It's the growth rate of productivity, stupid!

Mainz, March 1st, 2024 | *Dieter Wermuth*

Poor economic growth is presently one of Germany's main topics in public policy discussions. Since the average income is actually rather high, an acceleration of growth must not necessarily be a top priority, at least at first glance. Stagnating output would obviously be good for the environment. But if the rest of the world continues to race ahead in terms of economic performance, a shrinking share in global GDP inevitably means less influence in global issues, including the military.

A stagnating GDP also means that fights over income distribution will intensify: if one group of the population gains a bigger slice of the pie, another one will get less and feel they are treated unfairly. If, on the other hand, the economy grows by, say, 2%, one group could raise its income by 3% and the other one by 1%, a much more pleasant outcome (of course, higher inflation could also achieve this). In other words, since we do not have a world government and peace, each country will try to expand its economy.

So it is quite shocking to German policy makers that real GDP has increased only by 0.1% over the 4-year period from Q4 '19 to Q4 '23, compared to 8.2% in the US and about 6% in neighboring countries such as the Netherlands, Sweden and Switzerland. Incidentally, the world economy as a whole grew by roughly 12% during that time. In relative terms, Germany is shrinking. To be sure, this is not a catastrophe, and better times are probably lying ahead.

The overall economic situation is still good: unemployment is at a record low of 3.1% (ILO), employment growth remains in the order of 0.5% per year, annual working hours are lower than anywhere else, real interest rates are close to zero (not least because of small government budget deficits and debt), and the international competitiveness remains very strong, given an almost structural surplus in the balance on current account of 5% of GDP. Germany is globally the largest exporter of capital and, among OECD countries, probably the largest importer of labor, recently on par with the much bigger US.

The main problem is productivity which, multiplied by labor input, determines the size and change of real GDP. Since employment has expanded by 1.4% over the four-year period while productivity (on a per hour basis) has been up 1.4%, but annual working hours were down 1.3%, so the change of real GDP was near zero. The slow growth of the German economy was thus due to slow productivity growth and the reduction of average working hours.

In any case, to get the economy going again productivity growth must speed up. That's easier said than done. It is a long-established "law" of economics that the marginal rate of output growth declines as the capital stock gets bigger and bigger, a result of positive net investments, and it is therefore no surprise that German productivity growth is much slower than twenty or fifty years ago. But this slowdown in productivity growth is not a given – the US shows us that in spite of its large capital endowment average annual labor productivity grew by no less than 1.3% over the past four years.

determinants of economic growth in seven countries

	US	Japan	Germany	France	Nether-lands	Sweden	Switzer-land
				Q4 2023 *% change between Q4 2019 and Q4 2023*			
real GDP	+8.2	+2.8	+0.1	+1.8	+6.0	+5.7	+6.1
employment	+1.7	-0.3	+1.4	+6.3	+7.0	+3.7	+4.4
labor productivity 1)	+5.4 2)	+2.9 2)	+1.4	-3.7	+3.0	+3.6	+3.8 2)
real investment 3)	+7.9	-1.1	-4.8	+4.6	+0.1	-*)	-*)
				investment ratio 4) in 2023			
%	21.1	25.6	21.9	24.9	20.5	26.7**)	26.2**)
				hours worked in 2023, per person employed			
hours	1,750	1,650	1,340	1,510	1,400	1,590	1,530
				patent applications in 2022			
per million inhabitants	757	1,749	736	358	489	652	1,168
				government debt 5) in 2023			
% of nom. GDP	122.5	251.7	65.1	112.0	47.0	30.6	39.5
pp change since 2019	+14.7	+15.3	+5.5	+14.6	-1.6	-5.0	-0.2
				average fiscal balance (2019 - 2023)			
% of nom. GDP	-9.0	-6.4	-2.2	-5.6	-0.9	-0.3	0.0
				CO_2 emissions 6) per capita in 2022			
tons of CO_2	14.3	8.6	7.6	4.2	9.6	3.9	3.8
% change 2022 vs. 2019	-4.3	-3.5	-6.9	-10.1	-13.7	-15.7	-15.3
				nominal GDP per inhabitant in 2023			
euro	75,470	31,260	48,750	40,760	57,770	51,030**)	91,290**)

*) no data for Q4 2023 yet – **) own estimate – 1) real GDP per hour worked – 2) % change 2023 vs. 2019 – 3) real gross fixed capital formation – 4) nominal gross fixed capital expenditures as % of nominal GDP – 5) estimates by EU Commission, IMF and our own – 6) in energy production

sources: Eurostat, AMECO, IMF, Energy Institute, BLS; WIPO, Statistics Bureau of Japan, own calculations ©UR

So what can be done? The simple but rather abstract answer is to improve the quality and qualification of "human capital". Germans are less innovative than they used to be, the results of the PISA studies show that things will not get better in the near term. "Education, education, education" is what is needed, with an emphasis on the early childhood and then throughout the whole working life. It requires a change in the composition of public sector spending because investments in people yield higher returns to society than almost any other kind of expenditure. Another advice is to promote spending on research and development by business and academia. It is here where the US is leading the way and probably the main reason why its productivity and overall growth are so strong.

Germany is in the middle of a profound economic transformation, away from fossil fuels and toward renewables. Nuclear and coal are phased out rapidly which in turn creates stranded assets, ie, large write-downs of power plants and other hardware based on the burning of coal, oil and gas. Like in a war, large parts of the old capital stock have been, and will be destroyed. One important effect of the transition is the strong increase of energy prices – these are needed as incentives for the reduction of energy demand (positive environmental effects!) and large investments in wind and solar installations. Almost nowhere else are energy prices as high as in Germany. They will come down in the medium term – because the marginal costs of producing alternative energy are close to zero – but right now they are a blow to the purchasing power of households and business, and thus a main cause for the four-year stagnation of the economy.

To keep government spending under tight control has not really contributed to growth. It depends on what the money is used for. Germany has a so-called debt brake in its constitution which forces the state to keep its budget to 0.35% of GDP in normal times, without distinguishing between consumption (social spending, the military) and capital expenditures (hardware, education). A reform of the debt brake is urgently needed.

It should be possible to borrow money for infrastructure and education if the economic benefits are larger than the rate of interest. Given that the real long-term interest rate on new government debt is close to zero while the benefits in terms of stronger growth of productivity and general welfare are considerably higher, borrowing for these purposes is actually a no-brainer. Even fiscal hawks are now coming around to this view. There is light at the end of the tunnel.

# # #