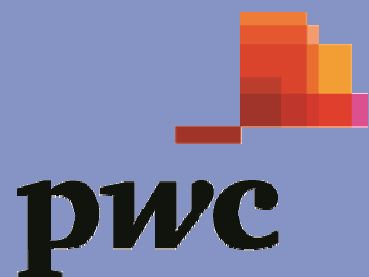




# Ex Post Evaluation of the Macro-Financial Assistance to Serbia

*Final Report*



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## **Abstract**

The ex-post evaluation of the Macro-Financial Assistance (MFA) to Serbia assesses the effects of the MFA on the macroeconomic stabilisation and structural reforms in the recipient country. The Macro-Financial Assistance (MFA) to Serbia was awarded in 2009 to alleviate the country's external financing difficulties, in the form of a loan conditional on the implementation of specific policy conditions. The loan was disbursed by a single tranche of EUR 100 million in 2011. The present report presents the macroeconomic context of the operation, assesses the macroeconomic impact of the MFA, the implementation of structural reforms in line with the MFA policy conditions, the evolution of the external financial sustainability indicators of the Serbian economy following MFA, the interaction of the MFA with the other components of the international financial assistance to Serbia, and the added value of the MFA with respect to the latter. The evaluation findings are based on the interviews with Serbian officials, representatives of international financial institutions and of the European Commission, the results of the Delphi analysis, a review of the documentation relevant to the operation and macroeconomic modelling. The study presents and summarizes the results of the evaluation and draws recommendations for future operations.

L'évaluation ex-post de l'Assistance macrofinancière (AMF) à la Serbie évalue les effets de l'AMF sur la stabilisation macroéconomique et les réformes structurelles dans le pays bénéficiaire. L'Assistance macrofinancière (AMF) à la Serbie a été accordée en 2009 pour atténuer les difficultés de financement extérieur du pays, sous forme d'un prêt conditionné à l'adoption de conditionnalités spécifiques. Le prêt a été versé en une seule tranche de 100 millions d'euros en 2011. Le présent rapport présente le contexte macro-économique de l'opération, évalue l'impact macroéconomique de l'AMF, examine la mise en œuvre des réformes structurelles en lien avec les conditionnalités de l'AMF, l'évolution des indicateurs de solidité financière extérieure de l'économie serbe suite à l'AMF, l'interaction de l'AMF avec les autres composantes de l'aide financière internationale à la Serbie, et la valeur ajoutée de l'AMF à l'égard de celle-ci. Les résultats de l'évaluation sont basés sur des entretiens avec des responsables serbes, les représentants des institutions financières internationales et de la Commission européenne, les résultats de l'analyse Delphi, l'examen de la documentation relative à l'opération et la modélisation macroéconomique. L'étude présente et résume les résultats de l'évaluation et tire des recommandations pour les opérations à venir.

## **Glossary of terms**

EU – European Union

DG ECFIN – Directorate General for Economic and Financial Affairs of the European Commission

FDI – Foreign Direct Investment

FDR – Fiscal Deficit Rule

IMF – International Monetary Fund

IPA – Instrument for Pre-Accession

MFA – Macro-Financial Assistance

MoU – Memorandum of Understanding

NBS – National Bank of Serbia

PIFC – Public Internal Financial Control

PIO – Pension & Disability Insurance Fund of Serbia

SBA – Stand-By Arrangement

WB – World Bank

## Executive summary

The Macro-Financial Assistance (MFA) to Serbia was awarded by the Council of the European Union Decision 2009/892/EC on the 30 of November 2009. The 2009 – 2011 MFA was the third provided to Serbia since two MFA operations had already been undertaken in 2001 – 2002 and in 2002 – 2006 to the benefit of Federal Republic of Yugoslavia and State Union of Serbia and Montenegro respectively, entities of which the Republic of Serbia was constitutive at these periods.

The decision to grant the Macro-Financial Assistance 2009 – 2011 was linked to the International Monetary Fund (IMF) financial assistance to Serbia. The MFA Memorandum of Understanding states that disbursement of funds in the framework of the MFA operations is conditional to the satisfactory track record in the implementation of the ongoing Stand-By Arrangement referring to the 2009 – 2011 SBA). Another pre-criterion to disbursement was a positive evaluation, by the European Commission, of the progress made in the implementation of structural reforms. In addition, the MFA was conceived to be complementary to the IMF and World Bank funding, and the volume of funds for the MFA was determined based on the IMF forecasts of the Serbian economy's needs.

The 2009-2011 Macro-Financial Assistance was awarded in the form of a loan facility of EUR 200 million. To meet this obligation, the Commission was authorized to borrow up to EUR 200 million on the capital markets or from financial institutions.

The MFA operations were expected to be disbursed in two instalments, of EUR 100 million each, taking place over a two-year period. The Memorandum of Understanding was signed on the 5th of July 2010 and the Loan Agreement was signed on the 17th of December 2010, it entered in force on the 12th of April 2011.

On the 15th of April 2011, Serbia submitted to the European Commission a request for the release of the first MFA instalment, accompanied by a report on the fulfilment of the structural reform criteria conditional to the first tranche. Upon fulfilment by Serbia of the conditionalities included in the Memorandum of Understanding, the first instalment of EUR 100 million was disbursed on the 15th of July 2011.

The second tranche was not disbursed because the IMF programme was not on track any more by the end of 2011 and because Serbian financing needs sidestepped. The MFA expired two years after the signature of the Memorandum of Understanding.

The objective of this report is to present our findings from the evaluation of the MFA support operations to Serbia.

Our report is structured in the following manner:

- First, we present the macroeconomic context against which the MFA operation was approved. This allows us to gain an understanding the problems and the needs of the Serbian economy pre-2010, the rationale for the MFA and IMF interventions, and the evolution of the Serbian economy post MFA and IMF support operations. This, in particular, allows us to assess the relevance of the Macro-Financial Assistance's financial design and policy requirements.
- Second, we assess the macroeconomic impact of the MFA on the Serbian economy through a two- step process:

- We examine the macroeconomic evolution of Serbia between 2010 – 2012 in order to identify a range of possible impacts of the MFA and assess the extent to which the macroeconomic objectives of the MFA were attained;
- We conduct a counterfactual analysis seeking to identify the net impact of the MFA and IMF interventions on the Serbian economy; and

This assessment of the macroeconomic impact of the MFA on the Serbian economy helps us assess the **effectiveness** of the MFA operations as well as the **impact** of the MFA to the Serbian economy.

- Third, we address the question of the structural reforms implemented following the policy conditions formulated in the Memorandum of Understanding (MoU) of the MFA. This task has two components:
  - We examine the effectiveness and the modalities of implementation of the structural reforms related to the policy conditions laid out in the Memorandum of Understanding. Based on this, we assess the relevance of the policy conditions and the impact of the corresponding structural reforms for the Serbian economy; and
  - We address the question of whether the corresponding structural reforms would have been implemented in absence of the MFA, thereby assessing the impact on the Serbian Economy.
- Fourth, we examine the external financial sustainability indicators of the Serbian economy and study the impact of the MFA on these indicators.
- Fifth, we address the question of interaction of the MFA with the other components of the international financial assistance to Serbia, in particular the Instrument for Pre-Accession (IPA) provided by the European Union, the IMF SBA 2009-2011 and the World Bank budget support programmes.

This allows us investigating the potential complementarities or redundancies across the MFA and the programmes mentioned and ultimately inferring the added value of the MFA with respect to these programmes, in particular the IMF programme.

- Sixth, we summarize our evaluation findings and present recommendations for future MFA operations.

Our evaluation findings are based on the fieldwork in Serbia – with interviews with stakeholders from the Serbian government, international financial institutions and the European Commission – the output of the Delphi analysis, an extensive documentation review and economic modelling.

As a result, we are able, and draw conclusions regarding the effects of the Macro-Financial Assistance on the Serbian economy, the optimality of the MFA design, and added value with respect to the IMF, the World Bank assistance as well as EU assistance through IPA.

The aim of the MFA was to provide funds in order to cover the external financing needs of the Serbian economy while ensuring – through appropriate policy conditions – the implementation of structural reforms which would help Serbia achieve medium and long term fiscal sustainability and align its internal financial control on the European Union standards.

From the short-term macroeconomic stabilisation point of view, the MFA and the IMF financial assistance helped preventing the Serbian economy from slipping into a major economic crisis that was not excluded in 2009-2010. The MFA short-term macroeconomic objective of stabilizing the Serbian economy was therefore effectively attained. However the Serbian fiscal and external financial situation remains fragile and subject to numerous risks and challenges. The net contribution of the MFA loan to the macroeconomic stabilization of the Serbian economy, as our counterfactual analysis shows, is likely to have been very limited situating in the range from 0 to 0.05% of GDP loss in absence of the MFA. The impact on the other macroeconomic aggregates is of similar magnitude. The macroeconomic impact of the IMF financial assistance, in its turn, is likely to have been substantial in 2010 (GDP up to 0.3% lower in absence of the IMF funds) and very close to zero in 2011. More important than the direct financial support was the signalling to private actors about the EU intention to help to Serbia in the face of adverse shocks.

Regarding the policy component, in October 2010 the Serbian Parliament voted a Law on Amendments and Addenda to the Budget System Law which formally fulfilled both of the MFA policy conditions: introduction of quantitative fiscal rules and adoption of provisions in the field of Public Internal Financial Control (PIFC) from the PIFC Policy Paper. The involvement of the EU through the MFA was instrumental in pushing for implementation of the measures described in the policy conditions. In absence of the MFA the implementation of these legal acts would probably have been made at a slower pace or even postponed.

The PIFC measures are part of a structural improvement of the Serbian public financial management and contribute to gradually absorbing the *Acquis Communautaire* in the pre-Accession perspective. As such, their implementation is impactful and useful and underlying MFA policy condition made a difference.

The fiscal rules had three components: a cycle-adjusted fiscal deficit rule, a debt rule and a set of indexation rules. Although made part of the Budget System Law in 2010, these rules made little difference to the Serbian economy: the actual fiscal deficits exceeded those fixed by the Fiscal Deficit Rule (mainly for reasons related to electoral cycle), the debt rule was largely breached in 2011 and 2012, while indexation rules – while formally respected – were overturned by ad hoc remuneration of public employees practices. However, the quantitative fiscal rules had the added value of introducing fiscal responsibility as one of the main targets of the economic policy.

Our case study dedicated to fiscal rules went further in investigating the impact of the fiscal rules for the Serbian economy. We show that the Serbian fiscal deficit has been largely structural implying that the fiscal deficit would not be eliminated if GDP growth resumes at its potential level. Serbian fiscal policy has been pro-cyclical in the two years immediately preceding the crisis which dried out the resources for a counter-cyclical response once the crisis occurred. The necessity to cushion the adverse effects of the crisis along with the upcoming elections was the reason why the fiscal rules were largely disregarded by the fiscal policy in 2011-12.

One of the key components of the fiscal sustainability of Serbia is pensions. The issue of the Serbian pension system organization, macroeconomic impact is investigated along with possible reform options.

During the evaluation, no unexpected effects of the MFA have been found.

An examination of the external financial sustainability of Serbia reveals that the country's stance is fragile and subject to numerous risks. Widening current account deficit requires capital inflows which can dry out quickly in the event of a financial



crisis. Very high euroisation of the economy exposes it to negative exchange rate shocks. Serbian external debt to GDP ratio has been stable over the period 2010-2012, but remains one of the highest in the region. The foreign currency reserves level, by contrast, is fully adequate and compares favourably to peer countries'. In the Serbian public debt to GDP ratio evolution in 2010-2012, primary fiscal deficit contribution was essential, along with the exchange rate dynamics. Regarding external debt sustainability, current account and capital account dynamics were the main drivers of the fall in the fluctuations of the debt-to-GDP ratio over the period. The MFA contribution to Serbian external financial sustainability was very modest: the gains from cheaper debt are real, but very modest and unlikely to make a difference over the long term. The involvement of the EU to support Serbia – including through MFA – and Serbia's commitment to implement the reforms associated with joining the EU were, however, considered important by the rating agencies with subsequent impact on the Serbian sovereign credit rating. This hints at the MFA exercising an indirect favourable effect, although the latter cannot be assessed quantitatively.

In respect of the design and implementation of the MFA, the terms and conditions and the volume of the MFA loan were fully adequate, although its efficiency for the Serbian economy would have probably been greater had the funds been made available more operationally. Regarding the articulation of the MFA with respect to the other financial assistance programmes, our findings show it was largely complementary to the IMF SBA. In addition, MFA provided a strong political backing for the implementation of the structural reforms agreed between the Serbian authorities and the IMF. The interaction with the Instrument for Pre-Accession also exhibited complementarities with little overlap. Overall, the greatest added value of the MFA with respect to the IMF and World Bank assistance was to provide a political backing for structural reforms within Serbia, and to inform the private economic agents about the EU commitment to support the country – in particular in the accession perspective – both within Serbia and outside.

In backward perspective, the MFA was clearly relevant to the Serbian economy needs. The macroeconomic stabilisation objective of the MFA has been reached, even though the MFA own contribution was very modest. In the structural reform area the MFA contribution was more important, but its effectiveness was only partial (fiscal rules breached) due to exogenous factors. The interaction with other forms of assistance and financial instruments exhibited a lot of complementarities, and the design of the MFA was broadly adequate. The added value from the MFA resides mainly in the political backing of structural reforms and market signalling.

Regarding financial assistance disbursement, the improvement would imply, on the other hand, faster MFA loan disbursement in order to provide MFA funds when they are needed the most and, on the other hand, discontinuation of the new instalments disbursement if during the MFA timeframe financial assistance is deemed unnecessary to ensure external financial sustainability of the recipient country in order to avoid potential windfall effects.

Regarding the policy component of MFA, the enhancement of the MFA mechanism requires, on the other hand, a focus on "quick wins" prior to the disbursement of the first instalment – in order to enable quick disbursement of the loan when it is needed – and, on the other hand, a requirement of sustained policy compliance with the legislation produced in line with the MFA policy requirements, so as to ensure the effectiveness of the structural adjustment.

## Résumé

L'Assistance macrofinancière (AMF) à la Serbie a été attribuée le 30 Novembre 2009 par la Décision 2009/892/CE du Conseil de l'Union européenne. L'AMF de 2009-2011 était une troisième à destination de la Serbie avec deux opérations précédentes d'Assistance macrofinancière entreprises en 2001-2002 et en 2002-2006 au profit de la République fédérale de Yougoslavie et de la Communauté d'États de Serbie-et-Monténégro respectivement, entités dont la République de la Serbie était constitutive à ces périodes.

La décision d'accorder l'Assistance macrofinancière de 2009-2011 était liée à l'assistance financière à la Serbie fournie par le Fonds monétaire international (FMI). Le Mémoire d'entente de l'AMF précise que la mise à disposition des fonds dans le cadre des opérations d'AMF est conditionnelle à la mise en œuvre satisfaisante des dispositions de l'accord de confirmation 2009-2011 avec le FMI. Une autre pré-condition de décaissement était une évaluation positive, par la Commission européenne, des progrès réalisés dans la mise en œuvre des réformes structurelles. En outre, l'AMF a été conçue pour être complémentaire de celle apportée par le FMI et par la Banque mondiale, et le volume des fonds pour l'AMF a été déterminé sur la base des prévisions du FMI des besoins de financement extérieur de l'économie serbe.

L'Assistance macrofinancière de 2009-2011 a été accordée sous la forme d'une facilité de prêt de 200 millions d'euros. Pour cela, la Commission a été autorisée à emprunter jusqu'à 200 millions d'euros sur les marchés des capitaux ou auprès d'institutions financières.

L'assistance financière devait être décaissée en deux tranches, de 100 millions d'euros chacune, sur une période de deux ans. Le Mémoire d'Entente a été signé le 5 Juillet 2010 et l'accord de prêt a été signé le 17 Décembre 2010 pour l'entrée en vigueur le 12 Avril 2011.

Le 15 Avril 2011, la Serbie a soumis à la Commission européenne une demande pour la mise à disposition de la première tranche de l'AMF, accompagnée d'un rapport sur le respect des critères de réformes structurelles conditionnant le décaissement de la première tranche. Suite au remplissage par la Serbie des conditionnalités inclus dans le Mémoire d'Entente, la première tranche de 100 millions d'euros a été décaissée le 15 Juillet 2011.

La deuxième tranche n'a pas été décaissée parce que l'accord avec le FMI n'était plus honoré depuis la fin 2011 et à cause de la diminution des besoins de financement de la Serbie. L'AMF a expiré deux ans après la signature du Mémoire d'Entente.

L'objectif de ce rapport est de présenter les résultats de l'évaluation des opérations de l'AMF à la Serbie.

Le rapport est structuré de la manière suivante:

- Premièrement, nous présentons le contexte macroéconomique dans lequel l'opération d'AMF a été initiée. Cela nous permet de mieux comprendre les problèmes et les besoins de l'économie serbe avant 2010, la raison d'être de l'AMF et de l'intervention du FMI ainsi que l'évolution de l'économie après l'AMF et l'aide du FMI. Ceci, en particulier, nous permet d'évaluer la pertinence de la structuration financière et des conditionnalités de l'Assistance macrofinancière.

