

*BEL-DEBT Final Report*

**The Sustainability of Public Finances in  
Belgium:  
European, Federal and Regional Perspectives**

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## ***Preface***

This report presents the main findings of the research conducted for the Federal Science Office (BELSPO), under the Program “Society and Future”, on the sustainability of public finances in Belgium, the BEL-DEBT project.

The report builds on an extensive analytical research combined with policy oriented analysis which is the result of a collaborative effort that draws in the expertise of researchers of the Centre for European Policy Studies, the Catholic University of Leuven and the University of Liège.

The reports aims to summarize and disseminate the main findings of the research by either emphasizing the policy relevance or highlighting the contribution to fillings in gaps in the literature or both.

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## ***Executive Summary***

The Beldebt project aims at addressing again the old issue of the sustainability of public finances of Belgium in order to take into consideration changes, both institutional level and in the economic context, which intervened after 2010.

The institutional changes, both at European (new Stability and Growth Pact, European Semester, the Fiscal Compact) and national level (Sixth Reform of the State) added new dimensions to the issue of the sustainability of public finances.

Changes in the EU governance, towards a tougher system of rules and in principle stronger enforcement mechanisms, aim at a framework where sustainability of public finances is monitored systematically, risks are controlled and debt reduction is (re-)stated as an obligation. The prolonged crisis and the following recession make it difficult to assess whether the system is being really effective but the degree of discretion at national (which is not only federal) level in defining domestic economic policies has certainly diminished.

Institutional changes at the level of the domestic governance are first and foremost driven by forces other than the sustainability of public finances. They usually have political and even emotional nature, but may nonetheless have an effect on debt sustainability. Reallocation of competences to spend and/or tax at different government's levels definitely has an impact on debt sustainability. This may not be straightforward, but potentially substantial if for instance the level which is liable for the debt has lost competence to tax.

The second class of changes was definitely unwanted and embraced both economics and finance: the global financial crisis first and then the sovereign debt crisis in the euro area led to the deepest recession in the region since the second world war but also deeply changed the economic context and the policy agenda. Such changes implied that new dimensions and transmission channels have to be taken into consideration when trying to identify risks that could undermine fiscal sustainability. Since the onset of the global financial crisis and more markedly after the Greek crisis, international financial markets have raised concerns about the long-term sustainability of public debt and put under scrutiny the public finances of many countries. Belgium is one of the examples. Although the creditworthiness of the country was never really questioned, it was openly recognized by the public authorities that a debt close to 100% of GDP is a source of risk.

In this context, it makes sense to propose again an analysis of public finances and their sustainability, even if this is an old topic and a rich economic literature already exists.<sup>1</sup>

Against this background, the objective of this project has been to address the main challenges of the Belgium's public finances considering their regional, national and European dimension. How reforms towards fiscal federalism and the EMU membership, with its baggage of rules and possibly negative spillover effects, are managed matter for debt sustainability, with population ageing providing a continuing background challenge.

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<sup>1</sup> The debate in Belgium was intense during the 1980s and 1990s when the country embarked in a process of significant debt reduction.

From an economic perspective the project starts from the assumption that, in coming years, uncertainty about debt sustainability will depend largely on the cost of financing the existing debt (and rolling over debt). Growth is expected to be low with little variability. In standard macro models, interest rate is assumed to be certain and constant over time. The recent crisis however showed that this is in fact not the case. It depends on factors of different nature and is potentially susceptible of abrupt changes.

The project develops along three lines of research: the macroeconomic and European institutional dynamics related to the membership to the EMU, the effect of long-term trends like ageing and institutional aspects like fiscal federalism. Each of them can be linked to a different level, the European, national and regional dimension respectively.

Overall the findings of the research pointed to three main risk factors: macroeconomic risks of short to medium- term nature mostly related to the EMU membership, long-term risks linked to an ageing population and political risks linked to the institutional setting.

For small countries with large sovereign debt, large financial institutions may represent a source of risk which tend to result in more volatile sovereign debt markets. This is particularly true for countries whose debt is largely held by non-resident and for EMU member countries. Indeed, the cost of refinancing foreign debt (in international financial markets) tends to be more volatile carrying higher risk of liquidity shortage and crisis. This aspect is particularly relevant in a monetary union, where the likelihood of liquidity risk can turn into a default risk is much higher than in a standalone country.

The EMU is different from a stand- alone country with monetary sovereignty. Both theory and empirical findings support the hypothesis of multiple equilibria. Multiple equilibria imply that a liquidity crisis can turn into solvency crisis, even when fundamentals suggest otherwise, driven by market believes and policy makers' incentives to choose default, given that debt cannot be inflated away.

In line with the multiple equilibria hypothesis, empirical findings also suggests that in a monetary union macroeconomic fundamentals matter in a different way than in standalone countries. In particular, in times of crisis they tend to matters less than markets sentiment and this is a source of fragility for the EMU. The crisis also showed that the external position of a country tend to matter a lot in the euro area. Belgium is a natural example of it. His large creditor external position and the current account surpluses are most likely responsible for keeping Belgium sheltered from a sovereign debt crisis. This has two important implications. First, a deteriorating current account, signalling both falling savings and competitiveness, could be seen as a leading indicator of future market risks. Second, while fiscal consolidation did not deliver the expected effects all across the euro area and in some cases led to recession and hence increasing debt-to-GDP ratio in the short term, they force external adjustment. Fiscal consolidation translates into falling imports and hence reduces current account deficits. In several euro area countries this has worked in the direction of slashing liquidity concerns.

In more long term perspective, ageing of population while is definitely a success for society, a great challenge for public finances and definitely a major source of risk to public debt sustainability. Such a risk has different dimensions ranging from the increase of public

expenditure through health care and pension expenditure, to the negative effect on capital accumulation and hence future growth, to the impact of different pension systems without forgetting that a correct measure of the debt should include also implicit liabilities. Calculations shows that debt so computed is extremely high. Last but not least, an ageing population has a negative effect on the current account through lower savings, which as explained above, can lead to liquidity risks.

From a policy perspective, the key point is that in the case of Belgium, where ageing is the result of longevity rather than fall in fertility, the stock of debt is very high (especially when implicit debt is taken into account) and the existing pension system, current commitments cannot be kept under unchanged policies. It can happen that expenditure for pension keeps increasing even if pensions do not increase because the number of retirees continue to increase and/or contributions from young workers do not offset such increase. Changing policy requires to take into account both equity and efficiency. In this perspective, raising retirement age along with longevity is a necessary step. This should be combined with measures aiming at fair treatment across the different pension systems (de facto three, namely for self-employed, employed and civil servants) but also targeting the generalized implementation of second pillar schemes to offset declining payments coming from the state.

In this respect, as well as in many other respect, the division of powers among the different levels of government matters. With the Sixth reform of the Belgian State, the most important investment expenditure powers have been transferred to regions while the federal government kept current expenditure. This occurred in a context where the debt position is a source of risk and it is unlikely that such new setting will contribute to improve the fiscal consolidation effort.

Overall, due to the large stock of debt, both explicit and implicit, Belgium will be called to face significant challenges. These require implementation of important policy changes. Nonetheless, the country still enjoy features, like abundant savings and still favorable fertility rates, which make it a fairly good position relative to other European fellows. It will be important to keep such relative advantages. Additional challenges may emerge from the institutional setting which may become a source of political risk, especially if changes are driven only by political or even emotional considerations.

## ***Résumé***

Le projet Beldebt reconsidère se penche une nouvelle fois sur la vieille question de la viabilité des finances publiques de la Belgique à la lumière des changements institutionnels et économiques survenus après 2010.

Suite aux changements institutionnels, tant au niveau européen (nouveau pacte de stabilité et de croissance, semestre européen, pacte budgétaire) qu'au niveau national (Sixième réforme de l'Etat) la question de la viabilité des finances publiques a pris une nouvelle dimension.

Les changements au sein de la gouvernance de l'UE, vers un système plus sévère de règles et un mécanisme d'application en principe plus fort, visent la création d'un système où la viabilité des finances publiques est systématiquement contrôlée, les risques sont maîtrisés et la réduction de la dette devient une obligation. La crise prolongée et la profonde récession qui a suivi rendent difficile l'évaluation de l'efficacité du système, mais ce qui est certain est que le degré de discrétion au niveau national (pas uniquement fédéral) dans la définition des politiques économiques nationales a diminué.

Les changements au sein de la gouvernance nationale ne sont pas souvent motivés par des considérations ayant un lien avec les finances publiques. Ils sont généralement de nature politique et même émotionnelle, mais peuvent néanmoins avoir un effet sur la viabilité de la dette. La réattribution des compétences à dépenser et / ou à taxer aux différents niveaux du gouvernement a certainement un impact sur la soutenabilité de la dette. Ceci peut être indirect, mais potentiellement important lorsque par exemple, le niveau qui est responsable pour la dette perd la compétence à taxer.

La deuxième catégorie de changements n'a assurément pas été désirée mais elle a touché l'économie et les finances. La crise financière mondiale d'abord et puis la crise de la dette souveraine dans la zone euro, ont provoqué la plus profonde récession dans la région depuis la seconde guerre mondiale. Elles ont également changé profondément le contexte économique et les priorités politiques. Ces changements ont signifié devoir tenir compte de nouveaux critères et de nouveaux mécanisme de transmission pour être en mesure d'identifier les risques qui pourraient ébranler la viabilité budgétaire. Depuis le début de la crise financière mondiale et surtout après la crise grecque, les marchés financiers internationaux ont exprimé leur inquiétude à propos de la viabilité à long terme de la dette publique et ont demandé un examen approfondi des finances publiques de nombreux pays, comme par exemple la Belgique. Bien que la solvabilité du pays n'ait jamais vraiment été mise en question, il a été ouvertement reconnu par les autorités publiques qu'une dette de près de 100% du PIB représente en effet un facteur de risque.

Dans ce contexte, il est logique de proposer à nouveau une analyse des finances publiques et de leur viabilité, même s'il s'agit d'un vieux sujet qui a fait l'objet de nombreux ouvrages.

