

# »» Can an expansive fiscal policy deliver an economic miracle in the USA?

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US economic growth cooled down significantly after the global financial and economic crisis. The current US administration is therefore planning to stimulate the economy through fiscal policy. Investments, particularly in infrastructure, are definitely necessary but should be approached with caution in the current business cycle. This is because the US economy is in an advanced upswing phase in which additional stimulus measures may cause the economy to overheat, raising the risk of higher inflation. The focus should therefore be on structural measures, because that is the only path to a long-term solution of the underlying problem: slowing potential growth.

The current US administration under Donald Trump has set itself the goal of creating a US economic miracle of sorts. On the one hand, measures under consideration include import tariffs and a border adjustment tax to offset the purported negative impacts of globalised trade for industry and the workforce. On the other hand, the plan is to stimulate economic activity by lowering corporate and income tax rates to ease the burden on businesses and households in order to generate more demand. It also comprises a comprehensive infrastructure programme that is indeed urgently necessary. The American Society of Civil Engineers estimates the infrastructure investment gap at USD 1.44 trillion for the period from 2016 to 2025. The question is, however, whether an expansive fiscal policy in the form of tax relief and economic stimulus programmes can deliver the desired outcome in the current business cycle.

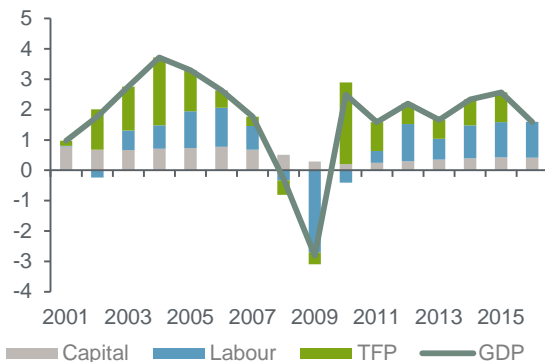
## Economic growth has not yet returned to pre-crisis levels

The first step in answering this question is to take a look at the current US business cycle. Since the end of the global financial and economic crisis in 2010, average economic growth has hovered around 2%, well below the average of the period between 2001 and 2007, when it was around 2.4%. The years 2016 and 2011 delivered growth of 1.6%, the lowest rate since the crisis, especially compared with the strong growth of 2.6% in 2015.

A breakdown of economic growth into the growth contributions of capital, labour and total factor productivity (TFP) reveals the reason for the low average growth since 2010: the contribution of capital to growth has dropped significantly (Figure 1). While it still averaged 0.72 percentage points in the pre-crisis period between 2001 and 2007, it was down

**Figure 1: GDP growth broken down by weighted production factors**

In per cent on the previous year (line) and percentage points (bar)



Note: TFP=total factor productivity

Sources: US Bureau of Economic Analysis, US Bureau of Labor Statistics, Bloomberg, own calculations

to just 0.33 percentage points on average between 2010 and 2016. The contribution of labour to growth, on the other hand, grew by a mere 0.12 percentage points between the two periods while the contribution of TFP fell by 0.09 percentage points. Thus, despite the currently strong labour market, the higher contribution of labour cannot offset the decline in the contribution of capital. This is even less achievable as the production elasticity of labour, which can be approximated through the wage share, also decreased continuously from 71.9% in 2000 to 68.9% in 2016. In other words, the importance of labour as an input factor in overall economic production has fallen.

