Is Slow Growth the 'New Normal' for Europe?

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Robert Mundell Lecture,
International Atlantic Economic Conference, Berlin, March 23, 2017

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Introduction

- ‘New-economy optimism’ has been superseded by ‘secular-stagnation pessimism’
- There is a new productivity slowdown … but is it temporary or permanent?
- **NB:** Alvin Hansen (1939) (1951) proposed two versions of ‘secular stagnation’ … technological progress was either too fast or too slow

Growth Rates in Different Periods (% per year)

	United States Real GDP/Person	United States Real GDP/Hour Worked	EU 15 Real GDP/Person	EU 15 Real GDP/Hour Worked
1950-73	2.5	2.6	4.0	4.9
1973-95	1.7	1.3	1.9	2.5
1995-2007	2.2	2.2	2.0	1.5
2014-23			1.0	0.8
2016-26	1.0	1.4		

Sources: The Conference Board (2016); Havik et al. (2014); United States Congressional Budget Office (2016)

A Paradox

- Productivity growth is very weak yet technology seems to be advancing rapidly; fear of robots is apparent
- Possible explanations:
  - measurement issues
  - aftermath of crisis
  - low economic impact of innovation
  - technology impact high but not here yet
  - supply-side policy has deteriorated

The Slowdown is Not Mis-Measurement

- **Consensus** in recent papers so the real issue is about prospects for trend growth
- Substantial part of gains from ICT is non-market production but same pre-crisis (Byrne et al., 2016)

- Real business services output continues to be badly measured (Oulton, 2016)
- **NB:** 'Missing output' = $2.7 trillion but estimates of omitted consumer surplus <5 per cent of this (Syverson, 2016)

The Productivity Puzzle

- Labour productivity is well **below** what would have been expected on **pre-crisis trend path**
- Financial crisis has reduced level of Y* by 7.5% (Ollivaud & Turner, 2015)
- (Backward-looking) time series econometrics alleges trend growth now appreciably lower (Antolin-Diaz et al., 2017)
- Shortfall not fully understood but misallocation of resources resulting from crisis has played a big part (Riley et al., 2015; Gamberoni et al., 2016)

T + 10 Growth Projections

- Recent European Commission analysis based on production function approach (Havik et al., 2014)
- Sophisticated extrapolation of recent trends
- Implies disappointing future in which Europe falls further behind the USA – **long-run secular stagnation is a real risk** for some countries
- **NB**: the productivity slowdown of the 1970s was followed by the ICT Revolution which was not foreseen then

Growth of Potential Output and Its Sources

(% per year)

	Real GDP	*Hours Worked*	*GDP/Hour Worked*	*TFP*
1995-2007				
EA12	**2.0**	**0.6**	**1.4**	**0.8**
EU15	**2.2**	**0.6**	**1.6**	**1.0**
USA	**3.0**	**0.8**	**2.2**	**1.4**
2014-2023				
EA 12	**1.1**	**0.3**	**0.8**	**0.5**
EU15	**1.1**	**0.3**	**0.8**	**0.5**
USA	**2.4**	**0.9**	**1.5**	**1.0**

Source: derived from Havik et al. (2014)

What Does OECD (2014) Project for Post-Crisis Europe?

- Crisis has levels but not growth-rate effect
- Basically, it is better than **pre-crisis 'business as usual'**
- Catch-up productivity growth resumes and slow convergence towards 'best-practice' supply-side policy continues
- This 'growth model' approach is **much more optimistic** than extrapolation of recent trends (Antolin-Diaz et al., 2016)

OECD Future Growth Projections, 2014-2030 (% per year)

	Real GDP	*Employment*	*GDP/Worker*	*TFP*
United States	2.4	0.5	1.9	1.6
EU15	1.8	0.2	1.6	1.2
France	2.2	0.3	1.9	1.2
Germany	1.1	-0.5	1.6	1.5
Greece	2.2	0.2	2.0	1.8
Ireland	2.3	1.2	1.1	0.8
Italy	1.5	0.3	1.2	0.7
Spain	1.5	0.9	0.6	0.4
UK	2.6	0.6	2.0	1.5

Source: OECD (2014)