Le but de ce projet a été d'identifier les principaux défis pour les finances publiques de la Belgique compte tenu de leur dimension régionale, nationale et européenne. La façon dont

les réformes vers le fédéralisme fiscal et l'appartenance à l'UEM, avec son lot de règles et d'externalités, sont gérés peut influencer la viabilité de la dette, surtout dans un contexte caractérisé par le vieillissement de la population.

D'un point de vue économique, le projet part du principe que dans les prochaines années, l'incertitude quant à la viabilité de la dette dépendra en grande partie du coût du financement de la dette existante. La croissance restera faible avec peu de variabilité. Les modèles macro-économiques standards assume que le taux d'intérêt est certain et constant dans le temps. La crise récente a toutefois montré que ceci n'est pas le cas. Cela dépend de différents facteurs et est potentiellement susceptible de changements brusques.

Le projet se développe selon trois axes de recherche: les dynamiques macroéconomiques et institutionnelles européennes relatives à l'appartenance à l'UEM, l'effet des tendances à long terme comme le vieillissement et les aspects institutionnels nationaux comme le fédéralisme fiscal.

Globalement, les résultats de la recherche ont individué trois facteurs principaux de risque: les risques macroéconomiques de court et moyen terme principalement liés à l'appartenance à l'UEM, les risques à long terme liés à une population vieillissante et les risques politiques liés au cadre institutionnel national.

Pour les petits pays dont la dette souveraine est importante, les grandes institutions financières et leur problème peuvent représenter une source de risque pouvant entraîner une volatilité très élevée sur les marchés de la dette souveraine. Cela est particulièrement vrai pour les pays dont la dette est en grande partie détenue par des non-résidents et pour les pays membres de l'UEM. En effet, l'UEM avec l'absence d'un prêteur de dernier ressort comporte un risque accru de pénurie de liquidité et de crise. Cela fait que la probabilité que le risque de liquidité se transforme en un risque de faillite est beaucoup plus élevé que dans un pays 'autonome'.

L'UEM est différente d'un pays 'autonome' avec sa pleine souveraineté monétaire. La théorie et les résultats empiriques du rapport soutiennent l'hypothèse d'équilibres multiples. Les équilibres multiples impliquent qu'une crise de liquidité peut se transformer en crise de solvabilité, même lorsque les fondamentaux suggèrent le contraire. Ceci peut être motivé par les croyances des marchés financiers et/ou par des considérations des décideurs de politique qui pourraient trouver raisonnable de choisir la faillite même si les fondamentaux macroéconomiques sont assez solides, étant donné que la dette ne peut pas être réduite par l'inflation.

Dans la même ligne que l'hypothèse d'équilibres multiples, les résultats empiriques suggèrent également que dans une union monétaire les fondamentaux macroéconomiques ont une importance différente que dans les pays autonomes. En particulier, en temps de crise ils ont tendance à avoir moins d'importance que le sentiment des marchés et cela est une source de fragilité pour l'UEM. La crise a également montré que la position extérieure d'un pays peut avoir beaucoup d'importance dans la zone euro. La Belgique en est l'exemple parfait. Sa position extérieure en tant que grand créancier et les excédents du compte de transactions courantes ont permis au pays de rester à l'abri d'une crise de la dette souveraine. Cela a deux conséquences importantes. D'abord, une détérioration du solde de la balance de

transactions courante, peut être interprétée comme le signe d'une chute de l'épargne et de la compétitivité, ce qui pourrait être considéré comme un indicateur de futurs risques de marché. Deuxièmement, les efforts de consolidation budgétaire n'ont pas eu les effets escomptés dans tous les pays membres. Dans certains cas, le résultat a été une forte récession économique et l'augmentation du rapport de la dette en relation au PIB, au moins à court terme. Ce même efforts ont été aussi responsable pour l'ajustement extérieur dans plusieurs pays: l'assainissement fiscal se traduit en baisse des importations ce qui améliore le solde de la balance courante. Même si douloureux, car il signifie une baisse de la consommation, l'amélioration du solde courant a conduit à réduire considérablement les problèmes de liquidité.

Dans une approche plus à long terme, le vieillissement de la population tout en étant certainement un succès pour la société représente aussi un grand défi pour les finances publiques et un élément important de risque pour la viabilité de la dette publique. Un tel risque a des dimensions différentes comme l'augmentation des dépenses publiques par le biais des soins de santé et les dépenses liées à la retraite et les un effet négatif sur l'accumulation de capital et donc la croissance future. Mais il ne faut pas oublier que des différents systèmes de retraite ont des effets différents et que pour mesurer correctement la dette on devrait inclure aussi les passifs implicites. Les calculs montrent que la dette ainsi calculée est extrêmement élevée. Enfin, une population vieillissante a un effet négatif sur le compte de transactions courantes à cause d'un taux d'épargne plus faible, qui, comme expliqué ci-dessus, peut conduire à des risques de liquidité.

En ce qui concerne les implications politiques, le point clé est que dans le cas de la Belgique, où le vieillissement est le résultat de la longévité plutôt que de la baisse de la fécondité et le stock de la dette est très élevé (surtout quand la dette implicite est prise en compte) les engagements actuels liés au système de retraite existant ne peuvent pas être tenus en vertu des politiques inchangées. Il peut arriver que les dépenses liées à la retraite ne cessent d'augmenter et que les contributions des jeunes travailleurs ne puissent pas compenser cette augmentation. Changer de politique implique tenir compte à la fois de l'équité et l'efficacité. Dans cette perspective, augmenter l'âge légal du départ à la retraite est une étape nécessaire. Cela devrait être combiné avec des mesures visant à un traitement équitable des différents systèmes de retraite (trois de facto, à savoir pour les indépendants, les employés et les fonctionnaires), mais ciblant également la mise en œuvre généralisée des régimes du deuxième pilier pour compenser la baisse des paiements en provenance de l'État.

À cet égard, la division des pouvoirs entre les différents niveaux du gouvernement a son importance. Avec la sixième réforme de l'Etat belge, les pouvoirs d'investissement les plus importants ont été transférés aux régions alors que le gouvernement fédéral a maintenu le contrôle sur les dépenses courantes. Ceci s'est produit dans un contexte où la position de la dette est une source de risque et il est peu probable que ce nouveau cadre contribue à améliorer l'effort d'assainissement budgétaire.

Dans l'ensemble, en raison de l'important niveau de dette, à la fois explicite et implicite, la Belgique sera appelée à faire face à des défis importants. Ceux-ci exigent la mise en œuvre des changements de politique importants. Néanmoins, le pays peut encore profiter d'une épargne abondante et de taux de croissance favorables, ce qui place le pays en bonne

position par rapport aux autres pays européens. Il sera important de garder ces avantages relatifs. Des défis supplémentaires peuvent émerger du cadre institutionnel pouvant devenir une source de risque politique, en particulier si des changements sont motivés uniquement par des considérations politiques ou même émotionnelles.

### ***Samenvatting***

Het Beldebt project beoogt de houdbaarheid van de openbare financiën van België te onderzoeken om de veranderingen te analyseren, zowel op het institutionele niveau als in de economische context, die na 2010 optraden.

De institutionele veranderingen, zowel op Europese niveau (het nieuwe Stabiliteits- en groeipact, het Europees semester en het begrotingspact) als het nationale niveau (de zesde staats hervorming) creëerden nieuwe dimensies inzake de houdbaarheid van de openbare financiën.

De veranderingen in het EU bestuur naar een strenger systeem van regels en – in principe – sterkere handhavingsmechanismen beogen een kader waarin de houdbaarheid van openbare financiën systematisch wordt gemonitord, risico's worden gecontroleerd en schuldafbouw (opnieuw) wordt verplicht. De langdurige crisis en de daaropvolgende recessie maken het moeilijk te analyseren of het systeem werkelijk effectief is maar de ruimte om een economisch beleid te voeren op nationaal niveau (die niet alleen federaal is) is zeker gereduceerd.

Institutionele veranderingen op het niveau van binnenlands beleid worden voornamelijk bepaald door andere factoren dan de houdbaarheid van publieke financiën. Deze zijn meestal van politieke of zelfs emotionele aard, maar kunnen desalniettemin een impact hebben op de schuldhoudbaarheid. Bevoegdheidsverschuivingen die leiden tot uitgaven en/of belastingen op verschillende bestuursniveaus hebben zeker een impact op de schuldhoudbaarheid. Dit is niet altijd eenduidig maar kan wel eventueel substantieel zijn wanneer bijvoorbeeld het niveau verantwoordelijk voor schulden de bevoegdheid om belastingen te innen heeft verloren.

De tweede cluster veranderingen was ongewenst en omvatte zowel het economische als het financiële: de wereldwijde financiële crisis en de daaropvolgende staatsschuldencrisis in de eurozone die leidde tot de diepste recessie in de regio sinds de Tweede Wereldoorlog. Deze gebeurtenissen veranderden aanzienlijk de economische context en de beleidsagenda. Bovendien impliceerden ze dat er rekening moet gehouden worden met nieuwe dimensies en transmissiekanalen tijdens het identificeren van de risico's die de fiscale houdbaarheid kunnen ondermijnen. Sinds de aanvang van de wereldwijde financiële crisis, en voornamelijk na de Griekse crisis, hebben de internationale financiële markten bezorgheden geuit betreffende de houdbaarheid van de staatsschulden op lange termijn en werden de openbare financiën van verschillende landen nauwlettend in de gaten gehouden. België is hier een voorbeeld van. Ook al werd de kredietwaardigheid van het land nooit echt betwist verklaarden beleidsmakers publiekelijk dat een schuld van bij de 100% van het BBP een serieus risico inhoudt.

In deze context is het nuttig om opnieuw een analyse van – de houdbaarheid van – overheidsfinanciën voor te stellen, ook al is dit geen nieuw onderwerp en bestaat er hierover reeds veel economische literatuur.<sup>2</sup>

Tegen deze achtergrond was het doel van dit project om de belangrijkste uitdagingen van de overheidsfinanciën van België te behandelen, rekening houdend met de regionale, nationale en Europese dimensie. De manier waarop de hervormingen voor een fiscaal federalisme en lidmaatschap van de economische en monetaire unie (EMU) worden beheerd, inclusief de verschillende regels en mogelijke negatieve spillover effecten die hiermee gepaard gaan, zijn belangrijk voor de schuldhoudbaarheid. Bovendien biedt de vergrijzing een voortdurende achterliggende uitdaging.