- Deuxièmement, nous évaluons l'impact macroéconomique de l'AMF sur l'économie serbe en deux étapes:
  - Nous étudions l'évolution macroéconomique de la Serbie entre 2010 et 2012, afin d'identifier une série d'impacts possibles de l'AMF et d'évaluer dans quelle mesure les objectifs macroéconomiques de l'AMF ont été atteints ;
  - Nous procédons à une analyse contrefactuelle cherchant à déterminer l'effet net de l'AMF et de l'aide du FMI sur l'économie serbe.

Cette évaluation de l'impact macroéconomique de l'AMF nous aide à déterminer l'efficacité des opérations de l'AMF ainsi que leur impact général sur l'économie serbe.

- Troisièmement, nous abordons la question des réformes structurelles mises en œuvre suivant les conditionnalités formulées dans le Mémoire d'Entente (ME) de l'AMF. Cette tâche comporte deux volets:
  - Nous examinons l'efficacité et les modalités de mise en œuvre des réformes structurelles liées aux conditionnalités énoncées dans le Mémoire d'Entente. Sur cette base, nous évaluons la pertinence des conditionnalités et l'impact des réformes structurelles correspondantes sur l'économie serbe,
  - Nous nous interrogeons si les réformes structurelles correspondantes auraient été mises en œuvre en l'absence de l'AMF, estimant ainsi l'impact des conditionnalités sur l'économie serbe.
- Quatrièmement, nous examinons les indicateurs de viabilité financière externe de l'économie serbe et étudions l'impact de l'AMF sur ces indicateurs.
- Cinquièmement, nous abordons la question de l'interaction de l'AMF avec les autres composantes de l'aide financière internationale à la Serbie, en particulier l'instrument d'aide de préadhésion (IAP) fourni par l'Union européenne, l'accord de confirmation du FMI pour 2009-2011 et les programmes de soutien budgétaire de la Banque mondiale.

Ceci nous permet d'identifier les complémentarités ou des chevauchements potentiels entre l'AMF et les programmes mentionnés afin d'en déduire en fin de compte la valeur ajoutée de l'AMF par rapport à ces programmes, notamment le programme du FMI.

- Sixièmement, nous tirons les conclusions de l'évaluation et formulons des recommandations pour les opérations d'AMF à venir.

Les résultats de notre évaluation sont basés sur le travail de terrain en Serbie – notamment des entretiens avec les représentants du gouvernement serbe, des institutions financières internationales et de la Commission européenne – les résultats de l'analyse Delphi, un examen approfondi de la documentation et sur la modélisation macroéconomique.

Ceci nous permet de tirer des conclusions quant aux effets de l'Assistance macrofinancière sur l'économie serbe, l'optimalité de la structuration de l'AMF, et la valeur ajoutée de celle-ci par rapport à l'aide du FMI, de la Banque mondiale et de l'UE à travers l'Instrument d'aide de préadhésion.

L'objectif de l'AMF était de fournir une ligne de crédit afin de couvrir les besoins de financement externes de l'économie serbe, tout en assurant – par des conditionnalités appropriées – la mise en œuvre de réformes structurelles visant à permettre à la Serbie à atteindre la viabilité budgétaire à moyen et long terme et à aligner ses procédures de contrôle financier interne sur les normes de l'Union européenne.

Au regard de la stabilisation macroéconomique à court terme, l'AMF et l'assistance financière du FMI ont contribué à empêcher l'économie serbe de subir une crise économique majeure dont la survenance n'était pas exclue en 2009-2010. L'objectif macroéconomique à court terme de l'AMF de stabilisation de l'économie serbe a donc été effectivement atteint. Toutefois, la situation financière budgétaire et extérieure serbe demeure fragile et soumise à de nombreux risques et défis. La contribution nette du prêt AMF à la stabilisation macroéconomique serbe, comme le montre notre analyse contrefactuelle, a été vraisemblablement très limitée avec une perte de PIB comprise entre 0 et 0,05% en l'absence de l'AMF. L'impact sur les autres agrégats macroéconomiques est estimé d'une ampleur similaire. L'impact macroéconomique de l'aide financière du FMI, à son tour, est susceptible d'avoir été considérable en 2010 (le PIB plus bas de 0,3 % en cas d'absence des financements du FMI) et très proche de zéro en 2011. Plus important que le soutien financier direct fût le signal donné à des acteurs privés sur la volonté de l'UE d'aider à la Serbie face à des chocs négatifs.

En ce qui concerne le volet des conditionnalités, en Octobre 2010 le Parlement serbe a voté des amendements modifiant et complétant la Loi sur le Système Budgétaire remplissant officiellement les deux conditionnalités de l'AMF : l'introduction de règles budgétaires quantitatives et l'adoption de dispositions en matière de contrôle financier interne public (CFIP) issues du document définissant la politique publique en matière de CFIP. La participation de l'UE *via* l'AMF a été déterminante dans la mise en œuvre des mesures décrites dans les conditionnalités. En l'absence de l'AMF l'adoption de ces actes légaux aurait probablement été faite à un rythme plus lent, voire aurait été reportée.

Les mesures relatives au CFIP induisent une amélioration structurelle de la gestion des finances publiques serbe et contribuent à absorber progressivement l'Acquis communautaire dans la perspective de préadhésion de la Serbie. Ainsi leur mise en œuvre est pertinente et utile et la conditionnalité correspondante de l'AMF a eu un impact positif dans ce domaine.

Les règles budgétaires ont trois composantes: une règle de déficit budgétaire avec un ajustement pour le cycle, une règle pour le ratio de la dette au PIB et un ensemble de règles d'indexation des salaires publiques et des retraites. Bien que faisant partie de la Loi sur le système budgétaire depuis 2010, ces règles ont eu peu d'impact sur l'économie serbe : les déficits budgétaires réels ont dépassé ceux fixés par la règle du déficit budgétaire (surtout pour des raisons liées au cycle électoral), le ratio de la dette au PIB établi par la règle a été largement excédé en 2011 et 2012, alors que les effets règles d'indexation - formellement respectées - ont été largement dévalués par les pratiques de rémunérations *ad hoc* accordées aux employés du secteur public. Toutefois, les règles budgétaires quantitatives ont le mérite d'introduire la problématique de la responsabilité budgétaire comme l'un des principaux objectifs de la politique économique.

Notre étude de cas consacrée à des règles budgétaires examine plus en profondeur l'impact des règles budgétaires sur l'économie serbe. Nous montrons que le déficit budgétaire serbe est largement structurel ce qui implique que le déficit budgétaire ne serait pas éliminé si la croissance du PIB reprenait à son niveau potentiel. La politique

budgetaire serbe a été pro-cyclique dans les deux années précédant immédiatement la crise, ce qui a réduit les marges de manoeuvre budgétaires pour une réponse contra-cyclique une fois la crise survenue. La nécessité d'atténuer les effets néfastes de la crise ainsi que les élections à venir sont les principaux facteurs qui expliquent que les règles budgétaires furent largement ignorées par la politique budgétaire en 2011-12.

L'une des composantes-clés de la viabilité des finances publiques de la Serbie est le système de retraites. La question de l'organisation du système de retraites serbe et l'impact macroéconomique de celui-ci sont étudiés avec des options de réforme possibles.

Durant l'évaluation, il n'y a pas eu d'effets inattendus de l'AMF identifiés.

Un examen de la viabilité financière externe de la Serbie révèle que la position du pays est fragile et soumise à de nombreux risques. Le creusement du déficit du compte courant nécessite des entrées de capitaux qui peuvent s'arrêter brutalement en cas de crise financière. Une « euroisation » très élevée de l'économie expose celle-ci à des chocs de change négatifs. Le rapport de la dette extérieure au PIB a été stable sur la période 2010-2012, mais reste parmi les plus élevés de la région. Le niveau des réserves de change, en revanche, est tout à fait adéquat, notamment en comparaison avec les pays « pairs ». Concernant l'évolution du ratio de la dette publique au PIB de la Serbie en 2010-2012, la contribution du déficit budgétaire primaire était déterminante avec la dynamique du taux de change. En ce qui concerne la viabilité de la dette extérieure, le compte courant et la dynamique du compte de capital ont été les principaux moteurs de la baisse des fluctuations du ratio de la dette au PIB sur la période. La contribution de l'AMF à la viabilité financière externe de la Serbie a été très limitée : les bénéfices liés à la dette moins chère sont réels, mais très modestes et peu susceptibles de peser sur le long terme. Néanmoins la volonté de l'UE à soutenir la Serbie - y compris *via* l'AMF - et l'engagement de la Serbie à mettre en œuvre les réformes liées à l'adhésion future à l'UE ont été jugés importants par les agences de notation pour la dette souveraine serbe. Ceci permet d'envisager un effet favorable indirect de l'AMF, bien que ce dernier ne puisse être évalué quantitativement.

En ce qui concerne la conception et la mise en œuvre de l'AMF, les termes et les conditions, et le volume de l'emprunt de l'AMF étaient tout à fait adéquate, bien que son efficacité pour l'économie serbe ait probablement été plus grande si les fonds avaient été mis à disposition plus rapidement. En ce qui concerne l'articulation de l'AMF à l'égard des autres programmes d'aide financière, nos résultats montrent qu'elle était largement complémentaire à l'aide financière du FMI. En outre, l'AMF a fourni un fort soutien politique pour la mise en œuvre des réformes structurelles convenues entre les autorités serbes et le FMI. L'interaction avec l'Instrument d'aide de préadhésion a également exposé les complémentarités avec peu de chevauchement. Dans l'ensemble, la plus grande valeur ajoutée de l'AMF par rapport à l'aide du FMI et de l'assistance de la Banque mondiale était de fournir un soutien politique aux réformes structurelles en Serbie, et de rassurer les agents économiques privés sur l'engagement de l'UE à soutenir le pays – en particulier dans la perspective d'adhésion – tant à l'intérieur qu'à l'extérieur de la Serbie.

Après un examen ex-post, il apparaît que l'AMF a été clairement adaptée aux besoins de l'économie serbe. L'objectif de stabilisation macro-économique de l'AMF a été atteint, même si la contribution propre de l'AMF a été très modeste. Dans le domaine des réformes structurelles la contribution de l'AMF était plus importante, mais son efficacité n'est que partielle (règles budgétaires enfreintes) due à des facteurs exogènes. L'interaction avec d'autres formes d'instruments d'assistance financière

présentait beaucoup de complémentarités, et la structuration de l'AMF était largement satisfaisante. La valeur ajoutée de l'AMF réside principalement dans le soutien politique des réformes structurelles et le signal politique de soutien à la Serbie donné aux marchés.

Dans une perspective d'avenir et sur la base des conclusions de cette évaluation, il y a deux opportunités d'amélioration claires pour les opérations d'Assistance macrofinancière à venir concernant à la fois la mise à disposition de fonds et les conditionnalités de l'AMF.

En ce qui concerne le décaissement de l'aide financière, l'amélioration impliquerait, d'une part, une mise à disposition plus rapide de fonds de l'AMF afin de fournir les fonds quand ils sont le plus nécessaires et, d'autre part, l'arrêt de versements afin d'éviter d'éventuels effets d'aubaine si au cours de l'opération l'aide n'est plus nécessaire pour assurer la viabilité financière extérieure du pays bénéficiaire.

En ce qui concerne le volet politique de l'AMF, le renforcement du mécanisme de l'AMF exige, d'une part, l'accent sur les conditionnalités générant des «gains rapides» avant le décaissement de la première tranche - afin de permettre un décaissement rapide de l'emprunt lorsque cela est nécessaire - et, d'autre part, une exigence de conformité de politiques par rapport à la législation produite en réponse aux conditionnalités de l'AMF, afin d'assurer l'efficacité de l'ajustement structurel.

## Our evaluation approach

This section outlines and details our evaluation approach step by step, along with the evaluation techniques that we used.

The Terms of Reference specify the following evaluation questions:

**Table 1: Evaluations questions as per Terms of Reference**

ToR evaluation questions	
<b>Q1</b>	How would the economy of Serbia have evolved in the absence of the MFA assistance?
<b>Q2</b>	To what extent has the MFA assistance been effective in terms of the short-term macroeconomic stabilisation of Serbia?
<b>Q3</b>	To what extent has the MFA assistance been effective in terms of supporting structural reform in Serbia?
<b>Q4</b>	What have been the indirect and/or unexpected effects of the MFA assistance?
<b>Q5</b>	To what extent has the MFA assistance contributed to returning the external financial situation of Serbia to a sustainable path over the medium to longer-term?
<b>Q6</b>	How has the way in which the MFA assistance was designed and implemented conditioned its effectiveness and efficiency?
<b>Q7</b>	To what extent has the EU added value been maximised?

Our operational approach for the evaluation of the Macro-Financial Assistance sought to answer all these questions by reordering them in logical sequence following the intervention logic of the MFA. The question 1 refers to a counterfactual situation in terms of both the macroeconomic stabilisation impact and of impact on structural reforms. Thus, the question contains two components – a macroeconomic component and structural reforms component.

We structure our evaluation approach in the following way:

- First, we **describe the MFA** in terms of objectives, the design and relevance for Serbian economy. This step is a prerequisite for the evaluation. It provides a ground for answering the questions contained in the ToR;
- Second, we estimate its **macroeconomic effects for the Serbian economy** (“gross” effects as a response to question 2 of the ToR, then “net” effects as a response to the macroeconomic component of the **Q1** of the ToR);
- Third, we investigate the **structural effects of the MFA** . This provides the answer to the question 3 and the structural reforms component of the question 1 of the ToR;
- Fourth, we infer the **impact of the MFA on the external financial situation** based on the results obtained in two previous steps: we assess the change in the external financial situation of Serbia over the period 2010-2012; then we

infer the net impact of the MFA on the external financial situation of Serbia given the figures of the counterfactual analysis of macroeconomic stabilisation and of structural reforms. In this step we cover the question 5 of the ToR;

- Fifth: based on the results for the macroeconomic and structural impact and the impact on external financial situation of Serbia, we address the question of the **effects of the design and implementation characteristics of the MFA on its results**. This step covers the question 6 of the ToR;
- Sixth, we assess the **added value of the MFA**, specifically with respect to the IMF programme. This step corresponds to the question 7 in the ToR.

### Our operational approach

The primary step consisted in identifying objectives, the design characteristics and the implementation logic of the MFA. This would allow us, in particular, assessing its relevance to the needs of the Serbian economy. Operationally it involved the examination of all the documentation and files (Memorandum of Understanding, Loan Agreement, DG ECFIN notes to the Economic and Financial Committee) related to the MFA which were obtained from DG ECFIN. Along these documents, we examined the IMF reports on the Serbian economy (the full list is presented in the Appendix E – list of literature and data sources).

Based on this, we identified the objectives and the intervention logic of the MFA, presented in this Report, defined the evaluation criteria and identified the characteristics which useful in the further steps of the evaluation.

From there our evaluation followed the two pathways described in the intervention logic of the MFA.

- The first line of evaluation bore on the potential macroeconomic effects of the Macro-Financial Assistance and examined to what extent the macroeconomic objectives of the MFA had been reached. For that sake we proceeded in two steps:
  - The first step involved assessing the macroeconomic developments, including effects from the MFA, i.e. whether the macroeconomic situation of Serbia changed. For that sake we assessed to what extent the main macroeconomic indicators posterior to the intervention match the ex ante expectations. The main tool for performing this step was the analysis of the IMF reports and data from various Serbian sources (the list is available in the **Appendix E – list of literature** and data sources) presenting the evolution of the Serbian economy after the implementation in the period when the IMF SBA and the MFA were active (between January 2009 and December 2012). A specific attention is dedicated to the issue of the evolution of external financial sustainability following the MFA/IMF SBA.
  - In the second step, we assessed the net contribution of the MFA and MFA+SBA on the macroeconomic evolution of the Serbian economy – i.e. how the Serbian macroeconomic stance would have evolved in absence of the MFA (and IMF) disbursement of funds. This contribution is inferred from the comparison between the actual evolution of the Serbian economy in 2009-2012 and two hypothetical scenarios: a scenario in which the IMF SBA is enacted, while the MFA is not; a scenario in which neither the MFA nor



the IMF SBA is enacted. In order to work out the “net” macroeconomic effects of the MFA and IMF SBA we rely on the macroeconomic modeling (presented in the Appendix C – Our modelling approach). The differences in values of macroeconomic indicators under consideration provide us with the “net” macroeconomic effects of the MFA.