Future Growth in the USA

- Mainstream projection says GDP growth at 1.8%, GDP/HW growth at 1.4% (CBO, 2016)
- Even **a famous 'pessimist' sees 1.2% labour productivity growth**; closer to a post-Golden-Age normal than secular stagnation (Gordon, 2016)
- ICT revolution not yet complete; could contribute 1.4 per cent per year to Y/HW growth (Byrne and Corrado, 2016)
- There will still be a moving frontier in the leader for European followers to catch up

Slowdown in Y/HW Growth since the ‘Special Century’ (Gordon, 2016)

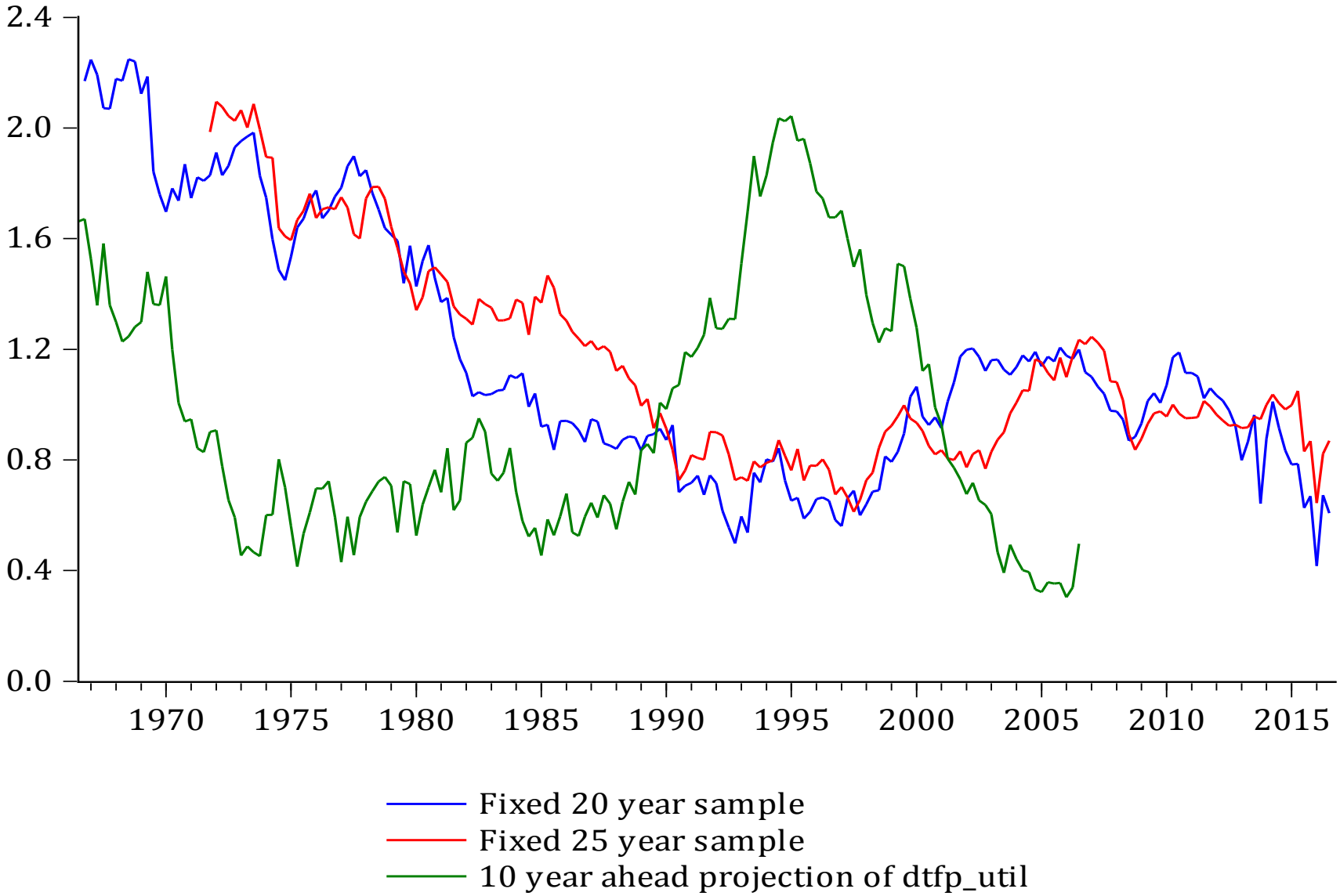
1920-1970: 2.8%

1970-2014: 1.6%

2015-2040: 1.2%

Long-Term TFP Growth in the Leader

- Is very hard to forecast
- Not obvious that the 'great inventions' are all in the past (cf. Gordon, 2016)
- Important positives include **robots** and the rise of **Chinese** research (16% world R & D in 2012)
- Key implication of ICT revolution is big rise in productivity of R & D activities (Mokyr, 2014)


2.4
2.0
1.6
1.2
0.8
0.4
0.0
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
Fixed 20 year sample
Fixed 25 year sample
10 year ahead projection of dtfp_util

Why Was Alvin Hansen (1939) Wrong?

- **Regime change** stimulated strong recovery post-1933
- Low investment not primarily due to demography or weak technological progress
- USA had **strong TFP growth** from the 1920s through the 1960s

Euro Area Today

- Still emerging from a very lengthy recession
- This may partly reflect reduction in post-crisis level of potential output rather than permanently lower trend growth
- No New Deal: the architecture of the Eurozone made **escaping from the doldrums quite difficult**

Escaping the Doldrums at the ZLB?

3 ways to address the problem

- Unconventional monetary stimulus
- Fiscal stimulus
- Supply-side policies that crowd in private sector spending (and improve productivity)

Unfortunately, Europe today has not been well placed to use these policies – regime change cannot be implemented

Why has the Euro Area found this So Difficult?

- Wrong sort of central bank
- Addressing the ‘doomloop and pre-occupation with fiscal sustainability
- Politics of supply-side reform