Vanuit een economisch perspectief start dit project met de veronderstelling dat in de komende jaren de onzekerheid betreffende de schuldhoudbaarheid voornamelijk afhankelijk zal zijn van de kost van het financieren van de bestaande schuld en schuldvernieuwing. Er wordt een lage groei verwacht met een kleine variabiliteit. In standaard macro-economische modellen gaat men er van uit dat de interestvoet vast en constant is doorheen de tijd. De recente crisis toonde aan dat dit echter niet het geval is. Dit hangt af van verschillende factoren en is potentieel gevoelig voor abrupte veranderingen.

Dit project is gestoeld op drie onderzoekdimensies: (i) de macro-economische en Europese institutionele dynamieken gerelateerd aan EMU lidmaatschap, (ii) het effect van langetermijnontwikkelingen zoals vergrijzing en (iii) institutionele aspecten zoals fiscaal federalisme. Deze kunnen allemaal gelinkt worden aan een verschillend niveau, respectievelijk de Europese, nationale en regionale dimensie.

De resultaten van het project gaven drie cruciale risicofactoren aan: (i) macro-economische risico's van korte tot middellange termijn voornamelijk gerelateerd aan EMU lidmaatschap, (ii) lange termijn risico's gerelateerd aan vergrijzing en politieke risico's gerelateerd aan de institutionele setting.

Voor kleinere landen met een grote staatsschuld kunnen grote financiële instellingen een risico inhouden die leiden tot een volatielere staatschuldenmarkten. Dit is voornamelijk het geval voor landen die schulden hebben bij niet-ingezetenen en voor landen van de EMU. Inderdaad, de kost van het herfinancieren van buitenlandse schuld (in internationale financiële markten) is dikwijls volatieler. Dit verhoogt het risico op een liquiditeitstekort en crisis. Dit aspect is voornamelijk relevant in een monetaire unie waar de kans dat een liquiditeitsrisico overslaat in een 'default risico' veel groter is dan in een 'autonoom' land.

De EMU is verschillend van een autonoom land met een eigen monetaire bevoegdheid. Zowel theoretische als empirische bevindingen ondersteunen de hypothese van 'multiple equilibria'. Dit houdt in dat een liquiditeitscrisis kan laten overslaan in een solvabiliteitscrisis, ook al blijkt dit niet uit de 'fundamentals'. Wanneer de markt veronderstelt dat een land in default zal gaan of wanneer beleidsmakers de incentive hebben

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<sup>2</sup> Dit debat woedde in België volop in de jaren 80 en 90 toen het land verweekeld was in een significant proces van schuldreductie.

om te kiezen voor een default, dan zal dit ook gebeuren. De kans dat dit gebeurt is zelfs groter wanneer de schuld niet kan worden weggewerkt door inflatie.

In overeenstemming met de multiple equilibria hypothese suggereren empirische bevindingen dat in een monetaire unie macro-economische fundamentals op een verschillende manier bepalend zijn i.v.m. autonome landen. Ze lijken voornamelijk in crisistijden minder belangrijk te zijn dan marktsentiment. Dit is een bron van fragiliteit voor de EMU. De crisis toonde aan dat de externe positie van een land zeer bepalend is in de eurozone. België is hier een klassiek voorbeeld van. De grote externe schuldpositie en het huidig overschot op de lopende rekeningen van België hebben waarschijnlijk het land behoed voor een staatschuldencrisis. Dit heeft twee belangrijke implicaties. Ten eerste, een verslechterende lopende rekening - wijzend op zowel dalende spaartegoeden als competitiviteit - kan gezien worden als een belangrijke indicator van toekomstige marktrisico's. Ten tweede, terwijl fiscale stabilisatie niet de gehoopte resultaten opbracht in de volledige eurozone en in sommige gevallen tot een recessie leidde, en dus de schuld-BBP ratio verhoogde op korte termijn, forceerden ze externe aanpassingen. Fiscale stabilisatie leidt tot dalende import en reduceert bijgevolg tekorten op de lopende rekening. In verschillende landen van de eurozone leidde dit tot minder zorgen omtrent de liquiditeit.

Vanuit een langetermijnperspectief is vergrijzing (ook al is dit een succes voor de maatschappij) een grote uitdaging voor de openbare financiën en zeker een risico voor de houdbaarheid van de staatsschulden. Dit risico heeft verschillende dimensies zoals een toename in overheidsuitgaven door gezondheidszorg en pensioenkosten, negatieve effecten op kapitaalaccumulatie (en bijgevolg toekomstige groei) en de impact van verschillende pensioenstelsels. Men mag ook niet vergeten dat een aanvaardbare schuldgraad ook rekening moet houden met de impliciete schuld. Berekeningen tonen aan dat een schuld die op dergelijke manier is berekend heel hoog is. Ten laatste, een vergrijzende bevolking heeft een negatief effect op de lopende rekening door lagere spaartegoeden, wat kan leiden tot liquiditeitsrisico's (zoals hierboven werd uitgelegd).

Vanuit een beleidsstandpunt is het belangrijkste punt voor België, waar vergrijzing het resultaat is van een langere levensduur i.p.v. een daling van de geboortecijfers, de schuld hoog is (vooral wanneer de impliciete schuld in rekening wordt genomen) en het pensioensysteem genereus is, dat de huidige situatie onhoudbaar is. Het is zelfs mogelijk dat de pensioenuitgaven blijven stijgen zelfs wanneer de pensioenen niet stijgen doordat het aantal gepensioneerden blijft toenemen of/en de bijdragen van de werkende klasse deze toename niet compenseren. Beleidswijzigingen moeten rekening houden met zowel billijkheid als efficiëntie. Vanuit dit perspectief is het verhogen van de pensioenleeftijd in lijn met de levensduurte een noodzakelijke stap. Dit zou moeten gecombineerd worden met maatregelen die een faire behandelingen beogen over alle pensioensystemen heen (de facto drie systemen, namelijk voor zelfstandigen, bedienden en ambtenaren) maar ook de implementering van de tweede pijler aanpakken om de dalende staatsinkomsten te compenseren.

In dit opzicht, en in veel andere opzichten, is de verdeling van bevoegdheden tussen de verschillende beleidsniveaus van belang. Door de zesde staatshervorming zijn de belangrijkste bevoegdheden met betrekking op investeringsuitgaven overgeheveld naar de

regio's terwijl de uitgaven op het federale niveau constant bleven. Dit vond plaats in een context waarin de schuldenpositie een belangrijke bron van risico inhoudt en waarin het onwaarschijnlijk is dat de nieuwe setting zal bijdragen tot fiscale consolidatie.

Door de grote schuld, zowel impliciet als expliciet, zal België geconfronteerd worden met verschillende uitdagingen. Deze eisen implementatie van belangrijke beleidswijzigingen. Desalniettemin beschikt dit land over verschillende positieve paramaters zoals hoge spaartegoeden en gunstige geboortecijfers. Dit zorgt ervoor dat België in een relatief goede positie zit in vergelijking met de Europese partners. Het zal belangrijk zijn om deze relatieve voordelen te behouden. Nieuwe uitdagingen kunnen resulteren uit het institutionele kader en kunnen een politiek risico vormen, vooral wanneer veranderingen alleen gedreven worden door politieke of emotionele overtuigingen.

## **1. Introduction**

The proposal of this research project falling under the general heading of public finances was prepared during summer of 2010. That period was marked by few relevant events for Belgium both at economic and political level.

The first and more pervasive event was the sovereign debt crisis in Greece erupted in May 2010. The crisis quickly spread to the whole euro area through panic materializing across financial markets and turbulences hitting both banks and sovereign. In addition the direct economic impact in terms of rising financing costs for many euro area countries and the beginning of a deep recession in the periphery, this event marked the onset of significant changes in the European economic governance, with consequences also for countries not directly hit by the crisis, like Belgium.

Second, the year 2010 marked the opening of the longest period for a country without an elected government: Belgium remained in the hands of a temporary caretaker government for 541 days, between April 2010 and December 2012. During this long period of relative (given the situation) stability but with an almost powerless government, the country's political debate was dominated by a substantial internal discussion about the so-called refinancing law, which is the set of legislative elements ruling the relationship between the different levels of power in the country, i.e. the federal state, the regions and the communities.

Why does all this matter in the context of the Bel-debt project? It matters because these events and the changes that they triggered affected, to a different extent, the answer to the old question of what determines the sustainability of public finances. Indeed, the events of 2010 changed the answer and the emphasis that one would have offered years earlier.

The institutional changes, both at European (new Stability and Growth Pact, European Semester, the Fiscal Compact) and national level (Sixth Reform of the State) added new dimensions to the issue of the sustainability of public finances.

Changes in the EU governance, towards a tougher system of rules and in principle stronger enforcement mechanisms, aim at a framework where sustainability of public finances is monitored systematically, risks are controlled and debt reduction is (re-)stated an obligation. The prolonged crisis and the following recession make it difficult to assess whether the system is being really effective but the degree of discretion at national (which is not only federal) level in defining domestic economic policies has certainly diminished.

Institutional changes at the level of the domestic governance are first and foremost driven by forces other than the sustainability of public finances. They usually have political and even emotional nature, but may nonetheless have an effect on debt sustainability. Reallocation of competences to spend and/or tax at different government's levels definitely has an impact on debt sustainability. This may not be straightforward, but potentially substantial if for instance the level which is liable for the debt has lost competence to tax.