- The second line of evaluation addressed the structural effects of the MFA. This involves examining to what extent the structural reforms have been successfully implemented and the instrumentality of the MFA in this implementation:
  - The “gross” effects of the MFA on structural reforms simply study whether the two conditionalities specified in the Memorandum of Understanding had been effectively implemented and enacted. Evaluation of this effectiveness is based on the structured interviews and the examination of the Serbian documents related to the Serbian budgetary preparation process in 2009-2011. The questionnaire that was used for the structured interviews is presented in the Appendix B – Questionnaire for structured interviews.
  - The net – counterfactual – effects of the MFA (i.e. whether the structural reforms would have been put in place even without the MFA) are addressed through the Delphi questionnaire (presented in the **Appendix A – Our approach to** the Delphi interviews).
  - Once the macroeconomic and structural effects of the MFA identified, we proceed to the backward evaluation of the design and implementation features of the operation. In other words, given the actual impact of the MFA discovered in answering the evaluation questions, we examine whether the impact could have been more important had the MFA been structured differently or had the MFA operational implementation would have gone differently (e.g. a different implementation schedule). Structured interviews provided a backing to our conclusions in this field;
  - Finally, we infer the added value of the Macro-Financial Assistance intervention, in particular with respect to the IMF intervention, based on the results obtained in the previous steps. For instance, in order to assess the added value of the MFA with respect to the IMF in terms of macroeconomic stabilisation of Serbia, we rely on the figures obtained in the counterfactual analysis: the added value would be given by the difference between the net contribution of the IMF+MFA and the net contribution of the IMF alone. Following the same principle, the net contribution of the MFA to structural reforms is given by the increased likelihood of implementation of the two conditionalities contained in the MFA MoU with respect to the no-MFA situation (the question of whether these policy conditions would have been implemented even without the MFA also includes the consideration of whether in absence of the MFA similar policy conditions would have been put forward by the IMF or the World Bank).

Table 2 below unfolds our evaluation logic step by step, indicating the evaluation questions from the ToR that each step provides an answer to. For each evaluation step we also indicate one or a set of judgement criteria which allowed us providing an answer to the evaluation question. For each of the criteria we rely on the examination of one or more indicators which were obtained from the sources specified.

For every question and every judgement criteria, these indicators were used as benchmarks in order to check the impact of the Macro-Financial Assistance on the macroeconomic stabilisation of the Serbian economy and on the specified fiscal and public finance management reforms undertaken in Serbia in 2010-2012.

Following the evaluation logic developed in the Table 2, we present the specific techniques used in answering these evaluation questions in Table 3 Evaluation methodology.

The sequence of steps are closely interrelated (e.g. the description of the MFA is a pre-condition to the evaluation of its macroeconomic or structural effects) and are ordered as presented in the evaluation logic.

The first step has consisted in acquiring a full understanding of the MFA operations by examining the related documentation and interviewing the stakeholders involved in its design and implementation. Furthermore, we have acquired a complete understanding of the Serbian economy whose needs the MFA operations sought to address. This step allowed us to set up benchmarks against which the performance of the MFA had to be assessed in the following steps. In addition, full understanding of the MFA operations goals, instruments and background has indicated the data to be used for the macroeconomic analysis of the MFA impact and the documentary source and stakeholders involved and to be interviewed in order to perform the analysis of the MFA effects in terms of structural reforms.

The second step involves the analysis of the gross macroeconomic effects which was undertaken through the examination of statistical data and different documents bearing on the Serbian economic evolution in the period 2010-2012. The previous step helped us to identify all the relevant documentation sources and to collect all the necessary data so as to perform the analysis in the next steps. The analysis indicates the likely range of the MFA effects.

The third step identifies how the Serbian economy (and in particular the indicators expected to be impacted by the MFA and IMF financial assistance) would have evolved in absence of the financial assistance from the EU and the IMF. In order to assess the net effects of the MFA (and IMF SBA) we constructed and calibrated the model of the Serbian economy, presented in detail in the Appendix C – Our modelling approach. We collected a full set of data for the evaluation period 2010-2011 and the first results of the counterfactual modeling are presented in this Report.

Gross structural effects have been investigated in the same time as the assessment of the gross macroeconomic effects. In addition to the analysis of the statistical data, our assessment of these effects was performed through structured interviews with relevant stakeholders. Through the interviews we acquired full understanding of the modalities of implementation of the structural conditionalities specified in the MFA MoU.

Net structural effects are covered through the Delphi analysis. We designed the questionnaire used for the Delphi interviews (the questionnaire submitted to the stakeholders is presented in the Appendix A – Our approach to the Delphi interviews) and composed a list of stakeholders targeted as our Delphi participants. The purpose of the Delphi analysis was to assess the extent to which the MFA had been instrumental for the implementation of structural reforms specified as MFA conditionalities. The Delphi analysis was carried out in two rounds involving overall ten participants among the Serbian officials, representatives of the international financial institutions and of the private sector.

Once the results of the – both in terms of macroeconomic stabilisation and in terms of structural reforms – had been fully identified through the previous stages, we were

able to assess the impact of the design and implementation features of the MFA on the latter. This step also relied on the interviews with representatives of different stakeholder groups who formulated the alternative design/implementation hypotheses and allowed us discriminating between the effects of these hypotheses on the final outcome.

The question of the added value of the MFA, in particular with respect to the IMF or with respect to other EU instruments, was inferred from the previous results.

Table 2 Evaluation logic

Steps	Evaluation questions	Judgment criteria	Indicators	Source
<b>Description of MFA</b>	Preliminary step to answering all the question from the ToR	Matching between Serbian economy needs and the economic policy targets assigned by the Macro-Financial Assistance (MFA)	<ul style="list-style-type: none"> <li>External financing gap (difference between gross financing requirements and available financing)</li> <li>Characteristics of the MFA loan: <ul style="list-style-type: none"> <li>— amount,</li> <li>— timing of disbursement,</li> <li>— maturity,</li> <li>— interest rate.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>MFA Memorandum of Understanding</li> <li>Technical Memorandum of Understanding</li> <li>IMF review reports</li> </ul>
<b>Evaluation of gross macroeconomic short term effects</b>		The extent to which the short-term quantitative targets (i.e. “achievement of the 2010 deficit target of 4.1% of GDP”) set by the MFA/MFA+IMF SBA met	<p><b>Actual figures for:</b></p> <ul style="list-style-type: none"> <li>Currency reserves</li> <li>Current account balance</li> <li>Fiscal deficit</li> <li>Public debt-to-GDP ratio</li> <li>External debt-to-GDP ratio</li> </ul>	<ul style="list-style-type: none"> <li>IMF SBA Technical MoU</li> <li>IMF review reports</li> <li>NBS statistics</li> </ul>
	<b>Q2</b>	<p>The extent to which the programme was successful in reaching its short-term qualitative objectives, in particular:</p> <ul style="list-style-type: none"> <li>— Did the public debt to GDP ratio stabilize during the assistance?</li> <li>— Was the fiscal balance target reached?</li> </ul>	<p><b>Actual figures for:</b></p> <ul style="list-style-type: none"> <li>Currency reserves</li> <li>Current account balance</li> <li>Fiscal deficit</li> <li>Public debt-to-GDP ratio</li> <li>External debt-to-GDP ratio</li> </ul>	<ul style="list-style-type: none"> <li>IMF review reports</li> <li>NBS statistics</li> </ul>
		Change in the macroeconomic stance of the country after MFA/MFA+IMF SBA assistance	<ul style="list-style-type: none"> <li>Difference between ex-post outcomes and ex-ante programmes’ projections (mainly IMF-based)</li> </ul>	<ul style="list-style-type: none"> <li>IMF review reports</li> <li>NBS statistics</li> <li>Ministry of Finance and</li> </ul>

Steps	Evaluation questions	Judgment criteria	Indicators	Source
				Economy of Serbia data
<b>Evaluation of net macroeconomic short term effects</b>	Q2 Q1	<p>Change in the macroeconomic stance of the country attributable to MFA/MFA+IMF SBA assistance.</p> <ul style="list-style-type: none"> <li>• What would have been the cost of meeting external financing needs in 2009-2011? What would be the cost in terms of growth of a sharper current account adjustment?</li> <li>• What would have been the likelihood of a successful fiscal consolidation without the MFA (or MFA+IMF SBA)?</li> <li>• What would have been the cost of Dinar depreciation?</li> </ul>	<ul style="list-style-type: none"> <li>• Differential of the macroeconomic variables (GDP growth rate, current account balance, magnitude of fluctuation of the exchange rate, number of corporate defaults, interest rates on public debt, change in the likelihood of sovereign default etc) with respect to the counterfactual</li> </ul>	<ul style="list-style-type: none"> <li>• IMF review reports</li> <li>• NBS statistics</li> <li>• Ministry of Finance and Economy of Serbia data</li> </ul>
<b>Evaluation of gross structural effects of MFA</b>	Q3	<ul style="list-style-type: none"> <li>• Effectiveness – the potential positive impact on the recipient country reforms progress</li> <li>• Compliance – did the programme deliver on its main structural objectives?</li> </ul>	<ul style="list-style-type: none"> <li>• Binary indicator: condition fulfilled/not fulfilled</li> </ul>	<ul style="list-style-type: none"> <li>• IMF review reports</li> <li>• Output of the structured interviews</li> <li>• Output of cases studies</li> </ul>
<b>Evaluation of net structural effects of MFA</b>	Q3 Q1	<ul style="list-style-type: none"> <li>• The likelihood that the reforms undertaken in 2009-2012 would have been undertaken without MFA assistance (MFA + IMF assistance)?</li> <li>• The likelihood of the reforms' success without MFA assistance (MFA + IMF assistance)?</li> </ul>	<ul style="list-style-type: none"> <li>• Probability of implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Output of Delphi analysis</li> <li>• Output of cases studies</li> </ul>

Steps	Evaluation questions	Judgment criteria	Indicators	Source
<b>Gross impact of MFA on medium-long term external financial situation of Serbia</b>	Q5	Public debt sustainability in the medium-long run	<ul style="list-style-type: none"> <li>• Share of private liabilities in foreign currency</li> <li>• Interest rates at different maturities</li> <li>• Public debt in % of GDP</li> <li>• Interest rates on the public debt</li> <li>• Primary fiscal deficit (current and forecasted)</li> </ul>	<ul style="list-style-type: none"> <li>• Eurostat statistics</li> <li>• IMF review reports</li> <li>• NBS statistics</li> <li>• Ministry of Finance and Economy of Serbia data</li> </ul>
		Capacity to stabilize the current account deficit (produce surpluses) over the medium-long term – external competitiveness		
		Fiscal sustainability	<ul style="list-style-type: none"> <li>• Medium-term fiscal deficit</li> <li>• Labour cost index (vs. main trading partners)</li> <li>• Share of imports in exports</li> </ul>	
<b>Net impact of MFA on medium-long term external financial situation of Serbia</b>	Q5 Q1	Public debt sustainability in the medium-long run	<b>Counterfactual values (no MFA/no MFA and IMF) for:</b>	<ul style="list-style-type: none"> <li>• Output of the counterfactual modelling</li> </ul>
		Capacity to stabilize the current account deficit (produce surpluses) over the medium-long term – external competitiveness	<ul style="list-style-type: none"> <li>• Share of private liabilities in foreign currency</li> <li>• Interest rates at different maturities</li> <li>• Public debt in % of GDP</li> <li>• Interest rates on the public debt</li> <li>• Primary fiscal deficit (current and forecasted)</li> <li>• Medium-term structural fiscal deficit</li> <li>• Labour cost index (vs. main trading partners)</li> <li>• Share of imports in exports</li> </ul>	
		Fiscal sustainability		

Steps	Evaluation questions	Judgment criteria	Indicators	Source
<b>How have the design and implementation features of the MFA conditioned its performance?</b>	<b>Q6</b>	The relationship between the design/implementation of the MFA and its macroeconomic impact	<ul style="list-style-type: none"> <li>Characteristics of the MFA loan:               <ul style="list-style-type: none"> <li>— amount,</li> <li>— timing of disbursement,</li> <li>— maturity,</li> <li>— interest rate</li> </ul> </li> <li>MFA effects on different abovementioned indicators</li> </ul>	<ul style="list-style-type: none"> <li>MFA Memorandum of Understanding</li> <li>Results of the analysis of the previous questions</li> </ul>
		The relationship between the design/implementation of the MFA and its impact on structural reforms		
<b>How was the interplay between the MFA and the IMF assistance?</b>	<b>Q6</b>	Extent of complementarities between MFA economic policy conditions and IMF SBAs structural benchmarks/structural performance criteria	<ul style="list-style-type: none"> <li>Proportion of identical conditionalities in the IMF TMoU and MFA MoU</li> <li>Proportion of conditionalities in the IMF TMoU and MFA MoU not overlapping but belonging to the same structural reform area</li> </ul>	<ul style="list-style-type: none"> <li>MFA Memorandum of Understanding</li> <li>Technical Memorandum of Understanding</li> </ul>
		Degree of coordination with the MFA and IMF macroeconomic targets		
<b>What was the added value of the MFA with respect to IMF assistance?</b>	<b>Q7</b>	The evaluation of the MFA added value is performed based on the analysis of the results in the previous questions.		
<b>What was the added value of the MFA with respect to other EU instruments (e.g. Instrument for</b>	<b>Q7</b>	The evaluation of the MFA added value is performed based on the analysis of the results in the previous questions.		

Steps	Evaluation questions	Judgment criteria	Indicators	Source
Pre-Accession)?	<b>What was the added value of the MFA with respect to other IFI initiatives (e.g. World Bank)?</b>	<b>Q7</b>	The evaluation of the MFA added value is performed based on the analysis of the results in the previous questions.	

**NB:** The question Q4 of the Terms of Reference (“indirect and unexpected effects of the MFA”) is addressed based on the findings of the analysis of macroeconomic and structural effects of the MFA.



**Table 3 Evaluation methodology**

Steps	Evaluation questions	Evaluation techniques
<b>Description of MFA</b>	Preliminary step to answering all the question from the ToR	<ul style="list-style-type: none"> <li>▪ Face-to-face interviews and group meetings with the MFA stakeholders (Serbian authorities, IMF and DG ECFIN representatives);</li> <li>▪ Examination of all the relevant documentation provided by the DG ECFIN (Memorandum of Understanding;</li> <li>▪ Literature review</li> </ul>
<b>Evaluation of gross macroeconomic short term effects</b>	Q2	<ul style="list-style-type: none"> <li>▪ Analysis of statistical data on the evolution of main macroeconomic aggregates before and after MFA disbursement: growth rates in GDP and components, interest rates, real exchange rate, fiscal deficit, current account deficit, current account components (exports, imports, current transfers), inflow of FDI, portfolio and other investment, international reserves at the central bank, public and private debt and debt payments, debt ratings, etc.</li> </ul>
<b>Evaluation of net macroeconomic short term effects</b>	Q1 Q2	<ul style="list-style-type: none"> <li>▪ Economic modelling</li> <li>▪ Face-to-face interviews and group meetings with the MFA stakeholders (Serbia authorities, IMF and DG ECFIN representatives) in order to parameterize our model and to select the most plausible counterfactual scenario once the range of net effects of the MFA has been defined.</li> </ul>
<b>Evaluation of gross structural effects</b>	Q3	<ul style="list-style-type: none"> <li>▪ Analysis of statistical data on the evolution structural indicators - banking sector liquidity and stability, etc. - before and after the MFA operations.</li> <li>▪ Face-to-face interviews and group meetings with the MFA stakeholders (Serbia authorities, IMF and DG ECFIN representatives).</li> </ul>

Steps	Evaluation questions	Evaluation techniques
<b>Evaluation of net structural effects</b>	Q3 Q1	<ul style="list-style-type: none"> <li>▪ Delphi triangulation method</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ Case studies based on documentation review and interviews with relevant stakeholders.</li> </ul>
<b>Evaluation of indirect and unexpected effects</b>	This question is answered based on our findings for other sections	These effects are taken into account both in the framework of the macroeconomic modelling and also investigated using the documentation analysis and the Delphi triangulation method
<b>How have the design and implementation features of the MFA conditioned its performance?</b>	Q6	<p>Face-to-face interviews and group meetings with the MFA stakeholders (Serbia authorities, IMF and DG ECFIN representatives);</p> <hr/> <p>Findings from previous questions.</p>
<b>How was the interplay between the MFA and the IMF assistance?</b>	Q6	Face-to-face interviews and group meetings with the MFA stakeholders (Serbia authorities, IMF and DG ECFIN representatives);
<b>Added value of the MFA with respect to IMF assistance</b>	Q7	Findings from previous questions.

Steps	Evaluation questions	Evaluation techniques
<b>Added value of the MFA with respect to other EU instruments (e.g. IPA)</b>	Q7	Findings from previous questions.
<b>What was the added value of the MFA with respect to other IFI initiatives (e.g. World Bank)?</b>	Q7	Findings from previous questions.

## History and context of MFA operations

In order to understand where Serbian economy stood at the outbreak of the crisis we have to examine the challenges the economy faced in the years immediately preceding it and policies conducted through the decade in order to meet these challenges. Serbian economic background of the 2000s, in turn, was born from the complex political and economic evolution of the preceding decade.

Thus, we proceed first to understand the historical and institutional context in which the Serbian economy evolved in the 1990s. This allow us understanding the characteristics of the Serbian economy at the beginning of the 2000s, the challenges that a new reformist government had to face once it assumed leadership from October 2000 and subsequent economic developments that the Serbian economy underwent. Then, in the second place, we describe and analyze the macroeconomic evolution of Serbia in the 2000s. This sheds light on the weaknesses of the Serbian economy in the years preceding the crisis and the channels through which the crisis hit Serbia in 2008.

