# Should government investment be promoted?

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### Introduction

In Belgium, government investment relative to GDP has halved since the early 1970s and the country now ranks among the group of European nations whose governments invest the least, while current public spending remains comparatively high. Other euro area countries, too, are looking at low levels of government investment, some because of significant restructuring in the aftermath of the financial crisis. Such investment feeds into the long-term growth potential of an economy and therefore needs extra nurturing and encouragement, without prejudice, of course, to necessary consolidation of public finances and ensuring their sustainability.

This article breaks down into three sections. The first analyses components of public investment, tracing its development and comparing the situation in Belgium with that elsewhere in Europe. The second section discusses the macroeconomic impact of government investment and highlights numerous reasons why it should be promoted. The third section reviews the various arenas that would stand to gain from higher public investment – desirable in the current climate – and ends by making a number of conclusions.

# 1. Breakdown and development of government investment

#### 1.1 Government investment in Belgium

#### 1.1.1 Definition

Government or public investment is defined as gross fixed capital formation by the government: the balance of purchases and sales of fixed capital by the federal government, social security, the Communities and Regions, and local authorities. Fixed capital can encompass buildings, construction, transport equipment, information or telecoms infrastructure, weapons systems, R&D spending, etc. In 2015, general government investment in Belgium worked out at  $\in$  9.4 billion, or 2.3 % of GDP.

A broader definition of government investment might also include investment subsidies granted by the government to a plethora of entities in the non-profit sector that serve the public interest (hospitals, nursing homes, etc.). Although not part of the general government sector in the narrow sense as defined in the national accounts, these entities typically receive public sector money to fund their capital spending. A broad definition allows for a wider gauge of government spending, not just in its strictest but also in a broader sense. The latter definition puts government spending at a total of  $\in$  13.8 billion in 2015, or 3.4% of GDP. That said, the rest of this article uses the narrow definition of

#### CHART 1 GOVERNMENT INVESTMENT IN BELGIUM (government investment by sub-sector<sup>(1)</sup>, in % of GDP)



Sources: NAI, NBB.

(1) The national accounts did not consider the Communities and Regions a full-fledged sub-sector until 1989. All data predating 1995 – for which the National Accounts Institute does not provide statistics in keeping with the ESA 2010 methodology – have been retropolated to reflect the growth percentages in the national accounts according to ESA 1995.

government investment, i.e. gross fixed capital formation by the government.

#### 1.1.2 Breakdown

In 2015, the Communities and Regions accounted for over half of government investment in Belgium. Local authorities invested around one-third of the government capital spend, albeit that their share fluctuates in keeping with a six-year electoral cycle typical of their mandate. Federal government, which includes social security, invests very little indeed and accounts for only one-tenth of the total Belgian government investment bill.

Around 40% of government investment is earmarked for public administration in its broadest sense, while the remainder depends on the mandate of the various government policy levels. Investment in education, which accounts for nearly one-third of investment spending, is carried out at the level of the Communities and Regions and, to a lesser degree, at the local authority level. The same is true for transport infrastructure, which absorbs a total of nearly one-fifth of capital spending by the Belgian government. Investment in public transport, one-twentieth of the total, is made exclusively at the regional level, as the Belgian national rail company, the SNCB, is not part of the public sector according to the national accounts definition. Lastly, defence takes 3 % of the investment spend and is the exclusive domain of the federal government.

Government investment comes in many different shapes, e.g. buildings (purchased or built), construction (particularly road construction or civil engineering), equipment, intangible assets. The appropriation of investment largely determines the forms it takes: the bulk of the money invested in public administration and education targets purchases and construction of buildings. Meanwhile, transport infrastructure encompasses not merely spending on roads (including tunnels and bridges) but also civil engineering projects (ports, canals, dikes, locks, etc.) and other construction works (underground network, drainage, etc.). Investment in equipment largely ends up in public transport and defence, while intangible assets include R&D investment and chiefly pertain to education. Note that capital spending on construction works has shrunk in the past decade, while other types of investment have held up much better.







Sources: NAI, NBB.

(1) The size of each circle reflects the share in total government investment.