The second class of changes was definitely unwanted and embraced both economics and finance: the global financial crisis first and then the sovereign debt crisis in the euro area led

to the deepest recession in the region since the second world war but also deeply changed the economic context and the policy agenda. Such changes implied that new dimensions and transmission channels have to be taken into consideration when trying to identify risks that could undermine fiscal sustainability. Since the onset of the global financial crisis and more markedly after the Greek crisis international financial markets have raised concerns about the long-term sustainability of public debt and put under scrutiny the public finances of many countries. Among them the member states of the Euro zone periphery (Greece, Portugal, Ireland, Spain and Italy), which are also the ones with the highest level of public debt, have been the first in the list and have been all downgraded (once or more than once) by rating agencies. But the same destiny was also reserved to the US, whose debt has lost the best grade from S&P in September 2011. Similarly, some core Euro Area countries have been put under close monitoring. Belgium is one of the examples. Although the creditworthiness of the country was never really questioned, it was openly recognized by the public authorities that a debt close to 100% of GDP is a source of risk. This was especially the case at least until late 2012 (when the ECB promised to do whatever it takes) in an environment of prolonged crisis in the peripheral euro area countries, danger of contagion and high risk aversion. Indeed Moody's put Belgium's credit rating under review in October 2011 with the argument that the euro area sovereign debt crisis could result in a higher vulnerability of the wholesale financial environment for all euro sovereigns and banks, leading to an increase in long-term funding risks and increase the likelihood of additional bank support measures which would add further pressure on the government balance sheet. This is indeed what happened. Few days after the review was realized the Belgian government had to step in to save Dexia bank. This is just an example of how events considered almost impossible materialise in a context of crisis with potentially dramatic effect on public finances, even when they appear sound as it was the case of Ireland in late 2010.

In this context, it makes sense to propose again an analysis of public finances and their sustainability, even if this is an old topic and a rich economic literature already exists.<sup>3</sup>

Against this background, the objective of this project has been to address the main challenges of the Belgium's public finances considering their regional, national and European dimension. How reforms towards fiscal federalism and the EMU membership, with its baggage of rules and possibly negative spillover effects, are managed matter for debt sustainability, with population ageing providing a continuing background challenge.

From an economic perspective the project starts acknowledging that given the perspective of low growth for the coming years, uncertainty about debt sustainability will depend largely on the cost of financing the existing debt (and rolling over debt). This will then be the key variable. In standard macro models, this cost, i.e. the interest rate, is assumed to be certain and constant over time. The recent crisis however showed that this is in fact not the case, it depends on factors of different nature and is potentially susceptible of abrupt changes.

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<sup>3</sup> The debate in Belgium was intense during the 1980s and 1990s when the country embarked in a process of significant debt reduction.

The investigation of the factors that affect this cost will be the common denominator of this project. The issue will be addressed at both the economic and the institutional level and will include the analysis of the possible effects of the Sixth State reform in Belgium as well as long term trends like ageing.

The project has been developed along three lines of research: the macroeconomic and European institutional dynamics related to the membership to the EMU, the effect of long-term trends like ageing and institutional aspects like fiscal federalism. Each of them can be linked to a different level, the European, national and regional dimension respectively.

This report summarizes the main findings of the project along the three research lines and draws overall policy considerations. These also take into account the experts' discussion held in occasion of the final conference of the project in February 2014.

The rest of the report is organized as follows. Sections 2 and 3 focus on the European dimension highlighting how the EMU membership affects the analysis of the sustainability of debt, both in a theoretical and empirical framework. Sections 4, 5 and 6 look into the long term factors affecting debt sustainability, by investigating the relationship between ageing and savings, analysing theoretically how different pension systems affect the macroeconomic framework and estimating the implicit debt of Belgium, respectively. Section 7 focusses on domestic institutional issues and looks at the latest reform of the State and the likely effects on debt sustainability as well as at the political economy dimension of the decentralization, which is at the heart of such reform.

## ***2. Debt sustainability in a monetary union: a theoretical approach***

The analysis of the sustainability of public finances of a country cannot make abstraction of the membership to a monetary union. This section summarizes the main findings of a theoretical analysis that focussed on the incentives (costs and benefits) of a government to default on its debt obligations when it cannot print money, like it is the case in the EMU. In this context it also assessed the importance of who holds the debt, i.e. whether the debt is held domestically or in the hands of foreign investors.

### ***2.1 Analytical framework to assess sovereign default risk***

It can be shown that in a theoretical framework high level of public debt can lead to indeterminacy for risk premia. In facts, even a high level of public debt could be sustainable if the government only had to pay the low interest rate corresponding to riskless investment. Yet the same level of debt might become unsustainable, forcing a default, if the interest rate on public debt were much higher. Many authors have therefore argued that there might be multiple equilibria: if the market thinks the government can pay, it will be able to pay because the risk premium will be low. If the market thinks that the government cannot pay, it will not be able to pay, because the risk premium will be so high that debt service becomes too expensive for the government to finance. Doubts about the ability of a government to service its debt could thus become self-fulfilling. Kopf (2011) and de Grauwe (2011) have argued that within the euro area, because of the lost monetary sovereignty, all national governments are in this situation and that a crisis could arise when the market just switches

from the good (low interest rate) to the bad equilibrium (high interest rates), thus forcing a default. One can think of how the problem facing a country that cannot print the currency in which its debt is denominated, like it has been the case for the foreign debt of emerging market economies, can be framed and analysed at theoretical level.

The model presented by Daniel Gros (2013) is different in nature from the literature on speculative attacks on highly indebted countries, which looks at the trade-off between using the printing press or taxes to service high levels of public debt<sup>4</sup>. When the government cannot print the currency in which its debt is denominated, it has only the choice of increasing taxes or defaulting.

The model incorporates two types of sovereign default cost: a lump-sum cost due to the fact that the country does not service its debt fully and is recognised as being in default status, by ratings agencies for example, and a cost that increases with the size of the losses (or haircut) imposed on creditors whose resistance to a haircut increases with the proportional loss inflicted upon them. One result of the model is that under certain circumstances the creditors have a (collective) interest to forgive some debt in order to induce the country not to default. The model also exhibits a potential for multiple equilibria, given that a higher interest rate charged by investors increases the debt service burden and thus the temptation to default. Under very high debt levels, credit rationing can set in as the feedback loop between higher interest rates and the higher incentive to default can become explosive. Overall the findings of the model support the argument that the risk of sovereign default in a monetary union is larger than in a standing alone country and proves the hypothesis that multiple equilibria exist.

## **2.2 Foreign Debt versus domestic debt in the euro area**

The analysis presented by Gros (2013) starts from the observation that in the aftermath of the 2008 financial crisis, public debt increased sharply throughout the developed world. This trend has been particularly marked within the euro area where several governments needed financial assistance from the IMF and the newly created European emergency assistance mechanism, the European Stability Mechanism (ESM). The main argument proposed in the paper is that public debt is a much greater source of risks (so debt stability) when it is owed to foreigners, i.e. when it constitutes foreign debt. There are two reasons for this. First interest payments on foreign debt are transfers of resources generated in the country to the rest of the world, while in the case of domestic debt it is redistribution of resources within the country (in principle from tax-payers to savers). Hence, when a country relies importantly on external funding (in absolute terms but also as share of the total) the incentive for a government to default may be greater than otherwise: in fact, in that case, a default would mean a net transfer to the domestic economy from abroad. By contrast, if public debt is held mainly by domestic residents (which are also voters and tax payers) a default would mean a transfer within the home country and hence the government has lower incentive in doing so.

Secondly there is some evidence that the cost of refinancing foreign debt (in international financial markets) tends to be more volatile carrying higher risk of liquidity shortage and

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<sup>4</sup> See Obstfeld, 1995 and Adrian & Gros, 1999.

crisis. This aspect is particularly relevant in a monetary union, where the likelihood of liquidity risk can turn into a default risk is much higher.<sup>5</sup>

This view implies that the key to overcoming the euro crisis is in the external adjustment, not the fiscal adjustment. Another implication is that during a crisis a strong fiscal adjustment is desirable, not because it can reduce immediately the public debt/GDP ratio, but because it reduces domestic absorption (including imports) and thus reinforces the external adjustment.

### ***3. Sovereign borrowing costs in a Monetary Union***

One of the main manifestations of the crisis in the euro area has been the increase in the spreads on sovereign debt of many Member States. Alcidi (2014) offers a survey of the theoretic and empirical literature on the determinants of the sovereign borrowing cost. The paper explores the risk factors that could drive sovereign risk premia in relation to a country's fiscal performance, liquidity factors and risk perception as well as the ageing-borrowing cost causality, through the effect on private savings and current account transactions. The survey shows that results are robust neither cross-country nor over time. Pricing of borrowing tends to differ in emerging and advanced economies. Moreover after the years of the great moderation when spreads were unrealistically low, the dramatic surge driven by the crisis points to market failures and mispricing driven by exuberance and panic. Nonetheless, while it is clear that fundamentals alone cannot explain sovereign borrowing costs, so called market sentiment can hide elements which are related to expectations about future fundamentals.

Against this background De Gauwe and Ji (2013) address two major questions: how these sudden surges in the government bond rates can be explained and second, how these escalation in the government bond rates have affected macroeconomic and budgetary policies.

#### ***3.1 The causes of the surge in government bond rates during 2010-12***

The most visible expression of Euro area government debt crisis erupted during 2010 was a spectacular increase in long term government bond rates in the countries hit by the crisis.

An important empirical puzzle concerning the sovereign debt crisis is that it erupted in the Eurozone despite the fact that the fiscal position of the Eurozone as a whole was better than the fiscal position of countries like the US and the UK that were left unscathed by the crisis. True Greece had accumulated unsustainable debt and deficit levels, but the other Eurozone countries that were hit by the debt crisis were not in a worse fiscal position than the US and the UK.

The explanation of this puzzle developed by De Gauwe and Ji (2013a) follows the lines developed in De Grauwe (2011), who argues that government bond markets in a monetary

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<sup>5</sup> See De Grauwe (2011) and De Grauwe and Ji, (2013a) and (2013b)

union are more fragile and more susceptible to self-fulfilling liquidity crises than in stand-alone countries. The reason is that as the latter issue their own money, they give a guarantee to bondholders that the cash will always be available at maturity. The members of a monetary union cannot give such a guarantee and as a result are more vulnerable to negative market sentiments that in a self-fulfilling way can create a liquidity crisis. In order to test the fragility hypothesis, a model that explains the spreads by a number of fundamental variables (government debt to GDP ratio, net external debt, competitiveness) is estimated. In a second stage, structural breaks are identified in the model, so as to find out how robust the explanatory power of the model is. In a third stage, the model augmented with time dummy variables is estimated. This allowed us to identify periods of regime switching during which market sentiments drive the spreads away from their underlying fundamentals, and to analyse how much of the total variation of the spreads can be accounted for by these time dummies.