### Historical and institutional context on the eve of the 2000s

Before 1992 the Republic of Serbia was part of the Socialist Federal Republic of Yugoslavia (SFRY). After the breakdown of the SFRY, in 1992, Serbia and Montenegro formed the Federal Republic of Yugoslavia which became into a State Union of Serbia and Montenegro in 2003. The Republic of Serbia was founded after the breakdown of the State Union of Serbia and Montenegro subsequently to the declaration of Independence of Montenegro in June 2006.

In the period 2000-2008 Serbia had to undergo simultaneously a transition from socialist to market economy and a reconstruction after a decade of war and political turmoil. These two difficulties were embodied in cumulating challenges: at the beginning of the 2000s, the country's economy suffered from several and intertwined structural deficiencies and macroeconomic weaknesses resulting from the "lost decade" of 1990s or inherited from the command economy before 1991.

#### **"The lost decade"**

By 2000, the economy of the Republic of Serbia had been severely damaged by years of war, political instability and international isolation. Years of war represented a gradual sinking into the abyss: **during the 1990s decade its Gross Domestic Product fell by more than 50%**<sup>1</sup>. Income per capita in Serbia recovered to its 1990s level only in 2006<sup>2</sup>. Real GDP growth reached 7.8% in 1996 and 10.1% in 1997. However, the Kosovo war led to a serious slowdown in 1998 (+1.9%) and a sharp fall in 1999 (-15.7%)<sup>3</sup>. In addition, public infrastructure was affected by war destructions and a decade of under-investment.

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<sup>1</sup> International Monetary Fund, Country Report No.11/213 July 2011

<sup>2</sup> Idem.

<sup>3</sup> These numbers refer to the Federal Republic of Yugoslavia (FRY) composed of Serbia and Montenegro. However, Serbian GDP represented 90% of the aggregate FRY GDP. Thus, economic evolution of the Serbian economy can be inferred from the evolution of the economy of FRY. In addition, Serbian economy is likely to have been relatively more affected by the Kosovo war since, in particular, NATO air strikes spared the Montenegro territory.

Through the decade and up to 2000s, the economy kept several relics of the administered economy. In particular, a large part of the economy relied on state-owned and socially-owned firms, inherited from the pre-1990 period. These firms, employing an important share of the labour force, suffered from poor management and organization. The companies relied heavily on public support in the form of administered prices (in the case of monopolies) and subsidies to cover their losses. Survival of these inefficient corporate forms hampered development of the Serbian economy. Thus privatization became a key target for the government in the 2000s. The 1990s decade was also a decade of low investment which – along with the existence of inefficient state enterprises – explains Serbia's supply problem of the 2000s.

### ***Hyperinflation and defiance towards the Dinar***

The break-up of Yugoslavia led to the collapse of the Yugoslav Dinar into several currencies of newly independent states. In the 1990s, several revaluations were undertaken, but the stability of the FRY currency was seriously undermined by the hyperinflation of the middle of the 1990s.

Hyperinflation was a consequence of a sharp and growing mismatch between the output and a monetary mass. Output fell drastically following the collapse of the Yugoslavian economy, wars in neighbouring areas and international sanctions imposed on FRY. In the meanwhile, money supply increased very rapidly, reflecting government's reliance on seignorage revenues to cover its financing needs. By the end of 2000 Serbian external debt was estimated at around 145% of GDP, largely made of arrears on payments. Government was using monetary financing of the budget deficit, fuelling inflation. Furthermore, losses of state-owned companies were also covered by the monetary financing which further spurred inflation.

As a result, **inflation was double digit through the 1990s**, strongly accelerating after 1997. In 2000, inflation – as measured by retail price index – reached 113.5%.

This inflationary environment had, in turn, two consequences. First, high inflation undermined confidence in the Serbian dinar and pushed to a **large share of transactions being done in deutsche marks** (which became legal tender in Montenegro), later in euros. Second, following hyperinflation in the period 1992-1994, Serbian economy underwent severe demonetization and did not recover before the beginning of the 2000s.

Inflationary hysteresis and defiance towards the Dinar followed the Serbian economy into the 2000s and to the present day.

Among other structural weaknesses the reformist government inherited were a highly restrictive trade and foreign exchange rate regime, widespread administered prices and regulated employment contracts and wage determination. Addressing the latter became a priority of structural reforms.

### **Two past Macro-Financial Assistance support operations**

Before the Macro-Financial Assistance operation under consideration, there had been two Macro-Financial Assistance (MFA) programmes.

1st Macro-Financial Assistance (MFA) operation to Serbia: July 2001 – August 2002

The first MFA, awarded in July 2001, involved total amount of EUR 300 million<sup>4</sup>, later increased to EUR 345 million. Initially, the MFA comprised both loans and grants in the proportion of EUR 225 million for the former and EUR 75 million for the latter. In December 2001 the Council decided on the increasing the grant component by additional EUR 45 million of grants. The assistance was disbursed in three instalments from October 2001 to August 2002.

Table 4 – 1<sup>st</sup> Macro-Financial Assistance to Serbia 2001-2002

<b>Instalments</b>	<b>Amount</b>	<b>Disbursement date</b>
1 <sup>st</sup> instalment	EUR 225 million loan	October 2001
	EUR 35 million grant	
2 <sup>nd</sup> instalment	EUR 40 million loan	January 2002
3 <sup>rd</sup> instalment	EUR 45 million grant	August 2002

**Source: European Commission**

The MFA was linked to the IMF Stand-By Arrangement of June 2001.

2nd Macro- Macro-Financial Assistance (MFA) operation to Serbia: November 2002 – December 2005

The second MFA was awarded in November 2002 for the total amount of EUR 130 million, brought to 200 million in November 2003. The funds were made available in four instalments between December 2002 and December 2005. Disbursement of the fifth instalment involving EUR 20 million in grants and EUR 10 million in loans was cancelled by the European Commission given the improvement in the external financing needs of the State Union of Serbia and Montenegro. Furthermore, the loan component of the fourth instalment of EUR 15 million was not disbursed because the recipient country did not fulfil the condition laid down in the Memorandum of Understanding. Thus, only EUR 155 million was effectively disbursed, including EUR 100 million in grants and EUR 55 million in loans.

<sup>4</sup> 2001/549/EC: Council Decision of 16 July 2001 providing macro-financial assistance to the Federal Republic of Yugoslavia

Table 5 – 2<sup>nd</sup> Macro-Financial Assistance to Serbia 2002-2005

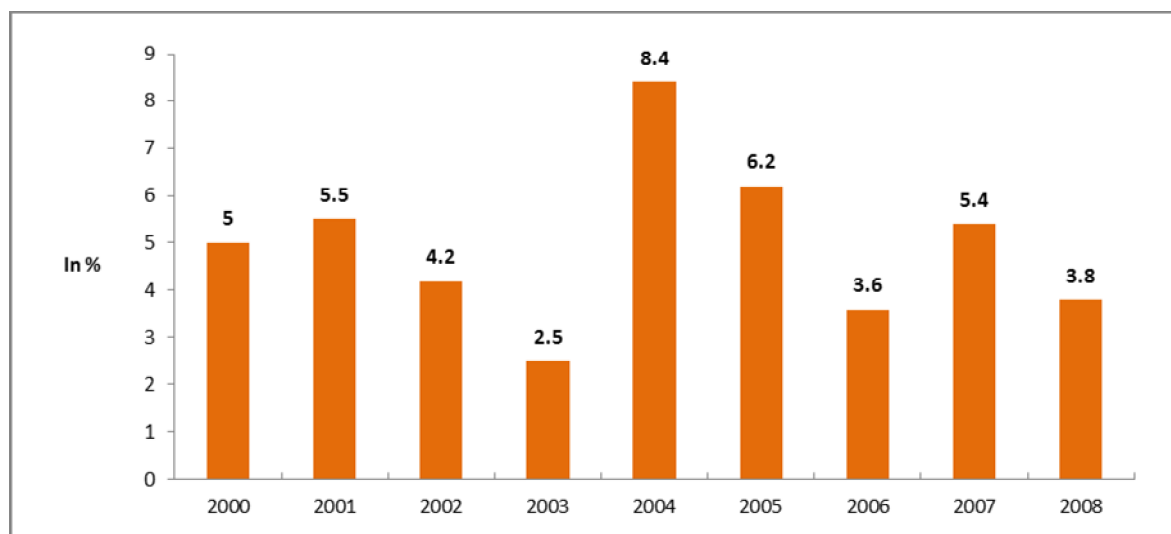
Instalments	Amount	Date
1 <sup>st</sup> instalment	EUR 30 million grant	December 2002
	EUR 10 million loan	February 2003
2 <sup>nd</sup> instalment	EUR 35 million grant	July 2003
	EUR 30 million loan	September 2003
3 <sup>rd</sup> instalment	EUR 10 million grant	December 2004
	EUR 15 million loan	April 2005
4 <sup>th</sup> instalment	EUR 25 million grant	December 2005

Source: European Commission

### Serbian economy in 2000-2008: persistent structural weaknesses, growing macroeconomic imbalances

After 2000, Serbia made significant progress with important political and economic reforms. The restoration of the macroeconomic stability provided a basis for rapid economic growth. Thus before the occurrence of the crisis in 2008-2009, Serbian economy exhibited strong rates of growth of GDP and GDP per capita (see Figure 3 below).

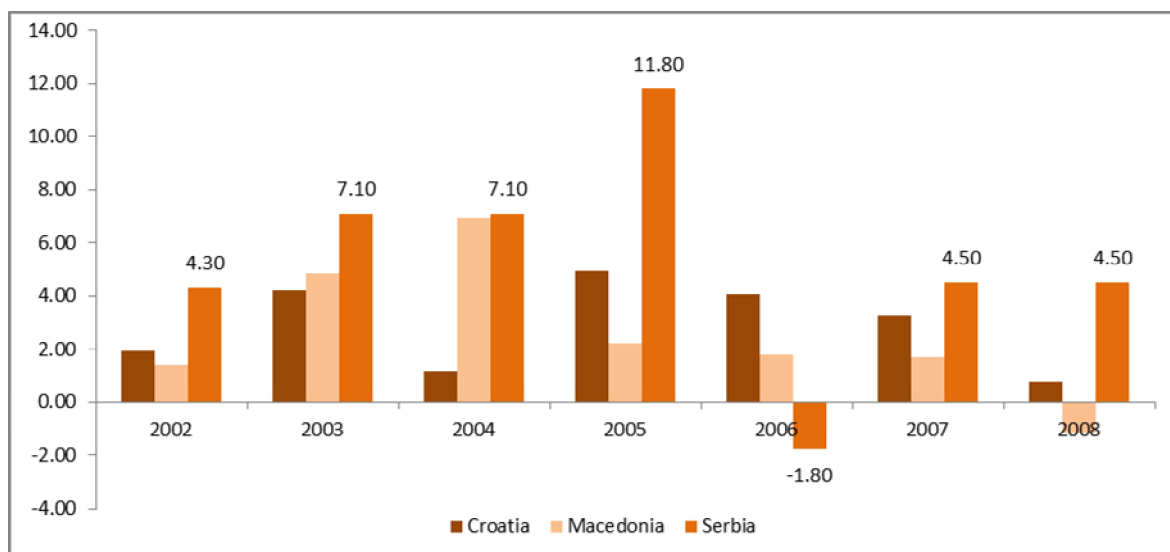
Figure 1 Serbia, Real GDP growth 2000-2008



Source: IMF

Overall, real GDP increased from RSD 887 billion in 2000 to RSD 1,352 billion in 2008. The real GDP growth represented 5% per year on average through the period 2000-2008. Albeit strong, this growth reflects mainly the catch-up of the economy after a decade of political and economic turmoil. A low level of capital per capita – consequence of a decade of low investments – and a huge restructuring potential underpinned a strong labour productivity growth through the 2000s decade. The graph below illustrates the evolution of the Serbian labour productivity from 2001 to 2008:

**Figure 2 - Serbia's labour productivity growth, 2002-2008**



**Source: IMF**

The evolution of the external indebtedness was characterized by two dynamics: a sharp decline in the ratio of public external debt to GDP (from 76.6% in 2001 to 16.9% in 2008) and, from 2004, a fast growth in private external debt which more than doubled (from 20.7% in 2001 to 46% in 2008). Thus on the eve of the crisis the main threat was posed by the level of private indebtedness, while the public external debt remained at largely manageable levels.

A major vulnerability of the Serbian macroeconomic situation resided in a current account deficit growing over the period 2001-2008.

The current account deficit is not a problem in itself when it reflects foreign borrowing to finance domestic investment. However, in the case of Serbia, investment in % of GDP was equally low for an economy in transition. Investment was constrained by domestic savings in % of GDP close to zero over the period and largely financed by the remittances inflows (which were on a downward trend) and relied heavily on foreign borrowing.

This extensive foreign borrowing - with a large proportion of loans in EUR - led to an important volume of unhedged foreign exchange positions.

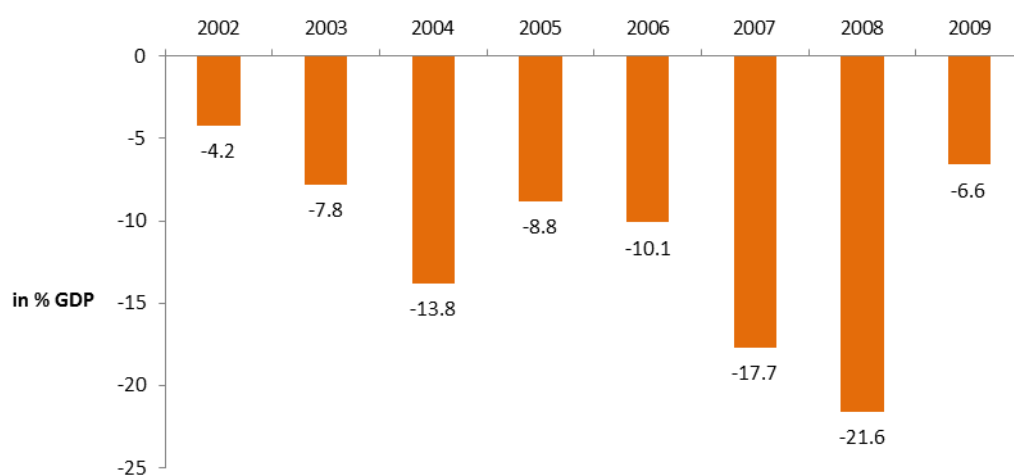
Finally, although inflation declined considerably at the beginning of the period, all over the period Serbian economy remained subject to strong inflationary tensions: average inflation was the highest among the Central and Eastern European transition economies in 2004-2008. This can be partly explained by inflation expectations hysteresis inherited from the 1990s.



These vulnerabilities resulted from a set of structural problems which characterized the Serbian economy.

Over the whole of the decade Serbian economic development was hampered by several structural problems. A major structural deficiency resided in the fact that growth was skewed toward the non-tradables - retail trade, communication, transport. While GDP grew by around 5.5% on average through the period 2001-2008, the tradable sector contribution was lower than one quarter of this expansion. Economic growth in the period 2000-2003 of 4% (annual average) was attributed to a cautious recovery in agriculture and the growth of the service sector, while the industrial and construction sectors contracted. Many industrial sectors that showed strong signs of a rebound in 2000 started to contract in 2001 and continued their decline through until 2003. In 2008 exports in % of GDP represented less than half of the level of comparable countries (central and eastern European economies in transition), while the imports in % of GDP stood at a roughly comparable level (65% of GDP in Serbia against 68% of GDP in comparable transition economies). Thus, in parallel to the lagging export performance, imports surged due to a rapidly growing domestic demand fueled by rapid growth of credit, inflow of remittances and increased foreign borrowing by firms. These two contrasting evolutions led to an increasing current account deficit (see Figure 1 below).

**Figure 3: Current account balance (in % of GDP), Serbia, 2002-2009**



**Source: National Bank of Serbia**

As shown in Figure 3: Current account balance (in % of GDP), Serbia, 2002-2009, the current account balance deteriorated sharply until 2008, evolution mainly driven by a strong growth of imports. Similarly, the strong subsequent correction of the current account deficit after 2009 is mainly due to the sharp decrease in imports offsetting the decline in exports and the fall in remittances.

The financial counterparts of the growing current account deficit are growth in external debt and capital inflows, specifically under the form of foreign direct investment (FDI).

Foreign direct investment (FDI) was relatively strong prior to the global financial crisis - USD 3.8 billion in 2007, USD 3 billion in 2008. In 2008, FDI net inflows reached 6.2% of GDP and the outflow of portfolio investment was equal to 0.6% of GDP.

However, FDI declined by 22% in 2009 and 44% in 2010 to respectively USD \$1.9 billion in 2009 and USD 1 billion in 2010.

The private sector's share of the economy had been much lower in Serbia than for comparable transition economies due to slow pace of privatization. Serbia's score on the EBRD transition indicators was low, especially on restructuring and privatization of large enterprises and competitiveness policies. Furthermore, Serbian economy suffered from poor business climate<sup>5</sup>. Overall, this hampered the development of a dynamic private sector reducing incentives for investment.

Public spending effort in Serbia was skewed towards social transfers and public employees' at the expense of the public investment. To complicate matters, public sector remunerations often grew faster than labour productivity and inflation. Wage growth in the public sector pushed up the equilibrium wage in the economy stimulating growth of wages in the private sector and thus reinforcing already-high unemployment. High wage growth intertwined with inflationary pressures to reduce the country's competitiveness furthering its trade deficit.