#### TABLE 1

GOVERNMENT INVESTMENT: BREAKDOWN BY CATEGORY

(in € million, 2015)

	1995	2000	2005	2010	2015
Buildings	800	1 031	1 466	1 960	2 888
Purchases	44	67	-1	4	105
Construction	755	965	1466	1957	2782
Construction works	2 034	2 655	1 828	1 978	1 960
Road building	738	962	956	967	1096
Civil engineering	440	337	374	479	402
Other	857	1 357	498	533	462
Other investment	1 629	2 204	3 058	4 202	4 399
Equipment	658	981	1 409	1 842	1 808
Intangible assets	971	1 223	1 650	2 360	2 591
Sub-total (excluding defence)	4 463	5 890	6 351	8 140	9 247
p.m. Investment in defence	393	381	274	258	169
Total	4 857	6 271	6 626	8 398	9 416

Sources: NAI, NBB.

#### 1.1.3 Development

Government investment and total primary expenditure have been diverging since 1970, with the first recording growth below that of GDP and the other having risen faster than economic activity. In fact, government



Sources: NAI, NBB.

investment growth has only slightly exceeded inflation levels recorded in the period.

As a result, government investment relative to GDP has halved between 1970 and 2015 and today only accounts for 2.3 % of GDP, compared with a peak of 5.5 % in the early 1970s. The slowdown started with the 1980s fiscal consolidation effort, as capital spending is easily scrapped or shelved at times of austerity whereas measures needed to manage current expenditure are unpopular. However, by the end of the 1980s, capital spending had stabilised and since then it has ranged between 2 % and 2.5 % of GDP.

The relationship between government investment and total primary expenditure shows an even more striking trend, as funds earmarked for investment have been cut by nearly two-thirds since the 1970s. Currently, government investment spending accounts for less than 5 % of total primary expenditure.

Of course, this drop in gross investment has also affected net investment. Net fixed capital formation (or net investment) is defined as the difference between gross fixed capital formation (i.e. gross investment) and the consumption of fixed capital (depreciation of fixed assets due to normal wear and tear). Since the late 1980s, new investment has hardly kept up with the depreciation of fixed assets from previous investment. As a result, net







Source : EC.

investment has been negligible and in some years even turned negative.

### 1.2 International comparison

Across Europe, the financial crisis caused many embattled countries to slash their government investment budgets, e.g. Ireland, Portugal and the Mediterranean countries. Greece excepted, these countries and Belgium are now at the bottom of the league table in terms of government investment. Germany is also in this group: much like Belgium's, its subdued pre-crisis government investment levels have hardly budged since. By contrast, Scandinavian governments are investing at twice these levels, i.e. close to 4 % of GDP. In France and the Netherlands too, public investment is considerably higher than in Belgium.

The comparison becomes even more stark when total public spending is factored in. Europe-wide, a measure of correlation emerges between the level of government investment and total primary expenditure, while Belgium stands out for a combination of weak investment and high spending. Among its fellow countries with primary expenditure at over 50% of GDP, Belgium has the lowest government investment relative to GDP. In fact, six other Western European countries manage to invest more than Belgium, while typically spending less overall. The governments of the other countries are looking at low capital spending ratios, but also at significantly lower primary expenditure than in Belgium.



Source : EC.



CHART 6 NET STOCK OF PUBLIC SECTOR FIXED ASSETS, REFLECTING THE QUALITY OF INFRASTRUCTURE, IS RELATIVELY SMALL IN BELGIUM

Sources: EC, World Economic Forum.

(1) Respondents rate the quality of infrastructure (e.g. transport, telephony, energy) on a scale of 1 (highly underdeveloped/among the worst in the world) to 7 (extensive and efficient/among the best in the world).

Considered in its broadest sense, Belgium's government investment more closely reflects the European average, which is to say that the sum of direct investment and government-funded investment subsidies is more in line with the situation elsewhere in Europe.

A cumulation of net investment over time results in the stock of public capital - i.e. the net stock of fixed assets. In relation to GDP, this capital stock has recorded a virtually uninterrupted decline in Belgium since 1995. Up until 2005, Germany saw similar trends but its stock of public capital has since stabilised. By contrast, the Netherlands is now back at its 1995 levels while France has managed to increase its stock of public capital in the same period. A country's stock of fixed assets is reflected in the quality of its infrastructure and the World Economic Forum conducts a survey to rate countries in a league table that mirrors their stock of public capital pretty accurately. Belgium finds itself below its main neighbouring countries and not just for its infrastructure in general but more specifically for its road and rail network and its airport infrastructure. Only its port infrastructure is rated as ahead of its peers, coming in below the Netherlands but above Germany and France.