In order for this test to be convincing, a control group of countries that do not belong to a monetary union is added. A sample of 14 “stand-alone” countries of the advanced economies is considered and the hypothesis that movements of the spreads away from their underlying fundamentals similar to what happened in the EMU is tested. The theory predicts that the crisis features discussed above should not happen in countries that have full control over the currency in which they issue their debt.

On the whole, the data confirm this hypothesis. Evidence emerges that a more than half of the surge in the spreads of the peripheral Eurozone countries during 2010–11 can be explained by the time dummies that proxy changes in market sentiments. Thus these spreads were to a large part (not fully though) disconnected from underlying increases in the debt to GDP ratios and fiscal space, and was the result of time dependent negative market sentiments that became very strong at the end of 2010. The exception is Greece where the major increase in the spread was actually due to deteriorating fundamentals. The stand-alone countries in the sample have been immune from these liquidity crises and weathered the storm without the increases in the spread.

The analysis also suggests that after years of neglecting high debt to GDP ratios, investors became increasingly worried about the high debt to GDP ratios in the Eurozone, and reacted by raising the spreads. No such worries developed in stand-alone countries despite the fact that debt to GDP ratios were equally high and increasing in these countries. This result can also be said to validate the fragility hypothesis, i.e. the markets appear to be less tolerant towards large public debt accumulations in the Eurozone than towards equally large public debt accumulations in the stand-alone countries.

Thus, the story of the Eurozone is also a story of self-fulfilling debt crises, which in turn lead to multiple equilibria. Countries that are hit by a liquidity crisis are forced to apply stringent austerity measures that force them into a recession, thereby reducing the effectiveness of these austerity programs. There is a risk that the combination of high interest rates and deep recessions turn the liquidity crisis into a solvency crisis.

In a world where spreads are tightly linked to the underlying fundamentals such as the debt to GDP ratio, the only option the policy makers have in reducing the spreads is to

improve the fundamentals. This implies measures aimed at reducing the debt burden. If, however, there can be a disconnection between the spreads and the fundamentals, a policy geared exclusively towards affecting the fundamentals (i.e. reducing the debt burden) will not be sufficient. In that case policy makers should also try to stop countries from being driven into a bad equilibrium. This can be achieved by more active liquidity policies by the ECB that aim at preventing a liquidity crisis from leading to self-fulfilling solvency crisis (De Grauwe, 2011).

### ***3.2 How did the surge in the government bond rates affect budgetary policies***

De Grauwe and Ji (2013b) provide evidence that the surges in these rates forced countries into implementing intense austerity measures. If our previous analysis is correct, i.e. a large part of the increases in the bond rates were the result of overreaction in the financial markets, it can be concluded that since the start of the debt crisis financial markets have provided wrong signals. Led by fear and panic they pushed the spreads to artificially high levels and forced countries lacking the cash into intense austerity producing great suffering in these countries. They also gave the wrong signals to the European authorities, in particular the European Commission that went on a crusade trying to enforce more austerity. Thus financial markets acquired great power in that they spread panic into the world of the European authorities that translated the market panic into enforcing excessive austerity. While the ECB finally acted in September 2012 it can also be argued that had it acted earlier much of the panic in the markets may not have occurred and the excessive austerity programs may have been avoided.

The paper also documents that these quick and intense austerity programs not only led to deep recessions, but also did not help to restore sustainability of public finances. On the contrary, the same austerity measures led to dramatic increases of the debt to GDP ratios in Southern countries, thereby weakening their capacity to service their debts. Thus, in a sense it can be said that the austerity programs' legacy is high and unsustainable government debt levels in a number of Eurozone countries

In order to avoid misunderstanding: results should not be understood as saying that Southern European countries did not have to go through austerity so as to return to sustainable government finances. They had to do so. The conclusion is that the timing and the intensity of the austerity programs have been dictated too much by market sentiments of fear and panic instead of being the outcome of rational decision-making processes.

## ***4. Ageing and debt sustainability: a long term perspective***

The second stream of research of the Beldebt project relates to population ageing. This long term trend affect debt sustainability in two ways. Directly, by increasing government expenditure, through raising health care and pension costs, and by lowering income tax, as share of population working and paying taxes declines. But also indirectly in different manners.

On the one hand, pension systems can have an impact on capital accumulation and hence growth, affecting sustainability of debt. In this respect the EMU membership generates additional macroeconomic transmission channels relative to the standard model for stand-alone countries. Moreover, when talking about debt sustainability and ageing implicit debt should be taken into consideration.

On the other hand, when the share of the working age population fall, also private savings tend to fall as propensity to save falls with age. Falling savings translate into deterioration of the current account, which in turn can have a negative effect on the debt sustainability. This can indeed result in growing foreign debt, which may deteriorate sustainability (see Gros 2013) and higher volatility in the costs of borrowing. This idea is supported by the fact that since the start of the crisis in the euro area the importance of domestic savings, and more in general of the external position of a country as lender or borrower, has been stressed as playing a in avoiding major market pressure in times of crisis. Despite high public debt level, Belgium was shielded from financial market pressure on refinancing costs possibly due to its healthy external position and high private savings. In fact, no European country with a consistent pre-crisis current account surplus has found itself in trouble in relation to continuous financing of sovereign debt.

More specifically, a demographic transition and population ageing both affect households' savings behaviour (which is by nature related to the life cycle) and thus the current account balance of a country. Alcidi et al (2014) show that some evidence exists that with the onset of a fall in fertility the percentage of population with the highest propensity to save first increases and then, as the fertility rates stabilize, falls to a lower level. It is at that point that the impact of increased longevity becomes more pronounced. However before this point, the savings of the countries are expected to increase as effect of a large share of population belonging to age class characterized by a high propensity to save. At the same time, lower (possibly negative) population growth of the population in working age will also lead, *ceteris paribus*, to lower growth and thus lower investment needs. This implies that, depending on the stage of the demographic transition of Belgium, the ongoing ageing process might lead to an improvement (savings increase, investment falls) in the current account.

#### ***4.1 Demographic transition and households' savings in Belgium***

Alcidi et al. (2014) propose to map out the likely time path of the impact of demographic transition on households' savings which is one of the components of the current account and hence gives indications about its future evolution. Belgium's current account used to be in substantial surplus, but looks on a deteriorating trend. Looking at saving developments allows to address the question of whether, *ceteris paribus*, Belgium should expect to pay higher or lower cost to re-finance its debt in international financial markets due to the effect of ageing on the current account.

There is ample literature on household life-cycle saving's behaviour, however not the impact of an ageing population on aggregate household savings. Using income and consumption survey data for Belgian households by age groups published by the federal statistical office of Belgium publishes and Eurostat population forecast, the paper

investigates to what extent demographic change influences the household savings rate in Belgium altering the relative size of different age groups with different savings propensities.

Belgium's relatively (to its EU competitors) favourable demographic outlook results in limited pressure on savings. The direct demographic effect reduces the overall household savings rate by 1.1 percentage points to 12.3% from 13.4% by 2035, thereafter stabilizing as the baby-boomers drop out of the statistics.

Similar exercise is also done for Germany. Germany represents an interesting case for comparison as it is another EU country having a high households saving rate while facing far severer demographic challenges. Despite the saving rate is lower, Germany's trend does not look worse than the Belgian one, due to the fact that household savings decrease less drastically with old age. For this reason, the overall decline is estimated at 0.9 percentage points, from 11.0% to 10.1% by 2035.

Overall, the analysis suggests modest long run effects, for both countries and the effects on savings stemming from changes in the overall household savings rate are unlikely to be a major problem in comparison with other challenges faced with regard to population ageing.

## ***5. Pension systems & macro-challenges***

### ***5.1 A theoretical macroeconomic analysis of a decline in fertility when pension schemes are of defined-benefits and defined-contributions types***

Population ageing is a world phenomenon of our times and also affects developing countries. According to the UN Population Statistics, the median age was estimated at 28.5 years in 2010 up from 21.5 years in 1970. In the more developed regions, the median age has increased from 30.6 to 39.9 years since 1970. Although longevity rises almost everywhere in the world, most of the observed ageing is accounted for by the decline in the fertility rate in the world including in the advanced countries (Weill, 1993). It will remain to be so until the death of all generations of the post-war baby boom.

Fertility is at the centre of analysis of growth theory. Before the Industrial Revolution, increasing population prevented individual living conditions from improving, which made lives miserable and short. Economic development was trapped in the Malthusian vicious circle. Due to the limited availability of natural resources of the then agrarian economies, living conditions were doomed to deteriorate whenever the stock of population happened to increase. Since the Industrial Revolution and the demographic transition, the size of the population stock is no longer a barrier to economic development as long as the income growth rate is higher than the population growth rate. Therefore, a decline in the fertility rate is good news for economic growth and individual welfare.<sup>6</sup>

However, a high fertility rate is desirable to guarantee the sustainability of the pay-as-you-go (PAYG) pension systems that most European countries introduced in the XX<sup>th</sup>

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<sup>6</sup> In the Solow growth model, for instance, a decrease in the exogenous fertility rate yields a higher income per capita.

century. Therefore, the decline in the fertility rate that has been observed as from the 1960s in Western countries has made the financing of pensions more difficult.

This paper aims at examining this macroeconomic trade-off implied by a decline in the fertility rate. It does so by considering two types of PAYG pension systems: a defined-benefits (DB) and a defined-contributions (DC) pension schemes. In the first scheme, the level of pension is guaranteed to the retirees while the financing cost adjusts to the demographic fluctuations. In the second scheme, the contributions paid by the active population are guaranteed while the level of pension adjusts to the demographic fluctuations. In the system of private pensions, there has been a general shift from a DB to a DC pension scheme when the fertility rate started to decline. In the public sector, the pension scheme has remained of DB type. The main results of this paper can be summarized as follows:

- The explicit debt and the implicit debt, financed by domestic residents, have the same macroeconomic effects. This is a replication of the result found by Belan and Pestieau (1999) and Fenge (1995).
- The effect of a decline in the fertility rate on capital accumulation in a model with DC pension schemes is clearly positive while it is ambiguous with DB pension schemes.
- The welfare effect of a decline in the fertility rate is ambiguous with both types of pension schemes.