Global economic crisis caused serious deterioration in Serbia's macroeconomic situation. A strong policy response from the government with substantial support from IMF and EU was carried out.

The following section presents the EU Macro-Financial Assistance support operations and explains its rationale, objectives and the logic of intervention.

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<sup>5</sup> World Bank Doing Business Report, 2008

## **MFA: rationale, objectives and logic of intervention**

This chapter is dedicated to explaining the reasons of the MFA support operations initiative, the objectives of the latter and the structuring of the operation.

### **The rationale for MFA operations to Serbia**

By the end of the 2008, Serbia had suffered from huge external imbalances. The current account deficit – which was widening through the 2000s decade – reached 21.5% of GDP in 2008. This decade had been fuelled by extensive foreign borrowing, thus private external debt increased from 22.3% of GDP in 2003 to 46% in 2008. An outbreak of the global financial crisis – along with slowing external demand for Serbian exports and a decline in prices of main Serbian exports – dried the capital inflows into the country, calling for a subsequent current account correction.

Since a large proportion of these loans were in foreign currency, a current account adjustment through currency depreciation could have induced a sharp increase in the share of non-performing loans. To give an idea of the importance of this channel, according to IMF estimates<sup>6</sup>, a real depreciation of the Dinar by 30% in 2011 would have produced an increase of the external-debt-to-GDP ratio from 75.3% in 2011 to 110% in 2012 (instead of a decrease to 70.1% in a baseline scenario with the exchange rate stability).

Furthermore, since Serbian supply remained weak for structural reasons, a correction of the trade balance would go mainly through the decline of imports. Indeed, a depreciation of the Dinar would make the latter more expensive, reducing the purchasing power of the households and their demand.

Subsequently country risk indicators for Serbia strongly increased while capital inflows dried up sharply and suddenly, households withdrew a substantial share of their deposits in Serbian banks, and exports and imports experienced a strong decline. In addition, scarcer foreign capital was accompanied by an increased cost of borrowing – both private and public – fuelling fears of significant deterioration of the financial situation of public and private agents in Serbia.

In the face of large external financing gap, the authorities adopted an approach comprising three elements and embedded in an IMF-supported Stand-By Arrangement (SBA):

- Fiscal adjustment to restore fiscal sustainability,
- Financial Sector Support Program (FSSP), with foreign banks to maintain their external exposures to Serbia, while providing liquidity to their Serbian subsidiaries and recapitalising them if needed,
- External financing from the IMF, the World Bank and the EU to close the external financing gap.

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<sup>6</sup> International Monetary Fund, Republic of Serbia: Request for Stand-By Arrangement, October 2011, Pp. 47-48

In this perspective, Serbian authorities requested financial assistance in the form of a precautionary Stand-By Arrangement (SBA) from the International Monetary Fund at the end of 2008 and an SBA was approved by the IMF Executive Board on 16th of January 2009 for an amount of SDR 350.8 (around EUR 388 million). The SBA was extended to SDR 2,629.12 million (around EUR 2.9 billion) on the 15th of May 2009. The IMF SBA was put in place to smooth current account adjustment while ensuring that necessary structural reforms are implemented which has to positively impact different aspects of Serbia's economy – quality of public finance management, external competitiveness – and thus improve external financial sustainability perspectives of the country.

Complementary to the IMF programme, a Macro-Financial Assistance support operations were initiated. On the 15th of April 2011, Serbia submitted to the European Commission a request for the release of the first MFA instalment, accompanied by a Report on the fulfilment of the structural reform criteria related to the first tranche. Reassured by the fulfilment of the conditionalities included in the Memorandum of Understanding, the first instalment of EUR 100 million was disbursed on the 17th of July 2011.

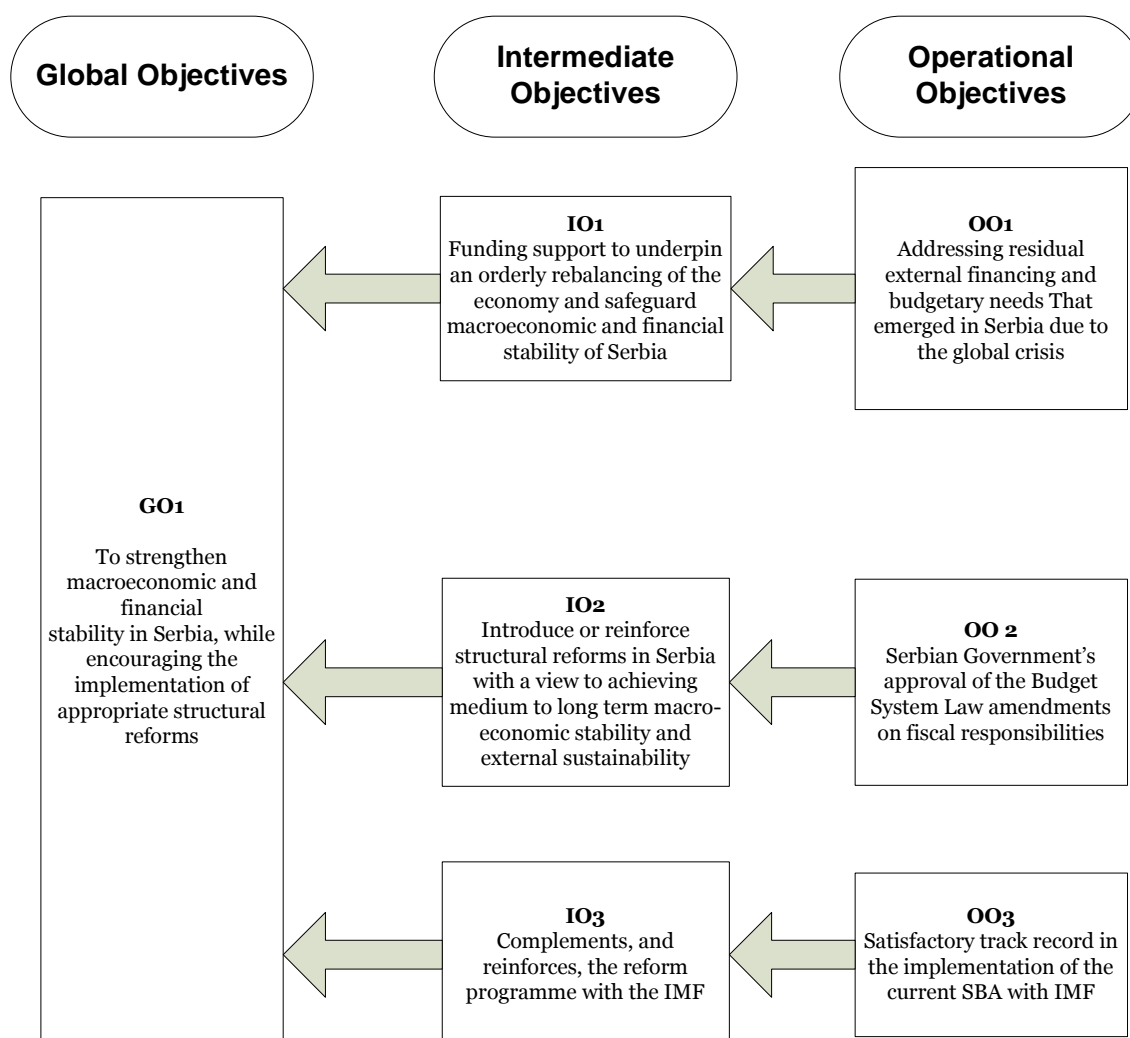
### **The objectives of the 2009 – 2011 MFA operations in Serbia**

The global objective of the Macro-Financial Assistance to Serbia as described in the Report from the European Commission to the Council and the European Parliament on the implementation of macro-financial assistance to third countries in 2011 is to ensure macroeconomic and financial stability in Serbia both in the short run and in a longer term perspective.

In the macroeconomic context of Serbia, stabilization of the economy and driving it on a sustainable path occurs through two intermediate objectives: an orderly adjustment of the existing macroeconomic imbalances in the short and medium term and implementation of structural reforms which would provide the country with a more sound fiscal framework and better growth perspectives.

Thus, operationally, the purpose of the MFA within the framework of the macroeconomic stabilisation was to provide funds in order to **cover the external financing needs** of the Serbian economy and its budgetary needs in the short run and. In the medium and long perspective, the MFA operational objective consisted in **improving the medium-long term fiscal sustainability** through structural reforms. To achieve this the MFA included a double-conditionality for disbursement of funds: successful implementation of own conditionalities in the MFA MoU and a satisfactory track record in implementing structural conditionalities required by the Stand-By Arrangement (SBA) with the IMF.

The Figure 4: Objective Tree of the 2009 – 2011 MFA Operations to Serbia below illustrates the global, intermediate and operational objectives of the Macro-Financial Assistance and how they are related.

**Figure 4: Objective Tree of the 2009 – 2011 MFA Operations to Serbia**

The purpose of this ex-post evaluation is to assess **the extent to which the objectives described above were attained.**

Given that the only one instalment of EUR 100 million was **disbursed in July 2011** and the structural conditionalities were explicitly laid down in the Memorandum of Understanding in **July 2010**, approximately two years have elapsed since the disbursement of funds and slightly more than two years has elapsed since the implementation of the structural conditionalities of the MFA. Broadly following the "Guidelines of the Ex-Post Evaluation of the MFA operations (2010)", we divide the potential effects of the MFA into short-run macroeconomic and structural effects (occurring up to two years after the MFA), medium run structural effects (occurring up to four years after the MFA) and the long run impact on the Serbian external financial situation sustainability (occurring up to three years after the MFA).

Given the time horizon since the disbursement of funds, the potential short-run macroeconomic and structural effects would have been fully effective two years after – even those occurring with a lag – and therefore we estimate to capture this in our

evaluation. If the MFA funds have had any short run macroeconomic or structural effects, they should appear in the data available today.

By contrast, medium term structural effects – along with effects on external financial sustainability are likely to have been effective at longer time horizons, three to four years after the MFA, thus and existing data does not allow tracking them in full.

### **2009 – 2011 Macro-Financial Assistance: logic of intervention**

Having defined the objectives of the MFA, we now examine how the 2009-2011 MFA was structured so as to achieve these objectives. In order to evaluate the actual achievements of the MFA, we first need to outline its intervention logic; this allows us to design the evaluation criteria and indicators against which the realisation of the objectives is to be assessed.

The 2009-2011 Macro-Financial Assistance consisted of:

- the financial assistance of EUR 100 million;
- structural conditionalities laid down in the MFA MoU which were prerequisites for the disbursement of funds; and
- structural conditionalities of the IMF, the fulfilment of which served as a prerequisite for the disbursement of MFA funds.

Thus, the intervention logic of the MFA unfolded around two parallel pathways:

- macroeconomic one developed around the disbursement of funds, and
- structural – involving the implementation of the two sets of conditionalities.

The two pathways ultimately converge to attain the global objective fixed by the MFA: stabilise the macroeconomic situation of Serbia and put the Serbian economy on track for medium and long-term external financial sustainability.

On the macroeconomic side, the MFA Memorandum of Understanding foresaw two tranches of EUR 100 million each, out of which only the first was disbursed. The reason was twofold. First, the IMF programme was no longer on track due to disagreements over the fiscal stance of Serbia. Second, the change in the macroeconomic stance of Serbia made external financial assistance less relevant. Thus the Serbian authorities did not request the disbursement of the second tranche and the MFA programme expired two years after the signature of the Memorandum of Understanding (in 2012).

Operationally, the MFA funds were transferred to the account of the National Bank of Serbia (NBS), more specifically its foreign currency reserves line. The NBS, in turn, transferred an equivalent amount in dinars to the Treasury. The economic use of the funds under consideration was, therefore, twofold: replenish the currency reserves of the NBS and cover a portion of the budget deficit.

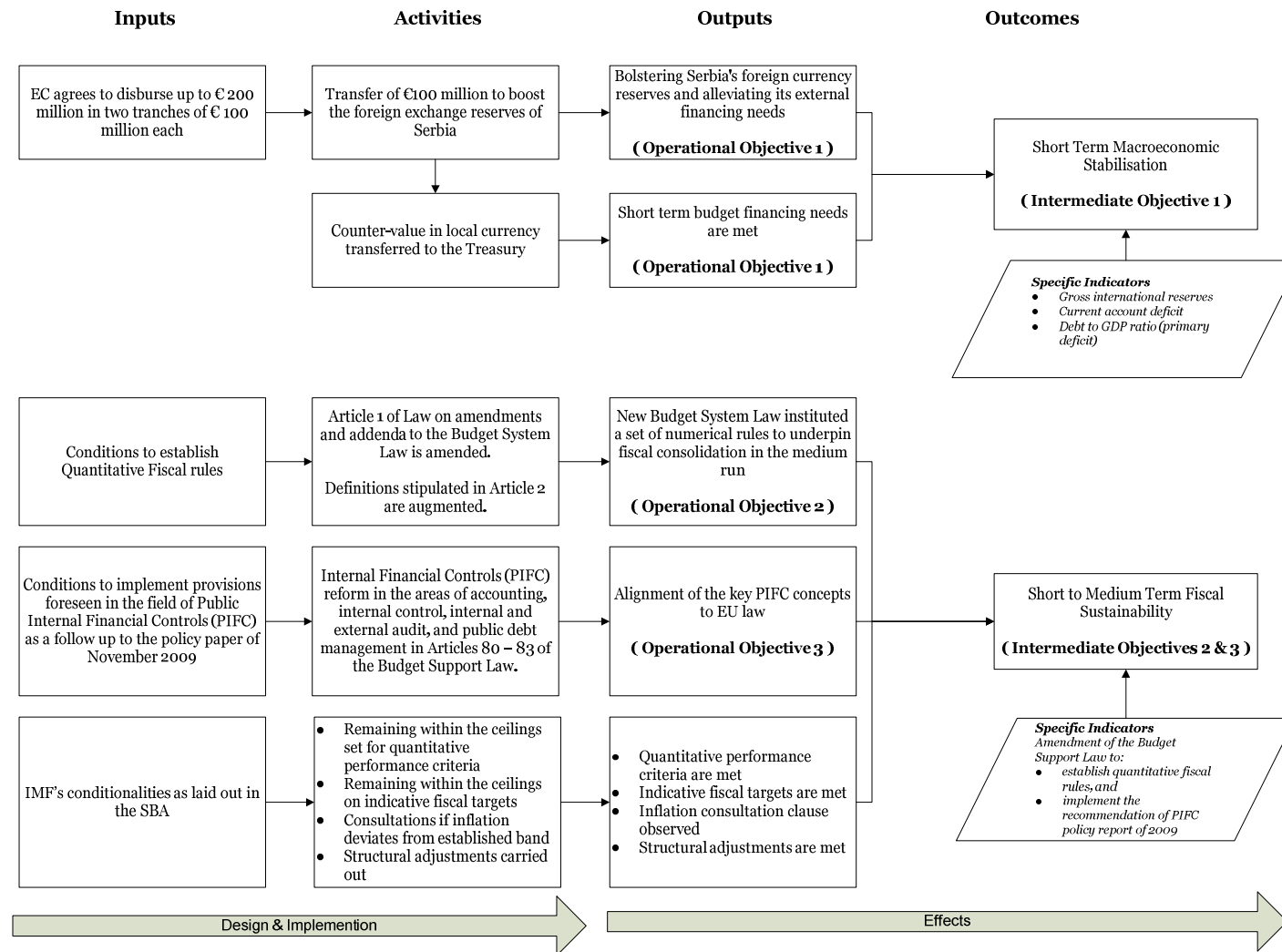
The expected outcomes were the macroeconomic stabilisation of the Serbian economy in the short run, thanks to increased fiscal sustainability, and smoother rebalancing of the current account.

As a prerequisite to the disbursement of funds, the MFA laid down conditionalities pertaining to structural reforms in the area of public finance management (PFM): implementation of quantitative fiscal rules and strengthening of the Public Internal Financial Control (PIFC). The stipulated reforms were implemented in the period 2010-2011 introducing a set of general and specific fiscal rules into the Serbian budget preparation process and aligning the Serbian PIFC to European law. These structural reforms would help achieving external financial sustainability by putting fiscal balance – one of the components of the latter – on a sustainable path.

In addition to structural reforms specified in the Memorandum of Understanding, the MFA funding required the satisfactory fulfilment of the structural conditionalities of the International Monetary Fund 2009-2011 SBA. Although the evaluation of these structural conditionalities is out of the scope of the present study, the MFA backing of the IMF conditionalities could have potentially affected the success of its implementation.

The Figure 5: Logic of Intervention for the 2009 – 2011 MFA Operations to Serbia below illustrates the logic of intervention of the MFA support operations to Serbia and matches the MFA objectives to the outputs and the outcomes of the MFA operations.

Figure 5: Logic of Intervention for the 2009 – 2011 MFA Operations to Serbia





The Macro-Financial Assistance was designed and implemented along with the IMF financial assistance programme with the aim of ensuring Serbia's short-term macroeconomic stabilisation and medium-long run external financial situation sustainability. In order to achieve these goals, the programmes – both MFA and IMF SBA – relied on two instruments: transfer of funds and structural conditionalities.