TFP Growth in the U. S. Private Domestic Economy, 1899-2007 (% per year)

1899-1909	0.93
1909-1919	0.64
1919-1929	1.63
1929-1941	1.87
1948-1960	2.00
1960-1973	2.23
1973-1989	0.48
1989-2000	0.98
2000-2007	1.45

Source: Bakker et al. (2015)

Why Was American TFP Growth Rapid in the 1930s?

- It is **not just the 'great inventions'** but broadly based TFP growth
- The United States had a superior 'national innovation system' pre-dating the Great Depression
- Education was a major American strength but so also was 'creative destruction'

TFP Growth in the Private Domestic Economy, 1929-41 (% per year)

TFP Growth	**1.87**
Great Inventions	**0.82**
Electricity	**0.16**
Internal Combustion Engine	**0.57 (0.08)**
Rearranging Molecules	**0.04**
Communications & Entertainment	**0.04**
Great Inventions without Distribution	**0.33**

Source: Bakker et al. (2015)

Long-Term Secular Stagnation in Europe?

- **Good News:** considerable scope for catch-up – including in ICT use - and no reason to think growth in leader will evaporate
- **Bad News:** European catch-up in GDP/Person ended in the early 1970s and in GDP/HW in the mid-1990s; pre-crisis productivity performance quite weak
- **Very Bad News:** the crisis may have adverse effects on future supply-side policy and skill-bias of technological progress may be severe

Supply-Side Reforms

- These are **mainly country-level policies** that could raise productivity, stimulate private-sector investment and speed up diffusion of new technologies
- Human capital and R & D, competition policy, regulation, and taxation matter for medium-term growth
- The **economics is easy** but the **politics is hard**
- OECD research says pace of reform slowed during crisis (Ollivaud et al., 2016) and 'murky protectionism' is worrying (Evenett, 2014)

Potential Impact on Real Y/P of 'Moving-to-OECD-Average' Supply-Side Policy Reforms (%)

	Labour Market	*Taxation*	*PMR*	*Education*	*Total*
France	4.5	10.9	2.2	2.1	21.2
Germany	6.1	9.9	0.0	0.0	16.0
Greece	6.0	10.1	22.0	5.8	43.9
Ireland	6.8	0.9	9.7	0.0	17.4
Italy	0.3	10.8	0.3	5.4	17.0
Portugal	7.3	0.7	8.5	21.8	39.6
Spain	3.5	4.6	0.0	6.3	15.8
UK	1.1	0.0	0.0	4.6	5.7