Belgium's underperformance compared with its neighbouring countries suggests that it is not merely possible but also appropriate to promote government investment in Belgium. Section 2 sets out the reasons justifying a boost to capital spending.

# 2. Macroeconomic impact of government investment

Government investment typically has a positive effect on economic activity and an economy's productive potential, as demonstrated by the output elasticity of the government's capital stock, i.e. the sum of all past government investments and their depreciation. Numerous empirical studies have tried to quantify output elasticity for a range of countries and periods. Bom and Ligthart (2015) have compiled an interesting survey of these studies that highlights the wide distribution of their outcomes. A metaanalysis helps to mostly explain away this variability, and they find that the output elasticity of the government's capital stock averages around 0.08 in the short term and around 0.12 in the long term. This implies that a 1% increase in the stock of public capital boosts long-term GDP by 0.12%.

Government investment makes itself felt through a range of transmission channels, which may be very different depending on the period under review and the nature of the investment. This section will first review these transmission channels and then establish what the impact is of an increase in public investment, using investment multipliers that capture the extent to which boosting such investment influences economic activity. The actual strength of these multipliers relates to various factors also discussed in the section.

# 2.1 Investment stimulus: a review of transmission channels

In the short term, any increase in government investment will typically boost demand in the economy and exert an immediate upward impact on GDP. After all, such investment classifies as public spending and features under the spending aspect of GDP. Its impact is generated by way of production and so adds value and is a source of income generation.

Over the long term, government investment feeds into the supply side of the economy as it helps raise general economic productivity. And it is precisely this positive externality that makes government investment such a strong policy instrument for facilitating long-term, sustainable economic growth. The precise impact of government investment in the longer term will of course depend to a large extent on the nature of the investment, e.g. investment in R&D, education and infrastructure will chiefly benefit an economy's production capacity. Spending on R&D, for instance, involves both direct stimulus - through the impact on productivity and innovation within a country - and an indirect effect insofar as it enables a country to better absorb technology available elsewhere in the world. This absorption capacity also benefits from general educational attainment levels in an economy, to which investment in education is a major contributor. Lastly, investment in infrastructure has a key role to play, as it is a major input in the production process and supports the productivity of private production factors labour and capital. An economy's production capacity will be enhanced and agglomeration effects achieved through investment in transport networks, as these efficiently connect manufacturers and consumers; in utilities, as it facilitates energy provision and enhances energy independence; and in communication networks, as this facilitates sharing and spreading of information and knowledge. After all, corporations are more likely to set up operations in areas benefiting from such infrastructure investment, and economic activity will concentrate in areas such as ports and business parks and so generate significant benefits of scale. What is more, focused investment in infrastructure also encourages private investment and reinforces the long-term impact of government investment.

# 2.2 Short-term and long-term investment multipliers

Numerous econometric models and empirical studies confirm that investment multipliers are positive, both in the short term and in the rather longer term, but their exact impact depends on a range of factors, such as the period under review, the nature of the investment, the method of funding and the monetary policy response.

To demonstrate the importance of factors determining the size of the multipliers, we present the outcomes of the ESCB simulations based on the EAGLE model<sup>(1)</sup>, calibrated for four countries and/or groups of countries, i.e. for Germany, for the United States, for the rest of the euro area and for the rest of the world. The model helped establish the effects of a temporary increase in government investment of 1% of initial GDP and for a period of five years, before gradually returning to its original level as a percentage of GDP. The model assumes an investment stimulus in Germany, but its impact on GDP and on the debt ratio is equally representative of other large euro area countries.

(1) The Euro Area and Global Economy model (EAGLE model), a basic version of which was discussed in Gomes et al. (2010), is a micro-founded strong theoretical model for the analysis of spillovers and interdependencies of policy measures.





(relative to situation without investment stimulus<sup>(1)</sup>)

INVESTMENT MULTIPLIERS VARY ACCORDING TO FUNDING METHOD

Source: ESCB (simulations using the EAGLE model).

CHART 7

(1) An increase in government investment of 1 % of GDP over five years.