## *5.2 A theoretical analysis of the combined effects of capital mobility and various pension systems across countries on income levels and individual welfare*

The European economic integration has involved countries with different pension systems. These pension systems differ in two main dimensions: the degree of funding pensions (fully-funded or PAYG) and the regulation of retirement age (flexible or fixed). The Maastricht Treaty imposed a maximum of 3% for the public deficit and 60% for the public debt but did not touch upon other forms of debt, namely, the implicit debt, i.e., the accumulated rights to pension of the retirees. Yet, the implicit debt has also macroeconomic effects. The effect of funding pension (fully-funded or PAYG) has been widely studied in the literature and has been shown to be similar to the effect of the explicit debt in case of an economic integration: capital flows from countries with sound public finances to indebted countries. What has not been studied in the literature is the impact of the timing the retirement age when economies integrate. This is precisely what Artige et al (2014) deals with. This research question is motivated by the differences in the retirement ages across countries. In Europe, for instance, the effective age of retirement is 63.5 in the UK, 64.9 in Ireland, 60.1 in France and 61.3 in Italy (EC 2013). It appears that the effective retirement age is lower in countries with pay-as-you-go pension systems than in countries with fully funded systems. At this stage it is important to clarify the definitions of retirement age. One generally distinguishes three definitions of retirement age: the optimal or flexible age, that is, the age at which individuals would choose to retire if they were subject to no distortion; the statutory age (also called pensionable age) which is the age at which a person is expected or required to cease work and at which he is entitled to full pension benefits; and then there is

the effective age of retirement which most generally is below the statutory age of retirement and below the optimal age of retirement. In this paper, it is assumed that the effective age of retirement corresponds to an early age of retirement - early because it is generally estimated as below the optimal age of retirement. This paper focuses on the effect on saving of early retirement age when the economy is closed and when the economy is open to capital flows. Two main results can be highlighted from this paper:

- In autarky, early retirement implies that an economy with a pay-as-you-go system will save more than in the same economy with optimal age retirement. In other words, early retirement reduces the negative effect on saving of the unfunded scheme of pensions.
- In an open economy, since countries with early retirement exhibit higher saving, capital will move from countries with early retirement to countries with optimal retirement. Therefore, a country with a pay-as-you-go pension system and optimal retirement will benefit the most from the economic integration. Since most countries with pay-as-you-go systems in Europe exhibit early retirement, the paper concludes that these pay-as-you-go pension systems do not generate a capital inflow as large as one could think.

To conclude, the timing of retirement is as important as the degree of funding of the pension scheme to explain the magnitude of capital flows in an economic union. The later the retirement age and the lower the degree of funding, the more the country will benefit from economic integration in terms of capital inflows. The lower the retirement age and the higher the degree of funding, the larger the capital outflows will be for this country.

From a policy viewpoint the main implications of this paper is to qualify the debate on the cost and the benefit of forming an economic union. For long, the emphasis has been on the level of both explicit and implicit debts of a country including the extent to which its social security is unfunded. Here it is shown that early retirement can in part compensate for the PAYG negative effect on saving.

## ***6. Measuring implicit debt: alternative approaches***

There are two types of debt: an explicit debt, which comprises private and sovereign debt, and an implicit debt, which refers to the accumulated pension rights that must be paid to retirees. Both types of debt represent a threat to the sustainability of public finances. Explicit debt has worsened after the financial crisis and the implicit debt is increasing with the expected ageing of the population.<sup>7</sup>

### ***6.1 A measure of the implicit debt in Belgium and in its regions based on the generational accounting method***

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<sup>7</sup> The research output from the scholars of HEC-University of Liège mainly covers the implicit form of debt at the regional, national and European levels.

Since the financial crisis turned into a sovereign debt crisis, fiscal imbalances are at the centre of the public debate. With a fiscal deficit and debt level forecasts of respectively -3.1% and 100.5% for 2012 Belgium is not an exception to this general picture. There is no doubt that these figures deserve attention. But an exclusive and frenetic focus on these cyclical and short term problems threatens to conceal the long term picture of structural and long term fiscal imbalances. It is well known that the current deficit and explicit debt ratio only measure annual flows of expenditures and receipts. They ignore future liabilities such as future pension entitlements and health care costs which, due to an ageing population, are going to increase substantially in the near future. As an alternative or complementary way of looking at the fiscal stance of countries, Auerbach, Gokhale and Kotlikoff (1991) introduced the method of generational accounting.

Flawinne et al. (2013) derived generational accounts for Belgium using data of 2010, and can be considered an update for Belgium of earlier work by Dellis and Lüth (1999) and Stijns (1999). Some new elements and improvements are introduced. First, microdata and microsimulation models are used to derive gender specific age profiles of the most important taxes and benefits. Secondly, the relative contribution of the most important factors of long run unsustainability are determined by simulation of counterfactuals, such as the removal of initial debt, ageing or increased employment rates. For the latter microsimulation techniques are used. Finally, the paper disentangles Belgian generational accounts into regional accounts for Flanders, Wallonia and Brussels.

In line with other studies which investigate the long run sustainability of Belgian public finances (e.g. Saintrain 2010), the paper concludes that current fiscal policy, when confronted with the demographic change ahead, violates the inter-temporal government budget constraint. According to our calculations Belgium faces a long term structural deficit of 10.5% of future GDP. Contrary to what is often put forward in public debates, the current level of explicit debt only plays a minor role in explaining this sustainability problem. Ageing and the related increase in age related expenditures are the main drivers of the long run fiscal imbalance and the high level of implicit debt. Only 13% of the sustainability gap can be attributed to explicit debt, whereas 75% of the challenge is due to ageing.

The regionalized generational accounts revealed that lower participation rates and higher unemployment in Wallonia translate into an average Walloon new-born to receive almost three times as much from the government than an average new-born in Flanders. In Brussels, a more favourable demographic outlook compensates an equally adverse socio-economic situation. Although at first sight, demographic changes and ageing might have more challenging budgetary repercussions in Flanders, our simulations showed that regional differences are to found primarily in the age-profiles, reflecting wide differences in the regional socio-economic situations.

As pointed out by Haveman (1994), the method of generational accounting has some major drawbacks. The results are obtained in a purely arithmetic framework, which means that, unlike in a genuine economic model, no economic interactions are taken into account. The methodology only summarizes the combination of current budgetary and social policy with future demographic evolution in an accounting framework. Therefore, the results presented in this paper should not be read as a 'prediction'. Indeed, it is impossible to know with certainty whether both current policy and the economic environment will change in the years, let alone decades, ahead.

The paper is even more firm in our warning not to interpret these results as pointing towards intergenerational injustice. For that purpose one needs an elaborated normative framework to trade-off welfare between different generations. Economic growth, further increases in longevity and uncertainty are but some elements which make this framework far from obvious and certainly beyond the scope of this paper. However, these caveats do not make our calculations of generational accounts less valuable. They can serve as an indispensable input to these other models, and feed an informed normative debate. Moreover, these results should help to advocate a shift of attention of policymakers from the current short term deficit to the real long term structural challenges.

## **6.2 *An estimation of the implicit debt in Belgium based on microsimulations***

The expected net value of pension rights accumulated by the Belgian population under public pension schemes is part of each individual's wealth in spite of its intangible nature.

Also called Social Security Wealth (SSW)<sup>8</sup> once aggregated at the country level, these pension entitlements correspond exactly to liabilities accumulated by public pension schemes. However, in spite of the legal and binding nature of pension liabilities, the burden of this implicit debt is neither reported in national accounts, nor is part of the public debt, to which in fact they belong.<sup>9</sup> To fill this lack of information, some studies have already estimated the aggregated value of SSW for Belgium, but so far computations were done solely on the basis of average pension benefits (Perelman, 1981, and Bouillot and Perelman, 1995). Decoster et al. (2013a) estimate the SSW for Belgium once again, but using a representative sample of approximately 3% of the whole Belgian population on 1st January 2002. The dataset was obtained from individuals' pension record files and contains detailed information on personal characteristics and earnings histories. In some way, this paper is an extension of Jousten et al. (2012), in which the authors reported the expected impact of pension reforms using the same dataset and pension calculator. However, in this study the emphasis is on the distribution of pension rights and its main drivers across successive age cohorts and pension schemes, placing a particular interest on gender differences.

For this purpose, a computer code, PENSALC, is developed. It computes accrued-to-date pension benefits for future pensioners at the individual level, applying the computational and eligibility rules fixed by each pension scheme.<sup>10</sup> This code also computes benefits for individuals with mixed careers, i.e. those cumulating rights in several pension schemes. Assuming a fixed retirement age at 65 for men and 62 for women,<sup>11</sup> and using the pension rights derived from PENSALC, the actuarial expected value of pension entitlements for future pensioners are estimated. For current ones, the same approach is followed and the actuarial value of future entitlements is computed based on the observed amount of current benefits.

The main results of this paper can be summarized as follows:

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<sup>8</sup> Denomination introduced by Martin Feldstein (1974).

<sup>9</sup> Regularly, the Belgian Study Committee on Ageing (2012) publishes updated long-term projections of Social Security accounts, including the cost of pension schemes. In these projections, the annual flow of future pension liabilities relies on average individual pension benefits by scheme.

<sup>10</sup> See Jousten et al. (2012).

<sup>11</sup> The normal retirement age for women has been gradually increased from 60 years old in 1997 to 65 in 2009. It was set at 62 in 2002.

