returns to scale) . They apply this figure to the other 4 countries too. The other **62**% is ascribed to a technology slowdown.

They argue that a good explanatory factor must (1) be quantitatively significant; (2) fit the timing; and (3) cover a large number of countries, since the slowdown has been global.

So we are looking for a common shock affecting most of the world. If so, two candidates:

1. The Global Financial Crisis 2008- (GFC)
   But this has to have persistent effects to work as an explanation
   (Bernanke, Diamond and Dybvik have just won the Nobel on this topic!)

2, A slowdown in innovation centred in the US. This could be due to

   a. Exhaustion of good ideas ("fishing out")
   b. Declining competition so less innovation

Factors Goldin et al. consider

1. Structural change: stagnation through shift to services (Baumol cost disease argument).

Using Tang-Wang decomposition, they find that structural change is important only for Germany. But Rincon-Aznar et al. (Table 4) disagree: Germany does not stand out.

BUT the timing doesn't fit. And empirically refuted by Nordhaus (2021) for US. Baumol's original argument assumed that all services are final consumer ones but main shift has been to intermediate services. This changes the conclusion: Oulton (OEP, 2001) and (IPM, 2016). These papers showed importance of sum of Domar weights as a summary statistic, also emphasised in recent macro literature e.g. Baqaee and Farhi (2019).

Factors Goldin et al. consider

2. Migration (sorry to mention the M word!)

Argument here is NOT that migration caused the global slowdown but rather that it exacerbated it in some countries which had exceptionally open labour markets. So potentially this can explain e.g. why France has had better labour productivity growth since 2007 than Britain (Oulton 2019). For this argument to work something else has to be going on. Candidate: a decline in the growth rate of demand for a country's exports following the GFC (a real not a nominal shock).

Goldin et al. have an odd argument that a *decline* in migration might have led to the global slowdown since historically some entrepreneurs have been migrants. Which country is this meant to apply to? Britain now has 6 million migrants in its workforce so there should be Silicon valleys springing up everywhere.

Factors Goldin et al. consider

3. Innovation slowdown

Since 2007 BEA's computer price index has ceased to fall rapidly. Is this a real slowdown or an artefact? If correct, is it offset by major developments in AI (and in software generally)?

4. The GFC

They take seriously the possibility that the GFC has had long term consequences, i.e. NOT just an ordinary recession in 2008-2009. But we don't have a good macro theory of stagnation rather than of temporary recession (V-shaped recovery). Hysteresis in labour markets seemed important in 1980s but doesn't seem so important today, although long Covid may be a factor going forward).

Another possibility: reverse causality

The authors use a growth accounting framework. Most people see this through the lens of the Solow model. In that model, lower TFP growth causes lower capital accumulation.

Is the reverse possible too? Could a slowdown in demand cause a slowdown in TFP (due to lower positive externalities)?