The normal situation will see additional government investment funded by an expansion of government debt, and assumes that governments are able to borrow at risk-free rates. This article ignores the impact of any steep risk premiums due to rising government debt and of possibly limited access to financial markets for countries with little or no budgetary scope. It also assumes that markets will anticipate the ECB monetary policy response across the board, as well as an absence of any restrictive measures in the first two years after the investment stimulus. This normal situation should see an upward effect on GDP triggered by higher government investment as early as in the first two years after the investment stimulus. Long-term, GDP should advance further by nearly 2 % compared with a situation without investment stimulus. Although investment is funded by higher government debt, the debt ratio stands to contract in the short term on the back of favourable GDP trends, while higher GDP will also curb the long-term rise of the debt ratio.

The size of investment multipliers hinges crucially on how additional government investment is paid. If funded by higher personal income tax or consumption levies, its upward short-term effect on GDP will typically be slightly lower than that of an investment stimulus programme driven by higher government debt. The short-term impact is virtually wiped out if the government pays for investment by cutting consumption, as this almost neutralises the positive demand effect of higher capital spending. Long-term, financing methods appear to be much less important for the GDP impact and investment multipliers are almost the same for the various funding methods. By contrast, debt ratio developments are deeply affected by the choice of funding: if the investment stimulus does not involve more debt creation but is budget neutral, the debt ratio will contract sharply both in the short and in the longer term.

Meanwhile, the monetary policy response also matters for the macroeconomic consequences of any investment stimulus. As discussed above, the normal situation sees the ECB opt for accommodating policies of which the economic agents take full advantage. However, if such policies are only implemented *ex-post* and cannot therefore be anticipated in full, or if the ECB switches to restrictive policies, positive demand effects would be much more subdued in the short term and involve smaller multipliers. In these two cases, debt ratio developments would also be a lot less favourable.

Multiplier size will also reflect the degree to which a specific investment by the government boosts the economy's productive capacity. The normal situation assumes that all government investment is productive and enhances the productive stock of public capital. If government investment is less efficient because, say,



Source: ESCB (simulations using the EAGLE model).

(1) An increase in government investment of 1 % of GDP over five years.

only half of new spending actually boosts the productive stock of public capital, its short-term and long-term impact on GDP will be much smaller and its debt ratio will develop much less favourably. In the extreme event of no government investment turning out to be productive and output elasticity of government capital being reduced to nil, the long-term impact on GDP will be lost completely and the debt ratio will shoot up.

Bom and Ligthart (2015) have demonstrated, among other things, that the average output elasticity of government capital goods is relatively high for regional and local authorities, which might suggest that these authorities tend to focus on investment commanding the biggest multipliers: spending on so-called core infrastructure – roads, port infrastructure, rail and airports – would appear to have a bigger upward impact on production potential than other government investment, such as on buildings<sup>(1)</sup>.

The benefits of government investment are of course also greater when processes informing investment spending are more efficient and ensure that the best projects are delivered at the lowest possible cost. The IMF's Public Investment Management Assessment (PIMA, 2015) serves as a useful tool to shift processes to optimum decision-making, focusing on planning (including effective coordination between the various policy levels), on allocating investment to the right sectors and projects (based on transparent criteria and a long-term view) and own implementing selected projects on time and on budget.

Lastly, an investment boost in one euro area country also has positive spillover effects on the GDP of the other countries in the euro area, as this stimulus boosts domestic demand and increases prices relative to those in other countries, and encourages more exports in the rest of the euro area. The extent of the spillover effect depends on the country giving the investment boost, the monetary policy response and the method of funding. Chart 10 captures the impact of an investment stimulus in Germany on the GDP of other euro area countries. Positive spillover effects are mainly short-term, sharply decline in the case of *ex-post* accommodating monetary policy and virtually disappear if the ECB adopts restrictive policies to curb inflation caused by rising demand.

The effects we have identified in these simulations are confirmed by a range of empirical analyses, including recent work by Abiad *et al.* (2015). Putting the average short- and medium-term macroeconomic impact of an unanticipated increase in government

(1) Most studies ignore military installations and equipment.

CHART 9 MORE EFFICIENT GOVERNMENT INVESTMENT, HIGHER MULTIPLIERS<sup>(1)</sup> (relative to situation without investment stimulus<sup>(2)</sup>)





Source: ESCB (simulations using the EAGLE model).

(1) The normal situation puts output elasticity of the stock of public capital at 0.10, which is in keeping with the findings of Bom and Ligthart (2015).(2) An increase in government investment of 1 % of GDP over five years.





Source: ESCB (simulations using the EAGLE model).

(1) An increase in government investment of 1 % of GDP over five years.