Provision of funds is intended to help Serbia cover its budget financing needs and, in parallel, replenish its foreign exchange reserves in order to smooth its current account adjustment.

Serbia's external financing gap was projected to EUR 1.85 billion over the period 2009-2011, thus, financial assistance from the IMF, the EU (MFA) and the World Bank was expected to cover this external financing gap in order to avoid an adjustment through sharper currency depreciation – which would threaten medium-long term external financial situation – or through additional contraction of domestic demand. In order to be fully effective, this financial assistance was accompanied by a set of structural conditionalities related to the fiscal policy stance.

The MFA specified two policy conditions:

- an introduction of the quantitative fiscal rules into the Budget Law, and
- amendments in the field of Public Internal Financial Control aligning Serbian legislation in the areas of accounting, public debt management, internal and external audit to the European law.

Thus, the MFA conditions aimed at improving public finance management and providing a quantitative framework for fiscal policy so as to enable Serbian authorities to check that ongoing fiscal stance is in line with medium term fiscal sustainability objectives. In addition, MFA laid fulfilment of the IMF conditionalities as a prerequisite for disbursement of funds. Thus, the MFA complemented the IMF financial assistance both on the financial side and on the structural reforms implementation side.

The two following subsections present in detail each of the components of the MFA intervention along the two intermediate objectives: short-term macroeconomic stabilisation and medium-long term fiscal sustainability.

### ***Short Term Macroeconomic Stabilisation: close external financing gap, cover budgetary needs***

The MFA planned two tranches of EUR 100 million each. Only the first one – for the amount of EUR 100 million – was effectively disbursed on the account of the National Bank of Serbia (NBS). The funds were used for two purposes: replenish the currency reserves and cover budget needs. The ultimate purpose of this funding was to contribute to a short-term macroeconomic stabilisation of Serbia.

According to the IMF figures, Serbia's external financing gap – the difference between the gross financing requirements and the available financing – in 2011 represented EUR 220 million. These financing needs were fuelled mainly by debt amortisation requirements (which increased from EUR 3.62 billion in 2008 to EUR 5.31 billion in 2011<sup>7</sup>), while the current account deficit sharply declined after 2008. The following table provides a breakdown of Serbian gross financing requirements and available financing sources for 2011:

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<sup>7</sup> IMF, Republic of Serbia: Request for Stand-By Arrangement, page 29

**Table 6 Serbia: external financing requirements and sources (in billion EUR), 2011**

Gross financing requirements		Available financing	
<b>Current account deficit</b>	<b>2.50</b>	<b>Capital transfers</b>	<b>0.00</b>
<b>Debt amortisation</b>	<b>5.31</b>	<b>Foreign direct investment (net)</b>	<b>1.50</b>
Medium-and long-term debt	3.78	<b>Portfolio investment (net)</b>	<b>0.10</b>
<i>Public sector</i>	0.50	<b>Debt financing</b>	<b>6.22</b>
<i>Commercial banks</i>	0.35	Medium- and long-term debt	4.69
<i>Corporate sector</i>	2.93	<i>Public sector</i>	0.75
Short-term debt	1.54	<i>Commercial banks</i>	0.94
<i>Commercial banks</i>	1.10	<i>Corporate sector</i>	3.00
<i>Corporate sector</i>	0.44	Short-term debt	1.54
<b>Accumulation of gross reserves</b>	<b>0.23</b>	<i>Commercial banks</i>	1.10
<b>Other outflows</b>	<b>0.00</b>	<i>Corporate sector</i>	0.44
<b>TOTAL</b>	<b>8.04</b>	<b>TOTAL</b>	<b>7.82</b>

*Source: IMF, Republic of Serbia: Request for Stand-By Arrangement, October 2011*

As explained in previous sections, the external financing gap existed for the period 2009-2011. In 2009 and 2010 the gap was covered by the IMF and the World Bank funds. In 2011, the EU is the main contributor through the Macro-Financial Assistance.

Since only one installment was ultimately disbursed in the framework of this MFA, our analysis bears on this tranche financial characteristics. The latter are specified in the Confirmation notice for the disbursement of the first installment.

The nominal amount represented EUR 100 million disbursed on the National Bank of Serbia account, short of costs deducted prior to disbursement (including payment of external legal opinion).

The interest rate on the loan represented 3.382% per annum, with the interest payment dates annually in arrears on 12 of July, commencing on and including 12 July 2012 up to and including the Final Maturity Date. The final maturity date is the 12th of July 2019, with principal repayment schedule breaking into three elements:

- EUR 33 million 333 thousand on the 12 July 2017;
- EUR 33 million 333 thousand on the 12 July 2018;
- EUR 33 million 334 thousand on the 12 July 2019.

The average maturity for this instalment is computed by the following formula specified in the Loan Arrangement:

$$\bar{M} = \frac{R_1 t_1 + R_2 t_2 + \dots + R_n t_n}{R_1 + R_2 + \dots + R_n}$$

Thus, the average maturity for the instalment (and therefore for the loan) is seven years.

Regarding the amount of the MFA effectively disbursed, EUR 100 million represented only 5% of the total external financing gap coverage over the period 2009-2011<sup>8</sup> and 45% of the total financing gap coverage in 2011. The following table provides a breakdown of the external financing gap coverage by year and by source:

**Table 7: External financing gap coverage of Serbia 2009 - 2011**

	2009	2010	2011	Total over 2009-2011
European Union	0	0	0.1	0.1
International Monetary Fund (IMF)	1.12	0.34	0.05	1.51
World Bank	0.04	0.13	0.07	0.24
Total over the three sources	1.16	0.47	0.22	1.85

**Source: International Monetary Fund, 2011**

Overall through the period 2009-2011, the contribution from the Macro-Financial Assistance to closing the financing gap is only incremental (5% of the total EUR 1.85 million). By contrast the contribution of the IMF represents 82% and the contribution of the World Bank accounts for the remaining 13%. In addition, the MFA contribution is entirely concentrated in 2011, while the financing gap took the largest value (EUR 1.16 billion) in 2009.

The incremental value of the MFA financial assistance does not preclude the existence of a macroeconomic impact of the MFA. However, it gives a preliminary insight on the likely upper bound of these impacts at the as well as the relative importance of MFA compared to the IMF assistance<sup>9</sup>.

In line with the Memorandum of Understanding, the amount of the first installment was transferred to the National Bank of Serbia (NBS) acting as an agent. The amount, in Euro, was registered on the foreign currency reserves balance of the NBS. In addition, the Memorandum of Understanding allowed transferring the amount equivalent in dinars to the Treasury, which could later be used to finance the expenditures planned in the Budget Law. The Memorandum of Understanding did not tie the MFA funds to any specific budget expenditure, leaving the decision to the discretion of the Serbian authorities.

Thus, the MFA funds' direct macroeconomic impact was twofold: an impact on the volume of foreign currency reserves (increasing the euro holdings of the NBS) and coverage of a portion of the fiscal deficit financing needs.

The following table provides an insight on the volume of National Bank of Serbia foreign exchange reserves in June and July 2011 (when the MFA funds were disbursed).

<sup>8</sup> According to the IMF estimates, the external financing gap was open only through the years from 2009 to 2011.

<sup>9</sup> According to the IMF Staff Report on Ex Post Assessment of Longer-Term Program Engagement and Ex Post Evaluation of Exceptional Access, without IMF assistance facing private sector external rollover needs and debt service and covering the current account deficit would represent a serious challenge for Serbia.

**Table 8 Foreign exchange reserves of the National Bank of Serbia, in EUR million, 2011**

	Gold	Special Drawing Rights (SDR)	Cash holdings and deposits abroad	Securities	Total
June	455.9	0.1	1,105.8	8,405.0	9,966.8
July	508.7	7.2	1,428.8	8,439.2	10,383.8

*Source: National Bank of Serbia*

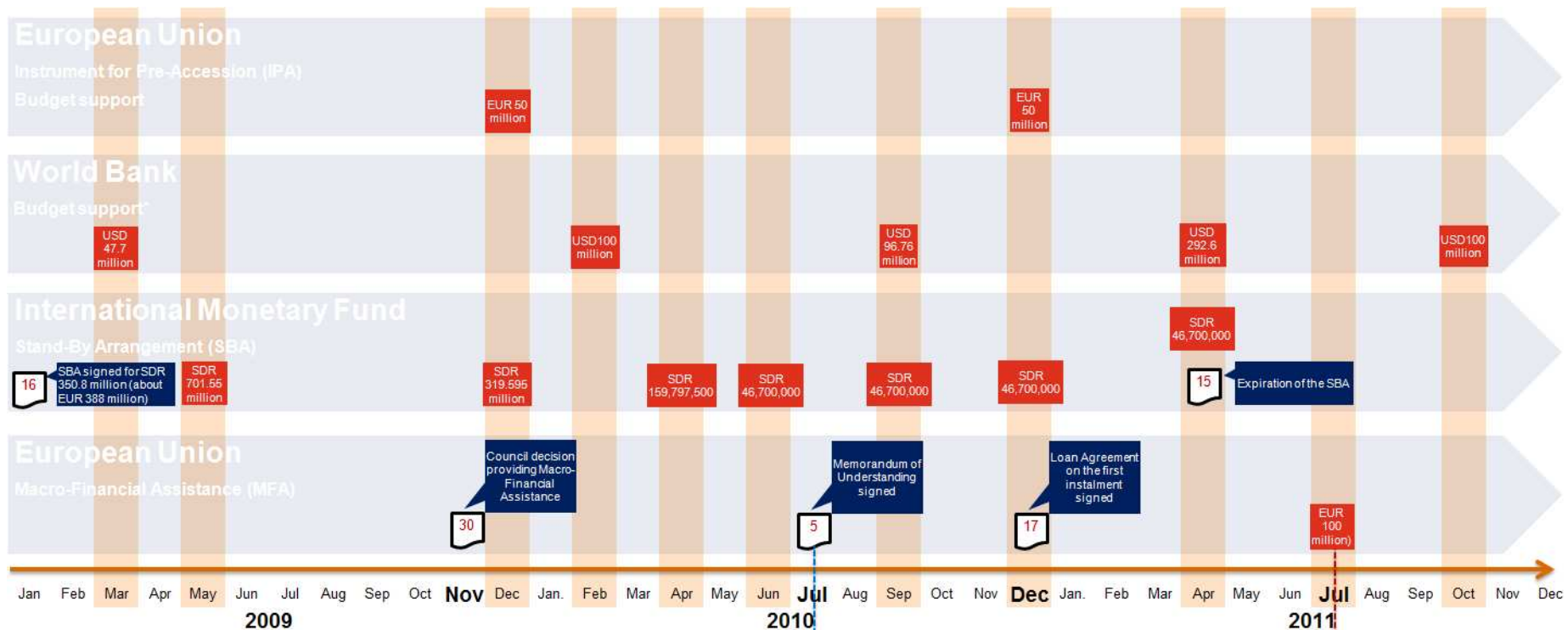
The MFA fund was disbursed to the NBS euro account and recorded in the "cash holdings and deposits abroad". According to the table, from June to July the foreign exchange reserves of the NBS went up by EUR 417 million. The cash holdings and deposits abroad went up by EUR 323 million.

The outcomes which ought to be investigated refer to the potential impact of the Macro-Financial Assistance on the indicators related to macroeconomic stabilisation of the Serbian economy. In the context of the MFA intervention logic, these indicators are the gross international reserves, the current account deficit and the debt to GDP ratio. However, we also examine the evolution of all the main macroeconomic aggregates in order to assess in full the macroeconomic impact of the MFA. The counterfactual analysis seeks to investigate what would have been the evolution of the Serbian economy in absence of the MFA financial assistance and in absence of the IMF and MFA involvement taken together.

In addition to the short-run macroeconomic stabilization, the MFA backed two important structural reforms in the area of public finance which ought to put the Serbian economy on the sustainable path in the medium to long term.

The following graph represents the financial assistance operations to Serbia performed by the European Union, the International Monetary Fund and the World Bank between January 2009 and December 2011.

### International financial assistance to Serbia – 2009-2011 timeline



\* World Bank budget support:  
 1) Serbia Public Expenditure Development Policy Lending Program (PEDPL)  
 2) Programmatic Private and Financial Development Policy Loan (PFDPPL) series and Private and Financial Sector Policy-Based Guarantee

- 30 Council decision providing MFA: Milestones of the MFA and IMF SBA with the date
- SDR 701.55 million: Volume of funds disbursed
- Nov**: Month of occurrence of an MFA event
- May: Month of disbursement of funds for any of the programmes

Source: PwC, IMF, World Bank, European Commission



### **MFA structural reform conditions: improve medium-long term fiscal sustainability**

Serbian economy's sharp downturn in 2008 unmasked a weak underlying fiscal position. According to the IMF, structural fiscal deficit in Serbia stood at 4.5% in 2008. Since fiscal deficit translates into borrowing, in particular external, higher fiscal deficit undermines external financial sustainability. Thus, in order to strengthen Serbian external financial medium-long term sustainability, both the IMF SBA and the MFA sought to address the issue through suitable macroeconomic policies and structural reforms in the area of public finance.

Among the latter, both IMF and MFA conditionalities put an accent on improvement of the budget preparation and execution process and establishment of fiscal rules setting quantitative targets on the main public finance indicators (debt-to-GDP ratio, fiscal balance).

Improvement in the budget preparation and execution process induces a better use of existing resources: thus the same level of public services can be sustained with reduced revenues or expenditures.

Fiscal rules subordinate the fiscal strategy to the objective of fiscal sustainability: the targets set in the rule are taken as given and all the policies involving revenues and expenditures are adjusted to fit the fiscal rule on aggregate. As a counterpart, when quantitative targets of public debt and deficit are successfully reached, it ensures that the fiscal component of the external financial sustainability is sound. Along with contributing directly to external financial sustainability, fiscal rules provide a stable and foreseeable framework for the private agents.

Both the Technical Memorandum of Understanding of the IMF SBA and the Memorandum of Understanding of the MFA included a clause for the establishment of fiscal policy rules setting a ceiling on the level of public debt to GDP and defining a clear target for medium-long fiscal deficit. Henceforth, fiscal policy would be globally constrained by rules rather than following a discretionary path.

The following table summarizes the conditionalities underlying the Macro-Financial Assistance to Serbia 2009-2011 and presented in the Annex I of the corresponding Memorandum of Understanding.

**Table 9 MFA November 2009 Structural reform criteria**

1 <sup>st</sup> instalment	2 <sup>nd</sup> instalment
Government approval of the Budget System Law amendments on fiscal responsibility including: <ol style="list-style-type: none"> <li>1) The establishment of quantitative fiscal rules, and</li> <li>2) Provisions foreseen in the field of Public Internal Financial Control (PIFC) as a follow-up to the policy paper approved in November 2009.</li> </ol>	<ol style="list-style-type: none"> <li>1) Parliament approval of the amendments to the Budget System Law approved by the government prior to the 1<sup>st</sup> instalment</li> <li>2) Circulation among relevant stakeholders of a draft PEFA report in the context of the PEFA update exercise launched in 2010 with the aim of preparing a PFM roadmap</li> <li>3) Approval of by-laws regulating extra-budgetary funds</li> <li>4) Recruitment of the Ministry of Finance internal auditor</li> <li>5) First steps in the implementation of the new public debt strategy; in particular</li> </ol>

	<p>issuance of Dinar-denominated T-bills with a maturity of at least 18-months</p> <p>6) Further integration of the Medium-Term Expenditure Framework (MTEF) into the budget process, in particular by introducing a 3-year budget ceilings</p> <p>7) Adoption of public accounting standards in line with international standards</p> <p>8) Enactment of the revised Law on the State Audit Institution</p> <p>9) State Audit Institution: <ul style="list-style-type: none"> <li>— Production of a draft audit report on the 2009 financial statements for the Republic of Serbia, and</li> <li>— Launching the audit of three state-owned enterprises</li> </ul> </p> <p>10) Maintain and develop administrative capacity in the Ministry of Finance in order to deal with the EU integration issues, such as the decentralised implementation system (DIS) and state aid control.</p>
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**Source: Memorandum of Understanding between the European Community and Serbia, July 2010**

Since only the first instalment was disbursed, only the implementation of the conditionalities related to the first instalment is relevant for this evaluation.

Thus, our evaluation addresses the effectiveness of the inclusion of the quantitative fiscal rules and provisions in the field of Public Internal Financial Control (PIFC) in the Budget System Law, their effective implementation and possible impact on medium and long term fiscal sustainability.

The implementation of the two conditionalities constituted a prerequisite for the disbursement of funds. On the 14th of April 2011, The Ministry of Finance of Serbia addressed to the delegation of the European Union to the Republic of Serbia a request to consider the release of the first loan instalment consequently to the fulfilment by Serbia of the two conditionalities included in the Memorandum of Understanding for the first instalment.

Indeed, in October 2010 The National Assembly of the Republic of Serbia made effective the Law on amendments and addenda to the Budget System Law, including a set of quantitative fiscal rules and included a set of amendments related to the Public Internal Financial Control.