- It appears that SSW inequality is high among women, but also at ages close to retirement for both genders. It also emerges that the individual career characteristics, as well as the rules fixed by each pension scheme for the computation of benefits, play a key role as inequality drivers. Nevertheless, when the distribution of pension entitlements are compared to the distribution of disposable income, it appears that they are very close to each other, even if SSW seems to play a clear redistributive role. A possible interpretation is that if Belgian public pension schemes are redistributive in despite of their Bismarkian nature. This is mainly due to the role played by the minimum and maximum thresholds in the benefits computations.
- At the national level pension liabilities represent close to 180 % of GDP (in 2002). This amount varies on behalf of key hypotheses made about expected growth rate of pension benefits or the discount rate applied in computations. Nevertheless, it is not a real surprise when it is compared with the projections made every year by the Belgian Study Committee on Ageing (2012). In the last projection, the burden of public pensions in GDP is expected to grow from 9.9 % in 2011 to 14.7 % in 2050.
- Finally, it is shown how this implicit debt is distributed among pension schemes and regions. It appears that Brussels faces a relatively favourable situation with a low share of total pension liabilities compared with its contribution to national GDP. This is not the case in the other two regions, particularly in Wallonia which presents a high unbalanced situation, totalling 31.5 % of total SSW while representing only 23.4 % of Belgian GDP. Flanders, in spite of a life expectancy nearly three years higher than in Wallonia, faces a relatively favourable situation, 60.2 % of total SSW and 57.3 % of total Belgian GDP.

## ***7. Fiscal decentralisation and debt sustainability in Belgium***

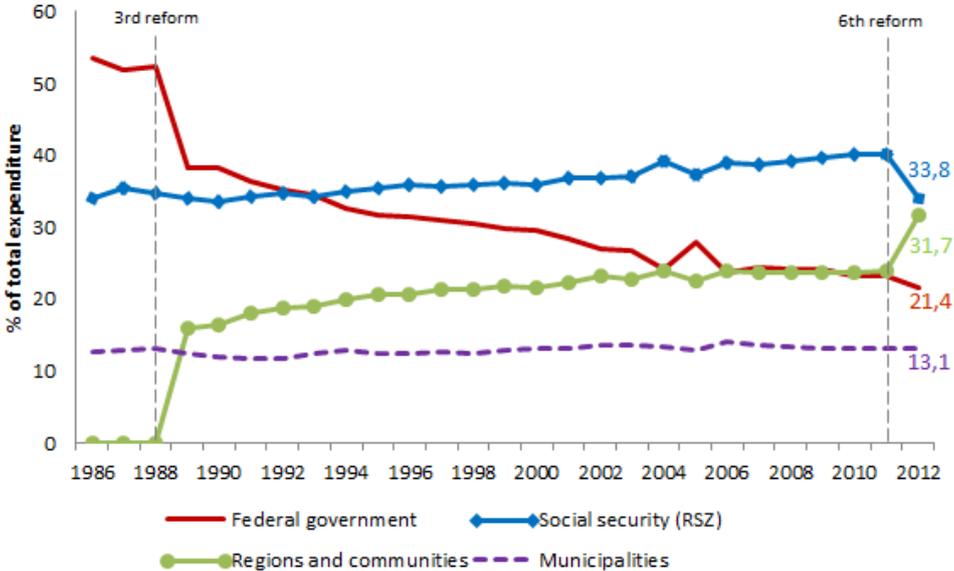
The third stream of research of the Beldebt project relates the features of the domestic institutional setting and, in particular, it assesses the effects of the Sixth State reform of Belgium. The effect of decentralisation on debt sustainability can be analysed in two ways. From a purely budgetary perspective, which ignores any second order, behavioural effects. Or, and in line with the literature on fiscal federalism, from an economic point of view where behavioural responses of politicians are taken into account. In what follows, these two avenues are considered and applied them to the case of the Belgian federation where possible.

### ***7.1 Budgetary impact and the sustainability gap***

When evaluating the sustainability of total debt held by all levels of governments within a federation, the extent to which these different levels have diverging sustainability gaps is what should be looked at first. As is well known, in order to meet its inter-temporary budget constraint, a government needs to have sufficient fiscal manoeuvring space at its disposal. Raising taxes or cutting expenditures keeps the sustainability gap within bounds, and by

consequence keeps the debt from snowballing.<sup>12</sup> Now, whilst this is the case for any regular (unitary) country, in federations this becomes rather more complex. Indeed, e.g. in Belgium the federal level bears the brunt of the implicit and explicit debt, yet increasingly lacks the fiscal tools to tackle this issue. As the following figure shows, more and more functions have been devolved to sub-central levels over the years. The latest reform of state, depicted in the graph at year 2012 but in reality due for 2015, considerably speeds up this process. The federal state together with social security services (which combined, are referred to as 'entity 1' in the Belgian federal constellation), will only be responsible for 55.4% of total government expenditure after the reform.

FIGURE 1: SHARE IN NATIONAL EXPENDITURE (IN %) PER LEVEL OF GOVERNMENT



As Saintrain (2010) recently showed, a budgetary transfer from the federal to the regional level of 10 billion € in 2015 will push the sustainability gap of the federal government from 35% to a staggering 50% (in terms of federal primary expenditures). This makes the sixth reform of state, which has regional budgets increase with 20 billion €, seem rather challenging to federal public finances to say the least. To keep the federal debt sustainable in other words, severe measures will have to be taken. For every 10 billion € transferred to the regional level as Saintrain calculates, the federal sustainability gap will have to be reduced by 1% of GDP to keep it fixed in terms of federal expenditure.

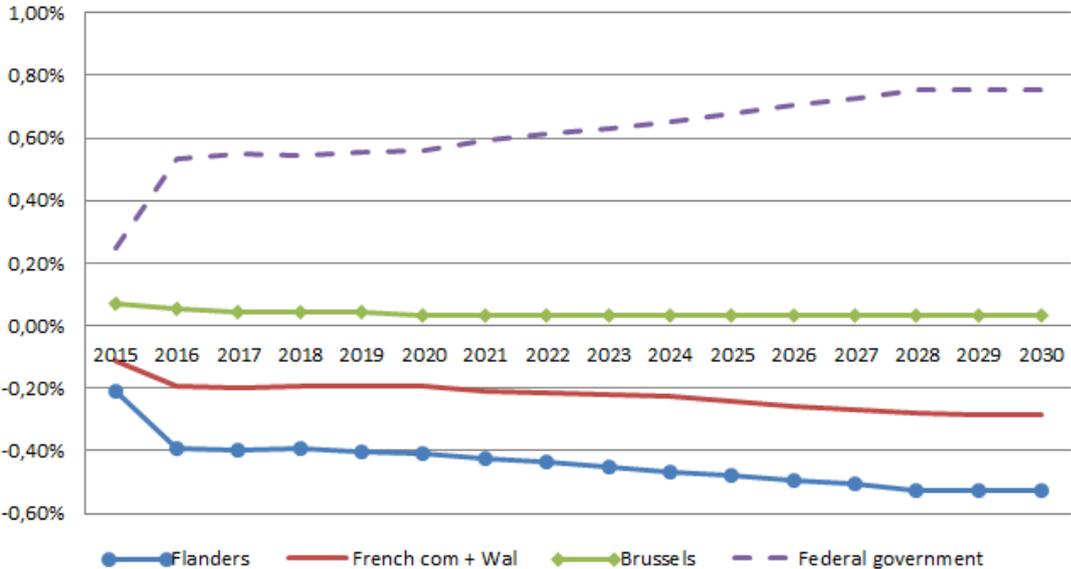
Such a reduction can be achieved in three ways. First of all, the regions can simply take on part of the federal debt as they receive more functions. Second, part of the federal deficit could be 'decentralised' as well, by simply underfinancing functions to be transferred. Lastly, decentralisation could focus on functions with a higher ageing cost, so that the regions

<sup>12</sup> The sustainability gap, under the name of the 'S2 indicator', is also used by the European Commission when sizing up the sustainability challenges faced by member states. See e.g. the 'Sustainability report' of DG ECFIN (2009), where the criterion is defined as follows: 'the S2 indicator shows the durable adjustment of the current primary balance required to fulfill the infinite horizon intertemporal budget constraints, including paying for any additional expenditure arising from an ageing population.'

partake in the implicit debt as well. The sixth reform of state has embraced the latter two routes, rather than taking on the rather politically tainted question of how to split up the federal debt. New regional functions will thus be underfinanced, up to 2.4 billion € less a year from 2016 on. Starting from 2017 moreover, growth rates of several grants will be set lower than they already were, only to be nudged up again when growth surpasses 2.25% annually. And lastly, pension finance for regional officials which is now still a federal responsibility, will gradually be fully devolved to the regional level by 2028.

But will these measures do? Employing the arithmetic simulation model called SAFIRE (Simulation and Analysis of the Financing of the Regions, see also Decoster and Sas (2012 and 2013), Decoster and Sas (2013b) simulate the difference in total budgetary outcome between the old and new system. The following figure plots the results, where a line above the X axis stands for a gain compared to the old system, and this in GDP terms.

FIGURE 2: GAINS/LOSSES UNDER NEW FINANCING LAW (IN % OF GDP)



It appears that the reform indeed alleviates the fiscal position of the federal level, which gains almost 0,8% of GDP by 2030. Yet since the total budgetary transfer to the regional level mounts up to a total of 18,9 billion € in 2015, and in light of Saintrain’s result of a necessary decrease of 1% of GDP of the sustainability gap for each 10 billion, the reform may yet fall short. However, looking at the sustainability gap of entity 1 as a whole, Saintrain finds that already a reduction of 0,5% per 10 billion € would fit the bill. Also, since one of the functions devolved to the communities is care for the elderly, and since regional governments will have to support their own pensioners, the burden of the implicit debt will also be shifted. This needs to be taken up in the sustainability gap calculations, to pass a final verdict.

Looking at the revenue side of things lastly, a quarter of the personal income tax (raking in almost 12 billion €) will also be decentralised to the regional level as from 2015. This further reduces the fiscal manoeuvrability of the federal government, yet may also play to its advantage. In line with the findings shown in Decoster and Sas (2012), the elasticity of the personal income tax drastically defines the outcomes. The lower this elasticity, the higher the gains for the federal level since it will lose less of its elasticity bonus in the future. A setting

which seems likely, since it would result from the lower tax burden on labour for which calls now seem to resonate across the entire political spectrum.