CHART 11 IMPACT ON GDP OF AN UNEXPECTED INCREASE IN GOVERNMENT INVESTMENT OF ONE PERCENTAGE POINT OF GDP<sup>(1)</sup> (in %)



Source: Abiad *et al.* (2015). (1) The space between the dotted lines captures the 90% confidence interval. investment at one percentage point of GDP over one year, these authors have reviewed OECD countries in the 1985-2013 period and calculated actual government investment in any one year compared with analyst predictions in October of the same year. This prediction error serves as a proxy for the unexpected trend in government investment and helps to pinpoint the impact on GDP of a change in investment. Their findings also corroborate the importance of funding methods: four years on from an unexpected investment stimulus of one percentage point of GDP, real output is found to be some 3% higher if funded by debt creation, with the impact reduced to 0.5 % if additional investment is offset and does not impact the government's budget balance. On the whole, their findings support the conclusion that government investment benefits an economy's production capacity.

# 3. How to promote government investment?

Section 1 found that government investment in Belgium is currently relatively low, as it is in many other European countries. The authorities would be well advised to raise it, as weak government investment gets in the way of sustainable economic recovery and actually hampers the economy's future potential.

In fact, promoting investment was a key strand of the strategy set out by the European Commission when Jean-Claude Juncker took over in November 2014 and proposed reviving the European economy and creating jobs without taking on any new debt. Mobilising investment, a renewed commitment to implement structural reforms and the need to continue to aim for fiscal responsibility inform the European Union's new, integrated economic policy approach. Simultaneous, coordinated action in these three domains is believed to be crucial for restoring confidence, for eliminating the uncertainty hampering investment and for maximising the mutually reinforcing effects of the three strands. As part of the new, integrated approach, in January 2015 the Commission released guidance on a flexible application of the rules of the Stability and Growth Pact to strengthen the link between structural reforms, investment and budgetary responsibility. This guidance and their Investment Plan for Europe are among the key initiatives promoting investment by the Juncker-led European Commission.

This section describes recent European initiatives aiming to boost investment and suggests a few alternatives for encouraging government investment.

# 3.1 Recent initiatives to promote government investment

#### 3.1.1 Investment Plan for Europe

The Investment Plan for Europe, also known as the Juncker Plan, was launched by the Commission in November 2014 and became operational in mid-2015. Its primary aim is to encourage investment across Europe, and particularly investment that crucially supports the economy's production potential – i.e. all investment and not just public investment.

The plan's implementation and outcomes to date are discussed at length in the article by Butzen *et al.* (2016) in this edition of the Economic Review.

# 3.1.2 Stability and Growth Pact: flexible on investment

In January 2015, the Commission set out how it would use maximum flexibility in the Stability and Growth Pact rules to pursue growth-friendly fiscal policies. To this end, it will factor in economic conditions in Member States when imposing efforts under the preventive arm, encourage effective implementation of structural reforms and promote investment.

Member States are given scope to promote investment by temporarily deviating from their medium-term objectives under the preventive arm of the Stability and Growth Pact or from their budgetary adjustment paths to this objective<sup>(1)</sup>. However, Member States can only invoke the clause under very strict conditions, e.g. when they are facing negative GDP growth in volume terms or if their GDP lags way behind potential and causes a negative output gap in excess of 1.5% of GDP. National investment spending only qualifies if the relevant projects are co-financed by the EU as part of its structural and cohesion policies, trans-European networks and the Connecting Europe Facility, or if they are co-financed by the European Fund for Strategic Investments (EFSI). Any such financial back-up is required to lead to a real increase in investment levels, while temporary deviations may not cause a Member State to exceed the 3% fiscal deficit target and a safety margin should be observed. What is more, the Member State is required to make up for the deviation within the timescale of its stability or convergence programme, i.e. within four years of invoking the investment clause. The Commission will ensure compliance with the latter criterion by demanding that the gap between a country's structural balance and its medium-term objective may not exceed 1.5 percentage

(1) Section 3.2.2 has more on the Stability and Growth Pact.



(data for 2016, as a % of potential GDP, unless otherwise stated)



(1) In percentage points of GDP.

points of GDP. This condition may be considered very strict indeed, as only a few countries meet it: five euro area Member States in 2015, to be precise, while only Greece and Finland were still eligible in 2016.