## Phase of business cycle determines impact of public stimulus measures

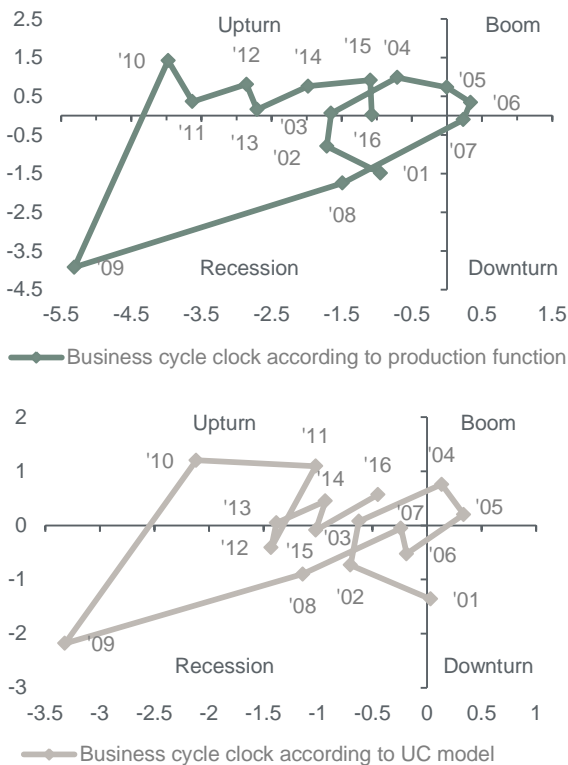
One would be tempted to assume that an expansive fiscal and tax policy can deliver the necessary impetus and thereby stimulate economic growth. This assumption is correct in theory, because both measures create additional demand: tax cuts do it by easing pressure on the budgets of businesses and households, and the infrastructure programme achieves it by stimulating demand directly.<sup>1</sup>

However, whether these measures have a positive impact on the business cycle crucially depends on the phase of the business cycle a country is in. As production capacities cannot be immediately adjusted, such additional demand can be met only if the economy is not running at full capacity.

With average capacity utilisation of 75.4% in 2016, industry does in fact still have scope for expansion – long-term monitoring of this indicator suggests that full capacity utilisation is reached at around 80%. With an unemployment rate of 4.8% in 2016 and currently 4.5% in March 2017, however, the US labour market is running at near full and, in some cases, above capacity. The measure for this is the natural unemployment rate, which the US Federal Reserve estimates at 4.7% and the OECD even at 4.9% for 2016. When economic stimulus leads to capacity over-utilisation, an economy can no longer fully meet demand for goods so that price rises have to be expected.<sup>2</sup> So instead of stimulating economic activity, measures may simply result in rising inflation rates. Alternatively they would raise the current account deficit, which the new administration actually wants to lower.

**Figure 2: US business cycle clock**

X Axis: Output gap in per cent of potential output  
 Y Axis: GDP growth minus potential growth in per cent on previous year



Note: UC model=unobserved components model

Sources: US Bureau of Economic Analysis, own calculations

**The US business cycle is on an upswing**

Against this backdrop, it is useful to compare actual US output with potential output in order to be able to identify the state of the business cycle (see box for definition of potential output). The US business cycle clock (Figure 2) shows that the US economy has been in an upswing phase since 2010. Here the output gap, which is defined as percentage deviation of GDP from potential GDP, is still negative but closing steadily. In accordance with the two estimation methods used (for details on estimation technique see box), the output gap was just -1.1 and -0.5%, respectively, in 2016 as opposed to

-5.3 and -3.3% in the crisis year 2009. This is made possible by a GDP growth rate that is higher than the potential growth rate (Figure 3). Although GDP after the Great Depression has grown at a slower rate than before, potential growth has fallen to even lower levels. In the period between 2010 and 2016 it averaged 1.4 and 1.7%, and last year it was 1.6 and 1.0%, respectively. That means potential growth is currently 0.9 or 1.6 percentage points, respectively, below the average across the years 2001 to 2007, when it was around 2½%.

**Quality over quantity**

Despite a reduction in both GDP growth and potential growth, the US economy is therefore heading straight for a boom – a phase in which not just actual growth exceeds potential growth but in which actual output is higher than (inflation-neutral) potential output. Such a positive output gap, however, ultimately means over-utilisation of production factors and, thus, rising prices, or a deteriorating current account balance, which means that an expansive fiscal policy currently harbours real risks and needs to be planned and implemented with caution. The still negative output gap does not yet point to any acute inflation danger. But projects that stimulate demand in the short term can quickly cause the economy to overheat. Not only could this ignite a conflict with the Federal Reserve, which would be forced to introduce further interest rate increases to counteract rising inflation and thereby dampen the fiscal growth impetus (which would increase the current account deficit once again in the medium and long term). It would simply do nothing to solve the underlying problem of languishing economic growth: the low potential growth rate.