The expected outcome is the impact on medium-long term fiscal sustainability. This impact is investigated based on the documentation review.

A counterfactual analysis is also undertaken using the Delphi technique, investigating possible scenarios for the implementation of the mentioned structural reforms in absence of the MFA-backed reforms in the area of public finance. Then, the counterfactual is the projection of trends that would prevail in the absence of the MFA.

The evaluation criteria used for the assessment of the MFA impact on the structural reforms is the relevance (to what extent the structural conditionalities specified in the MoU matched the needs of the Serbian economy), effectiveness (to what extent have the structural conditionalities specified in the MoU been implemented) and efficiency (what was the impact of the implementation of these conditionalities on the short, medium and long term fiscal position of Serbia).

For the first criterion – relevance – we provide a qualitative response based on the structured interviews and our analysis of the situation of the Serbian economy prior to the MFA.

For the second criterion – effectiveness – we address the issue of the fulfilment of the conditionalities and its effective sustainability over the period (i.e. to what extent rules put in place have been effectively applied). We also address the question of whether the conditionalities specified in the MFA MoU would have been put in place without the MFA. The latter question is addressed through the Delphi questionnaire.

Finally, for the third criterion – efficiency – we estimate the gross and net impact of the MFA on the evolution of the fiscal – and more generally external financial – sustainability indicators.

## **MFA contribution to short-term macroeconomic stabilisation in Serbia**

The evaluation of the MFA impact on short-term macroeconomic stabilisation is undertaken in three steps. First, we describe the objectives of the MFA in the field of macroeconomic stabilisation and assess their relevance to the Serbian economy. Second, we describe and analyze the macroeconomic developments – which include the effects from the MFA – in Serbia in the period under consideration. Third, we perform the counterfactual analysis in order to gauge the net macroeconomic effects of the MFA.

### **MFA objectives for short-term macroeconomic stabilisation and their relevance to the needs of the Serbian economy**

The purpose of this section is to describe the objectives of the Macro-Financial Assistance in terms of macroeconomic stabilisation and to assess their relevance. The MFA funds were disbursed in July 2011 therefore direct macroeconomic effects of the MFA could not be produced before. However, indirect impact of the MFA – e.g. sending a message to private markets and investors about the EU commitment to support Serbia – could have taken place even before the funds were actually disbursed. Thus, the direct effects of the MFA on macroeconomic stabilisation are assessed over the period July 2011-December 2012, while the indirect macroeconomic effects of the MFA cover the period December 2009- December 2012.

Macro-Financial Assistance operated simultaneously and in line with the International Monetary Fund financial assistance. Thus, in our analysis we take into account the effects of the financial assistance provided by the IMF along with the effects of the MFA funds.

In order to assess the relevance of the MFA for the Serbian economy, we need to take into account two considerations: the channels through which the Macro-Financial Assistance aimed at impacting the economy and the relative size of the MFA funds with respect to the indicators it sought to impact.



The MFA funds were used twofold:

- To increase the foreign currency reserves of the NBS in 2011
- To cover a portion of the budget deficit of Serbia as it stood in 2011

The IMF loan was used exclusively to increase the foreign currency reserves of the NBS. The IMF assistance is just a transfer of funds to the NBS (in SDR) which can be used (or not used) for foreign currency operations, but not for the budget support. The NBS is prohibited from purchasing government debt on a primary market (monetisation of debt) and can only purchase public debt on secondary market.

Thus, the MFA funds could impact the Serbian economy through the channel of foreign currency reserves and through the budget deficit channel, while the IMF loan could impact the economy only through the foreign currency reserves. The channel of FX reserves consists in providing the National Bank of Serbia with additional foreign currency funds thus increasing its ability to finance national agents trade operations at the unchanged nominal exchange rate of the Dinar.

In order to assess the potential impact of the MFA funds on the Serbian economy we study the evolution of the Serbian economy in 2010-2013.

### **Serbian macroeconomic evolution before and after MFA: 2010-2013**

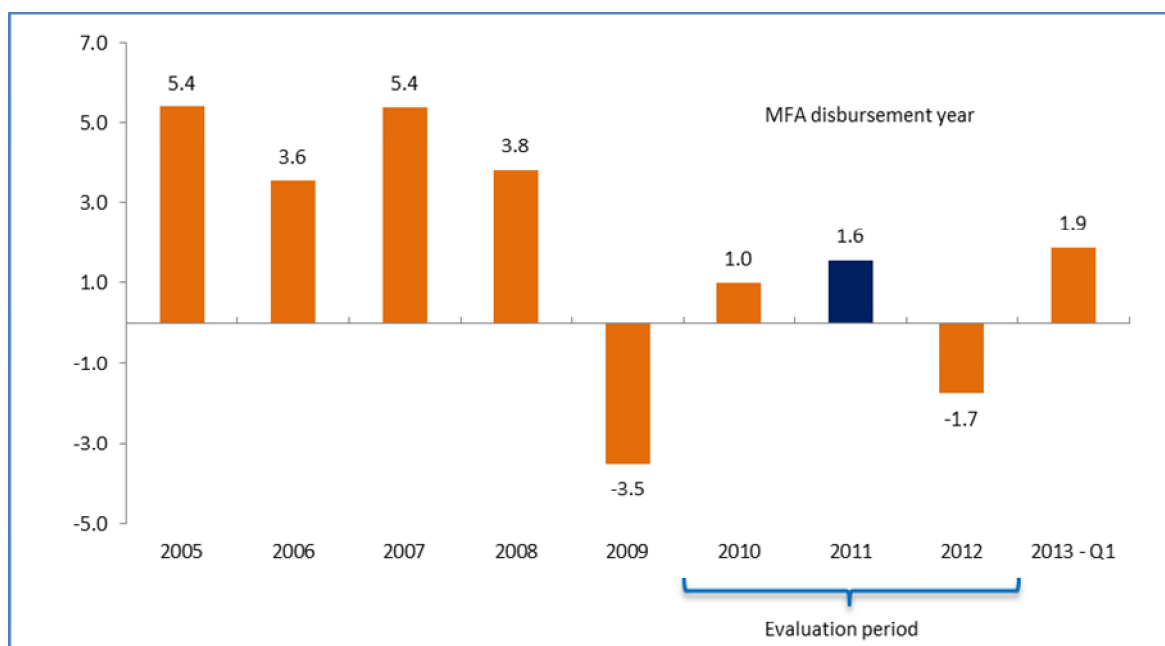
This section seeks to assess the macroeconomic impact potential of the MFA, in other words the evolution of the Serbian economy following the implementation of the MFA. Although this does not imply direct causation from the MFA or IMF financial assistance, it allows identifying the likely range of the macroeconomic effects of both the MFA and the IMF. In addition, we are able to make an assessment of whether the objectives of the MFA in terms of macroeconomic stabilisation were achieved qualitatively. Own contribution of the MFA and IMF funding is identified in the next section.

#### ***GDP growth***

The global economic crisis of 2008-2009 which hit the Serbian economy translated into a slowdown of economic growth by the end of 2008 which turned into a full-fledged recession in 2009 when the GDP contracted by 3.5%. The crisis impacted particularly the industrial and construction sectors where output fell respectively by 12.2% and 14.3% in 2009. Years 2010-2011 brought only modest recovery with 1% growth in 2010 and 1.6% in 2011 as Serbia was hit by the second wave of the crisis in particular financial difficulties and subsequent weakening of the demand of the Eurozone. In 2012 GDP fell again, by 1.7%. The recent downturn is due, in particular, to adverse weather conditions affecting the agricultural production and persistently weak demand in the euro area which is the major destination of Serbia's exports.

The table below presents the real GDP growth in Serbia from 2002 to 2012:

**Figure 6 - Serbia real GDP growth 2005-2013**



**Source: National Bank of Serbia**

As we will see further on, this pace of GDP growth was one of the key reasons for the Serbian government's failure to comply with the medium-term fiscal deficit target of 1% of GDP contained in the fiscal responsibility legislation of 2010 (which in turn was introduced to comply with the MFA policy condition). Since the outbreak of the crisis and all through 2009-2012 the GDP growth never reached its pre-crisis rates. At the end of 2012 Serbian GDP stood at around 97.34% of its 2008 level. The IMF and the Serbian government anticipate real GDP growth to reach around 2% in 2013 due to a recovery in agricultural production and the opening of a Fiat plant in Serbia previous year.

From the sector perspective, the 2010-2011 recovery was driven by industrial and agricultural production, building industry, transport and telecommunications. The largest contribution to real GDP growth in 2011 was from the information and communication sectors (0.9 percentage points of the overall 1.6% real GDP growth) and from the industry (0.6 percentage points), while the highest negative contribution was from the wholesale and retail trade sectors (-1 percentage point).

The following table provides a breakdown of Serbian GDP by type of expenditure:

**Table 10 - GDP breakdown by expenditure (current prices), 2005-2011**

	2005	2006	2007	2008	2009	2010	2011
<b>Private consumption</b>	77.1	77.1	76.4	77.0	79.7	80.1	77.0
<b>Public consumption</b>	18.8	19.0	20.5	20.1	19.8	19.7	19.3
<b>Private investment</b>	19.0	21.0	24.3	23.8	18.8	17.8	18.5
<b>Changes in inventories</b>	4.7	3.1	4.7	6.0	-0.7	-0.5	1.7
<b>Net exports</b>	-19.6	-20.1	-25.9	-26.8	-17.7	-17.0	-16.4
— <b>Exports of goods and services</b>	28.3	31.4	30.6	31.4	29.4	36.0	36.6
— <b>Imports of goods and services</b>	47.9	51.5	56.5	58.2	47.1	53.0	53.0

*Source: Statistical Office of the Republic of Serbia*

One of the key challenges facing the Serbian economy at the outbreak of the crisis was the switch from an unsustainable domestic consumption-driven growth to more export-oriented growth model. The crisis years did not increase the share of investment in GDP: over the period 2003-2008 the share of investment represented 20.7% of GDP on average, in the crisis period 2009-2011 the share of investment declined to 18.4% of GDP. This change is due to the investment being generally more cyclical than consumption. The major change is on the trade balance side: although Serbia had remained a net importer, the net exports as a share of GDP rose to -16.4 from an average of -22.5% of GDP in 2003-2008. This change, is due both to a decrease in the share of imports (relatively to the years immediately preceding the crisis) and to the increase in the share of exports to GDP.

For the sake of consistency the following table provides a breakdown of the GDP by expenditure in constant prices over the same period:

**Table 11 - GDP breakdown by expenditure (constant prices), 2005-2011**

	2005	2006	2007	2008	2009	2010	2011
<b>Private consumption</b>	77.7	78.7	78.9	78.5	77.6	78.2	78.0
<b>Public consumption</b>	19.5	18.6	20.4	20.6	20.4	19.7	19.6
<b>Private investment</b>	19.1	21.5	25.9	25.3	19.2	17.5	19.0
<b>Changes in inventories</b>	4.9	3.1	4.9	5.9	-0.7	-0.5	1.6
<b>Statistical discrepancy</b>	-2.7	1.6	0.8	-3.0	2.4	-0.5	1.1
<b>Net exports</b>	-18.4	-23.6	-30.8	-27.3	-18.9	-14.4	-19.3
— <b>Exports of goods and services</b>	27.8	31.9	33.3	32.4	29.9	33.6	36.6
— <b>Imports of goods and services</b>	46.2	55.5	64.1	59.6	48.8	48.0	55.9

*Source: Statistical Office of the Republic of Serbia*

The figures presented in this table are in line with our findings from the previous table.

The following table provides real growth rates for the GDP components over the period 2006 to 2012.

**Table 12 – GDP components, real growth rates (to the previous year, in %), 2006-2012**

	2006	2007	2008	2009	2010	2011	2012
<b>Gross Domestic Product</b>	3.6	5.4	3.8	-3.5	1.0	1.6	-1.7
<b>Final consumption expenditure</b>	5.1	8.9	6.1	-2.7	-0.7	-0.7	-1.2
— <b>General government sector consumption</b>	-0.3	11.1	5.9	0.2	1.2	1.2	1.8
<b>Gross fixed capital formation</b>	17.2	29.7	8.5	-22.1	-5.5	8.4	-3.4
<b>Exports of goods and services</b>	16.9	11.7	9.8	-8.0	15.3	3.4	4.5
<b>Imports of goods and services</b>	20.0	31.0	9.6	-19.1	3.1	7.0	2.3

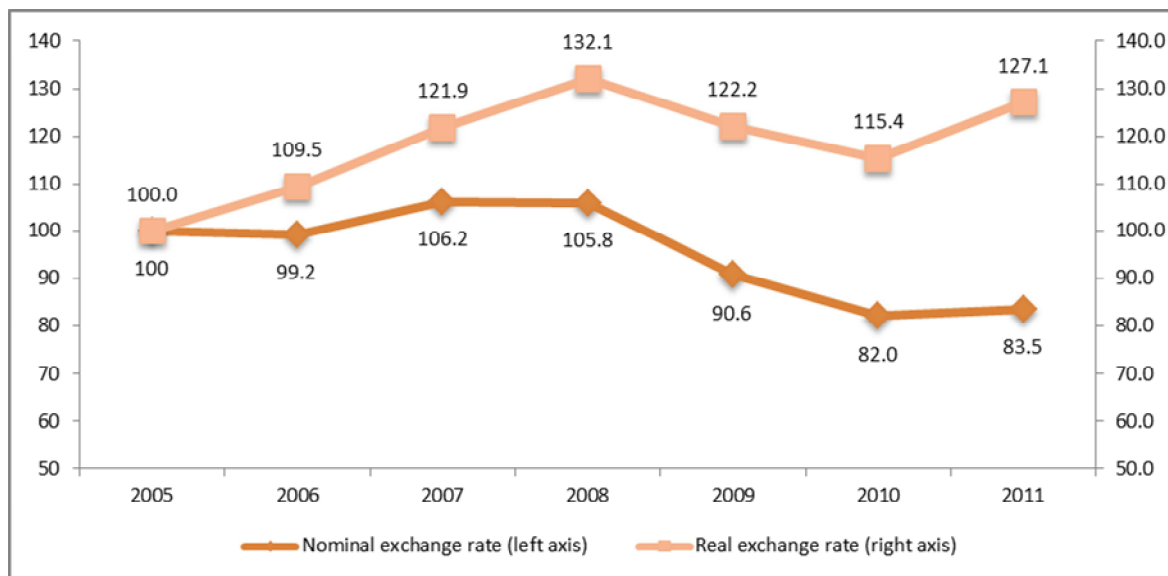
*Source: Statistical Office of the Republic of Serbia, IMF*

In the years preceding the crisis imports grew faster than exports. In 2008 the two aggregates grew at the same pace, with the outbreak of the crisis imports fell more than exports: the former declined by 19.1%, while the latter fell by 8%. Exports also recovered stronger in 2010 exhibiting 15.3% growth against a 3.1% growth for imports.

As expected in recession, investment growth rates became sharply negative, effectively driving the fall in GDP. This fall in investment rates is explained by a sharp fall in foreign direct investment and foreign borrowing.

This net export performance is explained both by the contraction in domestic consumption which reduced the demand for imports and by the Dinar depreciation from 2008. The following graph shows the nominal and real exchange rate evolution of the Serbian Dinar in 2005-2011:

Figure 7 - RSD nominal and real exchange rate indices, 2005-2011

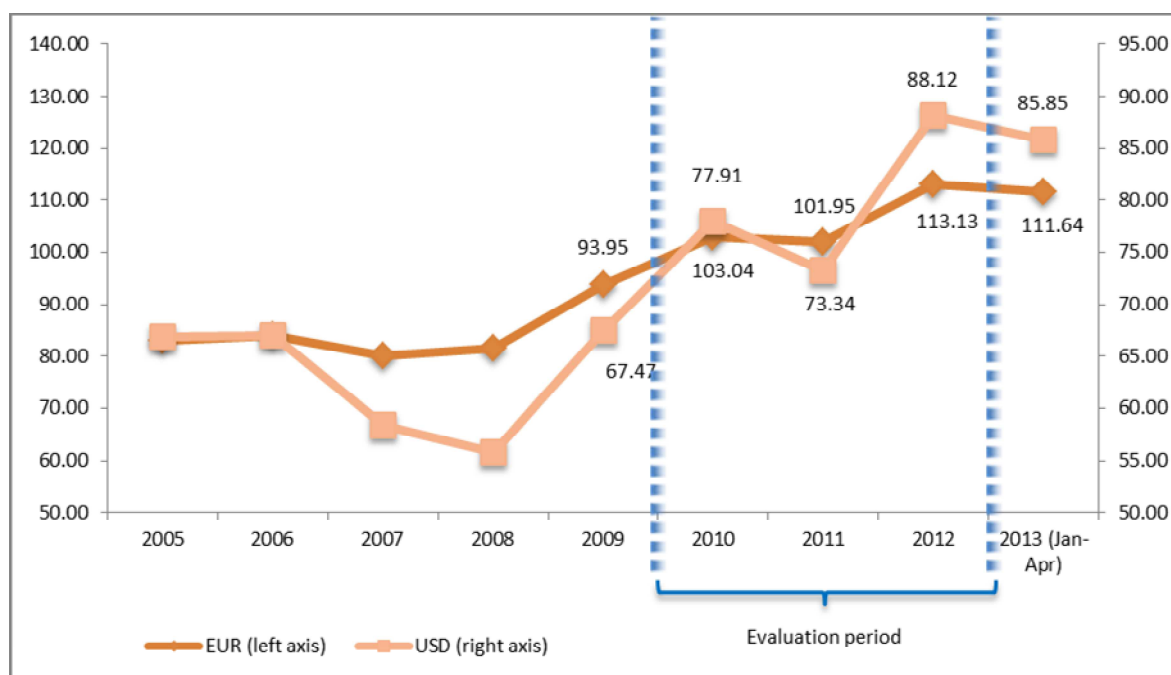


Source: National Bank of Serbia

After 2008, the Dinar depreciated against the main trading partners' currencies both in nominal and in real terms. Despite Serbia's persistently high inflation and a positive inflation differential with the EU and the US, RSD real effective exchange rate depreciated sharply from 2008 to 2010. From 2010 to 2011 the nominal exchange rate stabilised, while in real terms the Dinar appreciated against the basket of currencies of the main trading partners, almost returning to its pre-crisis levels, largely because of the persistently high inflation in Serbia.