The Commission will also encourage investment by adopting flexibility on national financial contributions to the EFSI. It will ignore these contributions when determining budgetary efforts achieved under the preventive or corrective arms of the Stability and Growth Pact, as these are considered exceptional, one-time measures that do not affect underlying budgetary positions. What is more, the Commission will refrain from initiating excessive deficit procedures if a Member State temporarily exceeds its deficit reference value merely as a result of its EFSI contributions. The Commission will factor out such contributions when assessing any breach of the debt reference value.

# 3.2 Alternative suggestions for promoting government investment

Despite fresh EU initiatives to promote capital spending by the government in the past few years, public investment has remained relatively subdued. The current European framework has come under attack from some commentators arguing that too little is being done to encourage public investment. Various suggestions have been made to remedy the problem, roughly breaking down into two categories: changes to the statistical treatment of investment and changes to fiscal rules.

### 3.2.1 Statistical rules

Some observers take issue with the statistical rules to be observed for the inclusion of government investment

in the general government accounts, themselves part of the national accounts. These rules have to comply with the guidelines of the European System of National and Regional Accounts (ESA). ESA 2010 is currently in force but the philosophy underpinning the ESA system has not changed since its first version in 1970.

ESA thinking considers investment a category of spending and therefore a negative influence on the overall balance. This makes sense: funding the investment either increases debt or reduces financial assets. The actual spend is recorded when economic ownership is transferred. The purchase of a capital item, then, will involve charging the full amount at the point of transfer, while the construction of an investment asset will involve attribution as the work progresses and invoices are received or paid.

One thing that has changed in the past few years is that Eurostat is enforcing compliance with some rules much more rigorously and inspecting Member States more closely on their compliance. This increased strictness primarily relates to the definition of government scope, i.e. the institutions ranked among the public sector; a range of alternative types of funding of capital spending; and public private partnerships to build, run and maintain buildings and equipment for some government services by private companies. Eurostat's 2004 methodology manual on government deficit and debt prescribed fairly easy rules governing these partnerships but their actual application remained strict and the rules were tightened up further when Eurostat switched to ESA 2010. Statistical data should really reflect economic reality, and any classification of investment within or outside the public sector should mean addressing the guestion of economic ownership, not legal ownership. A distortion of statistical rules is not a desirable state of affairs in any event and it is imperative that Eurostat issues clear rules, applied transparently and complied with scrupulously by all EU Member States.

#### 3.2.2 Stability and Growth Pact fiscal rules

A significant proportion of suggestions and proposals to promote government investment call for changes to the European governance framework for public finances, as captured in the rules of the Maastricht Treaty and the Stability and Growth Pact. This framework has both a preventive arm aimed at avoiding untenable budgetary situations and a corrective arm covering remedial actions for Member States facing excessive budget deficits or debt<sup>(1)</sup>. A medium-term objective is the key element of the preventive toolkit<sup>(2)</sup> and specifies a specific reference value for individual countries' budget deficits/surpluses, expressed in structural terms. Countries that fail to achieve their medium-term objectives are required to take adjustment measures to converge to their objective at appropriate speeds. The corrective arm still imposes the two original criteria of the Maastricht Treaty. The first is that a government's nominal budget deficit should not exceed 3 % of GDP, unless it has been coming down significantly and consistently and has reached a level close to its reference value or unless the breach is exceptional and temporary and the deficit is close to the reference value. Secondly, current government debt should not exceed 60 % of GDP or, if it does, should be moving towards this reference value at a satisfactory pace.

Proposed changes to the European budget framework typically involve the implementation of the classic golden rule for funding public finances<sup>(3)</sup>. This states that current expenditure should be covered by current receipts and should not be defrayed from borrowings. Investment spending, by contrast, may be paid from borrowings. Several arguments in favour of this golden rule come up repeatedly: that, in economic terms, government investment is a source of potential future growth and so of tax revenues; that it is socially imperative to ensure intergenerational equity, meaning that the benefits of government investment are spread across years and sometimes even generations; that allowing capital spending to be funded through borrowing also spreads the costs over time; and lastly that, from a financial perspective, investment is considered an asset that may serve as collateral for the loan agreed to fund it.

Some economists also cite cyclical reasons when arguing the case for the golden rule for funding, i.e. that capital spending may serve to stabilise economies. However, government investment is not a suitable countercyclical policy instrument as preparing, realising and implementing it efficiently requires a great deal of time.