## **7.2 *The Political Economic analysis of decentralisation and debt sustainability***

In order to study the sustainability of the consolidated public finances of an entire federation, the effect of political behaviour cannot be omitted. This behaviour will be different compared to a unitary setting, since in a federation politicians on each tier of government will interact in specific ways. Aside from other aspects, this often strategic interaction between (and within) levels of government is studied by the literature on 'fiscal federalism'. To this respect, two topics of this literature are touched upon and translated to the Belgian Case.

### **7.2.1 *Why commuting matters: vertical and horizontal tax externalities in a federation***

When taxation is decentralised, this has an effect on regional policy making. When regional politicians only look at the welfare of their own citizens, they overlook the effects of taxation on citizens living in other regions of the federation. They thus behave as Nash competitors, taking the policies of other governments as given.

In the case of tax base mobility between states, positive horizontal externalities then drive the outcome where regional taxation as well as public provision is set inefficiently low. Tax competition leading to a 'race to the bottom' scenario is often given as the textbook example here, although other forms of tax exporting exist. When tax bases are co-occupied by federal and state governments moreover, vertical externalities enter the fray. Here the externality works through the effect on a shared tax base, which may contract due to increased state taxation so that federal tax revenues decrease as well. This negative externality is not taken into account by state governments, resulting in inefficiently high regional tax rates compared to the unitary country second-best optimum. The question then becomes which kind of externalities will gain the upper hand, and thus whether there will be over- or under taxation at the regional level. Indeed, in the latter case for example, the federal government would find it less of an issue to further tap the tax base in order to refinance federal debt or manage the sustainability gap.

Now, applying this framework to the Belgian federation may falsely lead to the conclusion that there is nothing to worry about. The taxes that are decentralised, the argument then goes, have highly immobile tax bases to begin with, and are very inelastic. Even the newly decentralised tax on labour income would not lead to horizontal externalities, since labour market driven mobility in Belgium is virtually inexistent.

Nonetheless, Sas and Decoster, (2013). argue that precisely by partially decentralising the labour tax, externalities and welfare losses will occur Not just because the tax base will be shared, which gives rise to vertical externalities, but also because horizontal externalities already emerge when workers simply commute. In such a common, national labour market wages are endogenously determined as commuting flows equilibrate wages across all states. Policy changes in one state will consequently be felt throughout the entire federal system through wage setting, even when household migration does not occur. Thus horizontal externalities are re-introduced in the analysis.

Looking at the Belgian federation, where 10% of the working population commutes across the borders of three small regions, a good case can be made for studying commuting flows from this theoretical perspective. First, a setting where an ad valorem residence based tax on labour income is fully decentralised is considered. This has lower-level governments set inefficiently low taxes. The strategic motive of state governments is not to attract more workers, but to boost labour supply of own residents and hamper labour supplied by non-residents, this by pulling down the national gross wage. When the labour tax base is co-occupied by the federal and state governments alternatively, either public under- or overprovision may occur. Our model identifies clear conditions for states to overprovide, i.e. for the overall fiscal externality to be negative. The higher the elasticities of labour supply and demand, the larger the number of states in the federation, and the larger the share of the federal government in the total tax rate, the more over taxation is expected at the regional level. Lastly, when states differ in terms of preferences and technology, an inflow of commuters will make it more likely for states to set taxes inefficiently low.

### **7.2.2 *Bailouts in a federation: a cooperative legislature at work***

Of course regionalised taxation, and its effects on federally held debt management, is but one side of the coin of fiscal autonomy. Equally important is the question how regional governments manage their own debts, when given the opportunity to borrow from financial markets. What is crucial here is the commitment of the federal government not to bail lower levels of government out when they find themselves in financial distress. If the federal government fails to commit to such a 'hard budget constraint' scenario, regional governments have an incentive to over-borrow. Regions or municipalities, by facing a 'soft budget constraint' and acting upon it, will thus undermine the sustainability of total, national public finances by piling up inefficiently high levels of debt.

Sas (2013a) revisits this soft budget constraint problem from a theoretical point of view, based on the assumption that insufficient attention has as yet been given to the specific dynamics of federal political decision making when studying the incentives at work. Consider e.g. the case of Belgium, where nationwide parties have long since disappeared from the political arena. As a result, the federal government can hardly be described as a single entity independent of state interests. Once parties win the election in their respective state and find themselves in the federal coalition, they will always defend the interests of those that will keep them there: the voters of their own state. Indeed, one can even question whether any federal government is ever exclusively above regional interests to consider the national good (and/or assure certain re-election in the process).

In the inter-temporal model, this kind of federal political decision making are introduced by use of the citizen-candidate model of Besley and Coate. A cooperative legislature of locally elected representatives thus decides on federal grants going to the states. Each state of the federation marks a constituency, from which one candidate is chosen to represent this respective state in the federal legislature. Representatives then come together in a federal legislature, and start bargaining on public spending based on their personal preferences. Their behaviour at this point is described by the utilitarian bargaining solution, which means they will agree to a specific allocation which maximises their joint surplus. Such a Utilitarian solution is motivated by the literature on universalism in legislatures (see Weingast, 1979). This makes it a truly cooperative legislature. The election process is then set up as a

Stackelberg game where voters take into account this behaviour of legislators, and vote accordingly by picking that citizen from their ranks whose preferences maximise their welfare. Hence the name of the model, each citizen is a potential candidate for federal office.

As a result, voters will elect federal candidates in favour of looser state public spending than they would have otherwise preferred in a unitary country. The reason is simple. By voting in a politician who does not object to his own region's borrowing, and who will gladly tap the common national pool of revenues to finance this borrowing, voters secure more generous bailout support when in trouble. Once in office, these federal representatives will haggle over favourable bailouts for their own region, resulting in an outcome where the common pool is overfished. Yet this strategic voting not only leads to overly generous bailout policies. Also, and compared to a setting where federal decision making follows the median voter, states are proven to over borrow more inefficiently because of this federal generosity. A case can then be made for federal constituencies where politicians are elected from across the entire federation, which would neutralize these additional inefficiencies.

## ***8. Conclusions and policy challenges for Belgium***

The objective of this project has been to address the main challenges of the Belgium's public finances considering their regional, national and European dimension. Macroeconomic conditions combined with reforms towards fiscal federalism and the EMU membership, with its baggage of rules and possibly negative spillover effects, matter for debt sustainability, with population ageing providing a continuing background challenge.

Overall the research, which often addresses broad issues that need to be adapted to the case of Belgium, and the policy discussion around the project pointed to three main risk factors: macroeconomic risks of short to medium- term nature mostly related to the EMU membership, long-term risks linked to an ageing population and political risks also linked to the institutional setting.

For countries with large sovereign debt or which the financial structure (mostly banks) may represent a risk for sovereign debt financial markets tend to be more volatile. This is particularly true for countries whose debt is largely held by non-resident and for countries member of the EMU. Indeed, the cost of refinancing foreign debt (in international financial markets) tends to be more volatile carrying higher risk of liquidity shortage and crisis. This aspect is particularly relevant in a monetary union, where the likelihood of liquidity risk can turn into a default risk is much higher.

The EMU is different from a stand- alone country with monetary sovereignty. Both theory and empirical findings support the hypothesis of multiple equilibria. Multiple equilibria imply that a liquidity crisis can turn into solvency crisis, even when fundamentals suggest otherwise, driven by market believes and policy makers' incentives to choose default, given that debt cannot be inflated away.

In line with the multiple equilibria hypothesis, empirical findings also suggests that in a monetary union macroeconomic fundamentals matter in a different way than in stand-alone countries. In times of crisis they tend to matters less than markets sentiment and this is a source of fragility for the EMU.

The crisis also showed that the external position of a country tends to matter a lot in the euro area. This can be read as a consequence of the fact that markets tend to value the capacity to finance debt internally. Belgium is a natural example of it. Its large creditor external position and the current account surpluses are most likely responsible for keeping Belgium sheltered from a sovereign debt crisis. This has two important implications. A deteriorating current account, signalling both falling savings and competitiveness, could be seen as a leading indicator of future market risks. Second, while fiscal consolidation policies have not delivered the expected effects all across the euro area, indeed there is evidence they led to recession and hence in the short term increasing debt-to-GDP ratio, they are key for the external adjustment. Fiscal consolidation has a direct impact on absorption, which translates into falling imports and hence reduces current account deficits. In several euro area countries this has worked in the direction of slashing liquidity concerns.

In more long term perspective, ageing of population while is definitely a success for society, it is the great challenge for public finances and definitely a major source of risk to public debt sustainability. Such a risk has different dimensions. The first one includes the effect of an ageing population on the current account through savings. There are also others ranging from the increase of public expenditure through health care and pension expenditure, to the effect on capital accumulation and hence growth, to the impact of different pension systems without forgetting that a correct measure of the debt should include also implicit liabilities.

From a policy perspective, in the case of Belgium, where ageing is the result of longevity rather than fall in fertility, but given the stock of debt (especially when implicit debt is taken into account) and the existing pension system, current commitments cannot be kept under unchanged policies. It can paradoxically happen that expenditure for pension keeps increasing even if pensions do not increase because the number of retirees continues to increase and/or contributions from young workers do not offset such increase. Changing policy requires to take into account both equity and efficiency. In this perspective, raising retirement age along with longevity is a necessary step. This should be combined with measures aiming at fair treatment across the three different pension systems (de facto three, namely for self-employed, employed and civil servants) but also targeting the generalized implementation of second pillar schemes to offset declining payments coming from the state.

In this respect, as well as in many others, the division of powers among the different levels of government matters. With the Sixth reform of the Belgian State, the most important investment expenditure powers have been transferred to regions while the federal government kept current expenditure. This occurred in a context of debt unsustainability and it is unlikely that such new setting will contribute to improve the fiscal consolidation effort.

Overall, due to the large stock of debt, both explicit and implicit, Belgium will be called to face significant challenges. These require implementation of important policy changes. Nonetheless, the country still enjoys features, like abundant savings and still favorable fertility rates, which make it a fairly good position relative to other European fellows. It will be important to keep such relative advantages. Additional challenges may emerge from the institutional setting which may become a source of political risk, especially if changes are driven only by political or even emotional considerations.

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