Whether this problem can be resolved at all through higher public expenditure is unclear.<sup>3</sup> That makes it all the more important to direct public investments specifically into areas that help the structure of the US economy in the long term and can durably strengthen its weak potential growth. That involves, for example, investing in education and promoting research and development, which directly influence total factor productivity and, thus, potential growth by raising human capital formation and advancing technological progress. Spending on information and communications technology and, as planned by the US administration, infrastructure could also increase factor productivity through positive externalities. Tax cuts aimed at bolstering growth, which may be desirable for other reasons but whose effects are difficult to control, should therefore be placed on the backburner – particularly as the business cycle is in an upswing phase.

**Conclusion**

It is questionable whether an expansive fiscal policy will bring about a new economic miracle in the USA, mainly because of its possible impact on price trends and the current account balance in the current business cycle. What is certain is that it can nevertheless contribute to higher growth potential if it is well-planned. But the US administration will have to patiently wait for the structural impact of such fiscal policy to occur. ■

**Definition and estimate of potential output**

Potential output describes the maximum output that can be achieved by an economy at a given moment when all production factors are being utilised at full capacity without impacting on the inflationary trend.

It can be determined with a number of methods that range from simple filtering techniques to more complex econometric models. The drawback of pure filtering methods is that they do not take into account the inflationary trend and therefore cannot determine potential output as defined. That is the reason two different approaches were taken in this study: one approach on the basis of a production function and one on the basis of an unobserved components model.

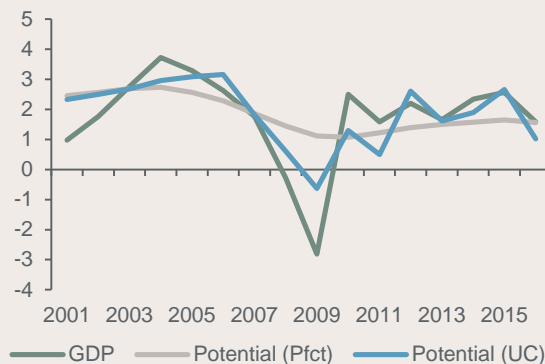
In addition to its lower degree of complexity, the production function approach offers the advantage of examining the correlations on the production side between gross domestic product and factor inputs. The price trend can then be accounted for using the natural unemployment rate. One weakness is that when adjusting input trends it resorts to statistical filters which lead to inaccuracies at the endpoints of the observation period.

Contrasting with this, the endpoint problem in the unobserved components model can be prevented through an estimate with the aid of a Kalman filter. The results obtained here, however, depend on the precise model specification, that is, how the development of the potential or the cycle is defined and what control equations are used – in the current model an inflation equation that contains the output gap as an explanatory variable.

An analysis of the GDP growth rates and potential output obtained from the two estimates shows that they differ primarily in regard to smoothness (Figure 3). This is a key problem in estimating potential because each method makes an assumption regarding the relation between cycle and trend, whether it be through the choice of a smoothing parameter in connection with filters, e.g. in the production function approach (an HP filter was used here), or through the model specification and the choice of start values for the Kalman filter.

In accordance with the two explained approaches, potential growth in the USA currently ranges between 1 and 1½ %.

**Figure 3: Growth rates of gross domestic product and potential output**



In per cent on the previous year

Note: Pfct=potential determined using the production function, UC=potential determined using the unobserved components model

Sources: US Bureau of Economic Analysis, own calculations

<sup>1</sup> The positive effect of tax cuts on demand, however, is not certain. Businesses and households could also retain funds not paid in taxes.

<sup>2</sup> Along with rising prices, excess demand can lead to higher imports. Thus, two key targets of the US administration – stimulating domestic activity and reducing imports – would clearly be in conflict with each other.

<sup>3</sup> Cf. Hauptmeier, S. et al. (2009), Projecting Potential Output, ZEW Economic Studies, Vol. 42, Heidelberg.