Source: Barnes et al. (2011)

Post-Crisis Supply-Side Policy

- Populism and euro-scepticism make the politics of supply-side reform even harder
- **'Left-behind voters'** are a force for protectionism not liberalization
- The traditional antidote is bigger government (Rodrik, 1998) but fiscal space is much more limited than post WW2

Social Transfers (%GDP)

	1960	*1980*	*2005*	*"2030"*
France	**13.4**	**20.8**	**30.1**	**35.8**
Germany	**18.1**	**23.0**	**27.3**	**30.1**
Italy	**13.1**	**18.0**	**24.9**	**30.4**
Spain		**15.5**	**21.1**	**30.3**
Sweden	**10.8**	**28.6**	**29.1**	**31.2**
UK	**10.2**	**16.6**	**20.5**	**26.2**

Note: "2030" adds to the 2013 figure increases through 2030 from health and long term care in the absence of cost containment (de la Maisonneuve and Oliveira Martins, 2013) and from pensions expenditure (OECD, 2013)
Sources: Lindert (2004), OECD (2014c)

Creative Destruction

- The ‘dark side’ of technological change – **entry of new plus exit of old** – feared by Luddites
- EU (especially Southern Europe) much worse than USA at shifting employment from less- to more-productive firms; may account for **substantial part of productivity gap** (Andrews and Cingano, 2014)
- Successful lobbying by losers potentially slows down or blocks diffusion of new technology (Uber, Walmart) at expense of productivity growth
- Barriers to entry and EPL hit innovative sectors hardest

Allocative Efficiency Scores

	Manufacturing	*Services*	*Business Sector*
France	**0.461**	**0.161**	**0.296**
Germany	**0.443**	**0.399**	**0.460**
Greece	**-0.056**	**-0.235**	**-0.240**
Italy	**0.141**	**-0.190**	**-0.039**
Sweden	**0.672**	**0.253**	**0.379**
UK	**0.300**	**0.065**	**0.156**
European Union	**0.272**	**0.036**	**0.140**
United States	**0.473**	**0.358**	**0.394**

Source: online appendix to Andrews and Cingano (2014)

Computerization of Jobs

- **47% American employment** has ≥ 0.7 chance of being computerized by 2035; robot prices will fall fast (Frey & Osborne, 2013)

- AI has the potential to raise average labour productivity by 30-35 per cent over the next 20 years (Frontier Economics, 2016)

- Substantial productivity growth … BUT **skill-bias** of technological change will be pronounced and much low-wage service employment will disappear

Task-Based Approach to Automation

(Arntz et al., 2016)

- Relatively few (9%) jobs are at very high risk of complete automation; most include tasks which are not susceptible
- However, over the next 20 years, many (35%-45%) jobs have a chance of substantial automation
- **Low-education and low-income workers are most vulnerable** to job losses

Skill-Bias and Unemployment

- **Europe** has been **much less good at coping** with skill-biased technological changes than USA
- Relatively high unemployment benefits and employment protection explain this (Mortensen & Pissarides, 1999)
- Well-designed labour market policies will be essential; ALMP plus reform of UB and EPL
- **NB:** more output but less labour intensive

Risk Factors for Skill-Biased Technological Change

	Low Educational Attainment (%)	Employment Protection (0-6)	Net Replacement Rate (%)
France	**28**	**2.38**	**68**
Germany	**13**	**2.87**	**83**
Italy	**43**	**2.51**	**78**
Spain	**46**	**2.05**	**74**
UK	**22**	**1.03**	**56**
USA	**11**	**0.26**	**51**

Source: Crafts (2015)

Conclusions

- Future growth prospects are not necessarily as bad as backward-looking econometrics suggests
- If the European future is long-term secular stagnation resulting from low productivity growth, this will reflect policy failure rather than the end of technological progress
- Dealing with the skill bias of technological change is likely to be a serious challenge
- A return to pre-1995 productivity growth is unlikely but not impossible