The debate over the implementation of the golden rule has been raging for years and flared up again in the discussions over further changes to the Stability and Growth Pact. A quick recap of a few recent suggestions: Wim Moesen (2016) suggests allowing governments to run deficits to the amount of their gross capital spending. A proponent of a narrow definition of investment (tangible fixed assets), he pushes for the introduction of the golden rule as it puts budget discipline where it belongs, i.e. with current transactions. Another golden

<sup>(1)</sup> Melyn W., L. Van Meensel and S. Van Parys (2015).

<sup>(2)</sup> Medium-term objectives (MTOs) are set down in Member States' stability or convergence programmes and should meet a number of minimum requirements, i.e. at least -0.5% of GDP for euro area countries, although they may be pegged at -1% of GDP in countries with debt ratios well below 60% of GDP and which are looking at minor risks to the sustainability of their long-term public finances.

<sup>(3)</sup> The Fiscal Compact also imposes a golden rule: that the general government should either be looking at a balanced budget or a surplus. This rule is considered to have been met when the structural balance meets the country's MTO or if it is observing the agreed adjustment path towards this objective.

rule proposal was put forward in 2014 by the Bruegel think-tank (Barbiero and Darvas (2014)). They propose the introduction of an asymmetric golden rule to protect public investment in bad times by allowing governments to raise the agreed structural deficit by the net investment total, while the usual Stability and Growth Pact rules should remain in place at all other times. Henri Bogaert (2016) put forward yet another interesting suggestion: that the calculation of medium-term budgetary objectives (MTOs) be changed to factor in net government investment as well as the potential growth of economic activity, the debt ratio and the cost of an ageing population.

One alternative to the introduction of a golden rule could be to replace gross capital spending with depreciation of investment in overall balance calculations, easing the current overall balance of general government by the net investment amount and thus keeping out of the way of any investment stimulus. This echoes a proposal made in 2004 by Olivier Blanchard and Francesco Giavazzi, who cite as one of its advantages that, once the adjusted budget balance reaches a virtual equilibrium, the debt ratio would move towards the government's stock of public capital over time.

To date, the Commission has ignored all of these suggestions to incorporate a golden rule in its proposed reforms of the Stability and Growth Pact. Its main reasons are that it is arguably difficult to define the expenditure categories covered by such a rule; that public spending disruptions might occur and a preference for physical infrastructure emerge; and that a golden rule might encourage current expenditure posing as capital spending. Following the reforms of the Stability and Growth Pact in 2005 and 2011, no further changes to the rules of the Pact are currently being negotiated. That said, it is recommended that serious thought is given to a change in the treatment of public investment in the Stability and Growth Pact, as post-financial crisis restructuring of public finances has hit public investment hard in a number of countries. This would appear to be the way to promote public investment in the current climate of low government investment, weak demand and low inflation, low potential growth and low interest rates. More particularly, it makes solid sense to reconsider the suggestion to take into account depreciation on government investment instead of capital spending - always

assuming, of course that budgetary responsibility and the long-term sustainability of public finances remain intact.

### Conclusions

Government investment typically has a positive effect on economic activity and an economy's productive potential. However, levels of public investment in Belgium and a great many other euro area countries are currently at a low ebb, making it advisable to give them a boost.

In fact, promoting investment was a key strand of the strategy set out by the European Commission when Jean-Claude Juncker took over, taking the shape of its Investment Plan for Europe. The investment clause in the Stability and Growth Pact likewise aims to promote public investment, but its criteria are quite rigorous and only a few countries qualify.

Despite these initiatives to promote capital spending by governments in the past few years, public investment has remained subdued and the question arises whether investment may be stimulated through a change in the statistical treatment of investment or changes in European budgetary rules.

As for the statistical treatment of investment, the ESA 2010 methodology provides clear basic rules that do not need redrafting. That said, it is imperative that Eurostat provides clarity on the rules and their application, obviating any misunderstanding about the recognition of investment by way of public private partnerships or other alternative methods of funding.

As for the European fiscal rules under the Stability and Growth Pact, serious consideration should be given to the way public investment is handled and to making its treatment more favourable. This might be done by replacing investment spending by depreciation on public investment when setting the budget balance, implying that the overall government balance is adjusted for net investment. Facilitating an investment boost, this would be highly desirable in the current climate of low government investment, weak demand and low inflation, low potential growth and low interest rates.

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