The two main counterpart currencies for Serbia – both for financial transactions and trade – are the Euro and the US dollar. The following graph shows the Dinar nominal exchange rate evolution against the Euro and against the US dollar from 2005 to 2013:

Figure 8 - RSD nominal exchange rate against EUR and USD, 2005-2013



Source: National Bank of Serbia

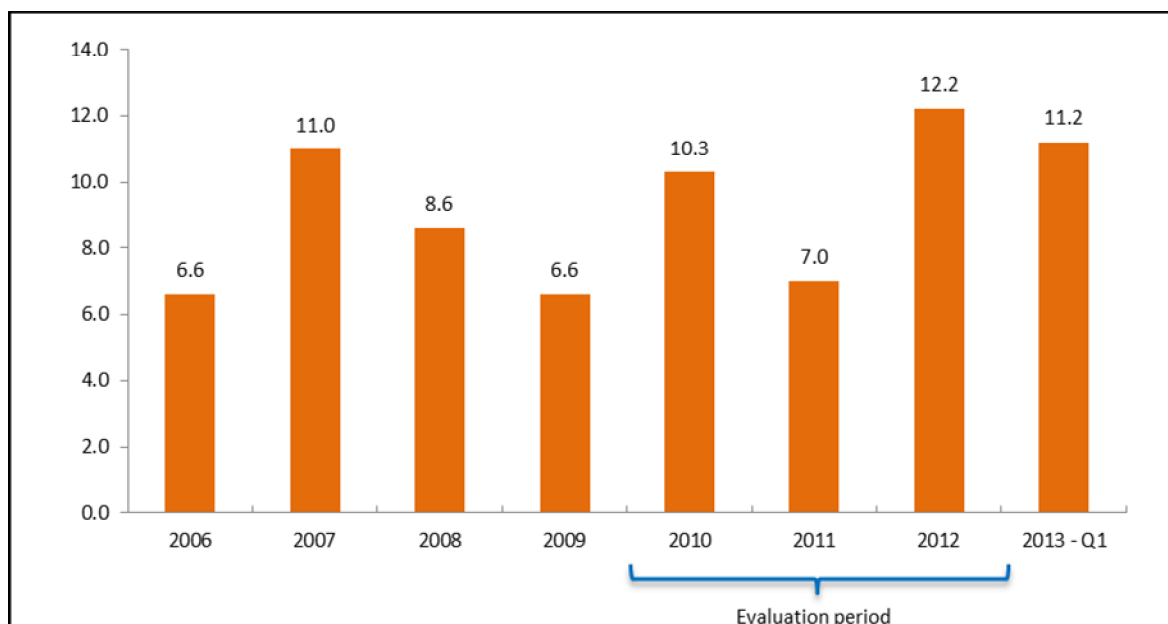
From 2008 to 2012, Dinar depreciated by 39% against the Euro and by 58% against the US dollar in nominal terms. Given that well over 90% of the Serbian public debt had been denominated in foreign currency, a considerable nominal Dinar depreciation against the debt-denomination currencies of the of this magnitude strongly contributed to increasing the debt burden. Over the evaluation period (2010-2012) the nominal depreciation of the Dinar against the euro was 9.8%. However, even this modest depreciation represented a serious increase in the debt burden. The public debt stood at EUR 12.157 billion (RSD 1252.695 billion) by the end of 2010. Given that the share of Euro-denominated liabilities represented 60.4% of the total public debt that year a depreciation of 9.8% applied to this share (RSD 756.6 billion) would induce an increase of RSD 74.1 billion over the two following years. The Dinar nominal depreciation increased the debt stock of 2010 by 6%. The 13.1% depreciation against the US dollar over the same period induced an increase of the debt stock by around RSD 23.6 billion, i.e.

Pass-through from exchange rate depreciation was another major driving force which increased the inflation rate up to 12% in 2012.

### Inflation

After the hyperinflationary episode of the 1990s and a strong inflation of the beginning of the 2000s, the increase in the consumer prices stabilised at a level of around 9% per year in the period 2006-2012. Inflation targeting strategy, adopted in 2006, coincides with a slightly lower inflation over after 2006 as compared to previous years. However, inflation remains rather high, in particular in comparison with other economies in transition (Croatia, Bosnia-Herzegovina, Romania...).

Figure 9 - Consumer prices (% , year-to-year), 2006-2013



Source: National Bank of Serbia

Over the period 2009-2012 the average inflation stood at 9% against 8.7% over the period 2006-2008. However, the years 2006-2008 immediately preceding the crisis were a period of high GDP growth – 4.3% per year on average – while in the period 2009-2012 real GDP growth was -0.7% per year on average. Thus, in 2009-2012 inflation was higher despite much lower GDP growth.

The surge in inflation in the period 2009-2012 had two main factors underlined during the structured interviews. The first factor has been the rise in energy (one of Serbia's main imports) and food prices affecting the country in 2011-2012. The second factor has been persistently high and auto-feeding inflation expectations inherited from the 1990s period. The National Bank of Serbia adopted the inflation targeting policy framework in 2006.

As mentioned before, a sharp consequence of the persistently high inflation has been a large "euroisation" of the Serbian economy. During the focus period 2009-2012, Serbian authorities' made efforts to reverse "euroisation". However, this strategy bore only limited fruits. Over the considered period, the share of loans in euro and indexed to euro made to Serbian households and firms went from around 80% in January 2009 to around 72% in May 2011. However, the share of deposits in EUR in the total deposits increased from around 71% to around 76% over the same period, evolutions partly explained by the strong nominal depreciation of the Dinar over the period. All Serbian government officials and private sector representatives interviewed mentioned the strong reluctance of the Serbian households to borrow and save in Dinars, something they explained as a consequence of the "hyperinflation hysteresis" of the 1990s.

**Table 13 - Currency composition of household savings, 2008-2012**

	2008	2009	2010	2011	2012
<b>Savings in Dinars</b>	2.49%	2.14%	1.79%	2.43%	1.90%
<b>Savings in foreign currencies</b>	97.51%	97.86%	98.21%	97.57%	98.10%

**Source: National Bank of Serbia**

The share of savings in Dinars of the Serbian households has been dismal through the period (2.15% on average) with little variation. The national currency serves mainly for transaction purposes. Persistently high and unstable inflation expectations explain the households' reluctance to save in Dinars.

"Euroisation" reduces the effectiveness of the monetary policy. Indeed, the impact of the movement of policy rates (in Dinars) has only a limited impact on the volume of lending, since most of the lending is done in euro (or other foreign currency). Therefore, the National Bank of Serbia is led to adapt its monetary policy to the currency structure of the economy.

A 'managed float' regime replaced the peg to euro in 2006. Therefore the National Bank of Serbia has officially no exchange rate target and intervenes only to smooth daily excess volatility. However given the share of foreign currency liabilities in the total burden of the external debt – both public and private – a sharp depreciation of the Dinar would lead to subsequent increase in the debt levels. This provides an incentive for the NBS to intervene in order to "cushion" the depreciation pace.

### **Public finance**

In the pre-crisis period (2006-2008), the fiscal policy had been strongly pro-cyclical with strong increases in capital expenditures, growth of the public wage bill and pensions. According to the IMF, fiscal tightening would have been instead required in 2006-2008 in order to contain external imbalances. Thus, Serbia met the crisis with little or no scope for countercyclical fiscal loosening. In fact, with the occurrence of the crisis the country faced a dilemma: allow automatic stabilizers to operate in full in order to preserve growth and domestic demand (i.e. maintain the same volume of spending while fiscal revenues are shrinking) or undertake a fiscal adjustment in order to preserve financial stability.

The table below represents the evolution of the fiscal receipts in 2010 and in 2011:



Table 14 - General Government revenues, 2010-2011

	2010 in RSD billion	2011 in RSD billion	Nominal growth in %	Real growth in %
<b>Public revenues</b>	<b>1223.4</b>	<b>1302.5</b>	<b>6.5</b>	<b>-4.1</b>
<i>Current revenues</i>	<i>1214.5</i>	<i>1297.8</i>	6.9	-3.7
Tax revenues	1056.5	1130.9	7.1	-3.6
Personal income tax	139.1	150.8	8.5	-2.3
Corporate income tax	32.6	37.8	16	4.5
VAT	319.4	342.4	7.2	-3.4
Excises	152.2	170.9	12.3	1.2
Customs revenues	44.3	37.8	-12.4	-21.1
Other tax revenues	46	43.5	-5.3	-14.7
Contributions	323	346.6	7.3	-3.3
Non-tax revenues	158.1	166.9	5.6	-4.9
<i>Capital revenues</i>	<i>1.4</i>	<i>2</i>	<i>40.9</i>	<i>26.9</i>
<i>Grants</i>	<i>7.4</i>	<i>2.6</i>	<i>-64.2</i>	<i>-67.7</i>

**Source: Ministry of Finance and economy of Serbia**

Regarding current revenues, general government receipts declined in real terms for all the items except the excises and the corporate income tax. There is a strong growth – both in nominal and real terms – of the capital revenues, but from an extremely narrow base.

Budget spending scenarios in the pre-crisis budgets were based on increasing tax receipts. After the shrinking of the tax base following the crisis, maintained levels of budget expenditures would have led to high and unsustainable structural fiscal deficits if no measures were taken. Thus, fiscal adjustment efforts were deemed necessary and a fiscal consolidation programme was agreed upon with the IMF. Within the IMF SBA, in the framework of fiscal consolidation, a medium-term objective of the wage bill of the government limited to 8% of GDP by 2015 was established. In order to meet this target, the government planned to undertake the following measures:

- Freeze of public employees' nominal wages (also affecting for local government utilities and ten largest state-owned enterprises) and freeze in nominal pensions in 2009-2010
- Fiscal responsibility legislation establishing binding nominal ceilings on the general government wage and pensions bills for 2011-2012

In 2009 the government also planned cuts in public staff expenditures by about 10% by April 2010 along with a hiring freeze. However, these cuts could not be achieved as planned in the Law of December 2009 and were reported to 2010. A hiring freeze was established for 2011.

The fiscal responsibility legislation involved the incorporation in the Budget System Law of quantitative fiscal rules establishing a 1% medium-term deficit target and a

gross public debt limit of 45% of GDP. The deficit was allowed to exceed the thresholds implied by the fiscal rule by the amount of public investment exceeding 4% of GDP in 2011 and 5% over 2012-2015. A detailed presentation of the quantitative fiscal rules and the role of the MFA in their implementation and shaping are presented in detail in the corresponding sections and in the dedicated case study. Along with fiscal responsibility legislation, the Budget System Law of 2010 introduced three-year expenditure frameworks in order to improve budget preparation and medium-term planning.

The fiscal responsibility legislation also incorporated rules regarding indexation of public wages and pensions. Regular semi-annual indexation of wages was set to start in January 2011 with the first indexation of public wages and pensions capped at 2%. Two additional indexations were to be undertaken in May and November 2011. The indexation rule specified the adjustment of public wages and based on CPI inflation during the previous six months and ½ of the real GDP growth rate (if positive) of the previous year for April 2011 and April 2012, and adjustment based only on CPI inflation during the previous six months for October 2011. From then on, public wages and pensions should be indexed semi-annually on CPI inflation. The fiscal policy also involved freezing of the amount of subsidies in 2011 at their nominal level of 2010 and the use of the privatization proceeds to reduce interest payments on the public debt through anticipated reimbursement of a portion of Serbia's high-interest debt.

The table below describes the evolution of the general government expenditures in 2010 and in 2011:

**Table 15 - General Government expenditures, 2010-2011**

	<b>2010</b> <i>in RSD billion</i>	<b>2011</b> <i>in RSD billion</i>	<b>Nominal growth</b> <i>in %</i>	<b>Real growth</b> <i>in %</i>
<b>Public expenditures</b>	<b>1359.9</b>	<b>1460.9</b>	<b>7.4</b>	<b>-3.2</b>
<i>Current expenditures</i>	<i>1224.8</i>	<i>1324.7</i>	<i>8.2</i>	<i>-2.6</i>
Expenditures for employees	308.1	342.5	11.2	0.2
Purchase of goods and services	202.5	216.3	6.8	-3.8
Interest repayment	34.2	44.8	31	18.1
Subsidies	77.9	80.5	3.4	-6.9
Social insurance and assistance	579.2	609	5.1	-5.3
of which pensions	394	422.8	7.3	-3.3
Other current expenditures	22.9	31.7	38.1	24.4
<i>Capital expenditures</i>	<i>105.1</i>	<i>111.1</i>	<i>5.8</i>	<i>-4.7</i>
<i>Net lending</i>	<i>30</i>	<i>25</i>	<i>-16.6</i>	<i>-24.9</i>

**Source: Ministry of Finance and economy of Serbia**

General government expenditures declined in volume terms for almost all the expenditure items since nominal growth of different items was lower than the inflation rate. Nevertheless, the decline of expenditures (-3.2% in volume) was less pronounced on average than the decline in fiscal revenues (-4.1% in volume), pushing up the fiscal deficit in real terms. In addition, two items exhibited strong real growth – albeit their weight in the total expenditures is modest – “interest repayments” (due mainly to Dinar depreciation) and “other current expenditures”. From the point of view of structure of public expenditures, since capital expenditures – public investment – declined more, in volume terms, than the current expenditures, which is likely to generate an adverse economic impact over the years to come.

The adoption of an expansionary fiscal decentralization law in late 2011 and later relaxation of the fiscal stance damaged the fiscal consolidation efforts. As a result, fiscal deficits continued to increase as a percentage of GDP through all the period 2009-2012, reaching -6.4% in 2012 as compared to -2.6% in 2008.

The following figure shows the evolution of the fiscal deficit over the period 2005-2012:

**Figure 10 - Fiscal balance of Serbia, 2005-2012, in % of GDP**



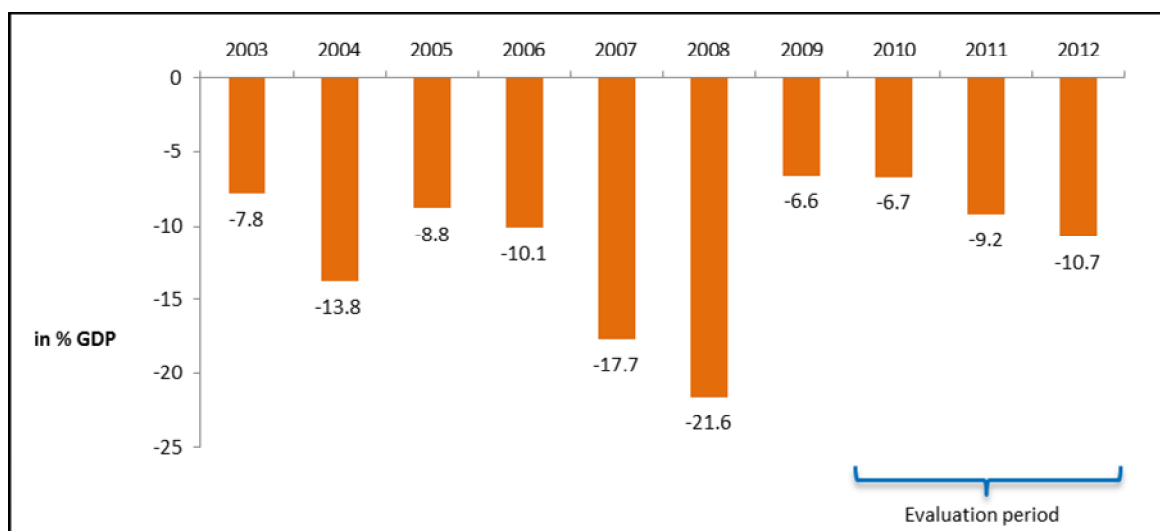
**Source: Ministry of Finance and Economy of Serbia**

In spite of the fiscal consolidations efforts undertaken since 2009 and the fiscal responsibility framework, the fiscal deficit has been continually increasing as a percentage of GDP. This increasing fiscal deficit was a major driver of the increase in public debt – the evolution is examined in one of the later sections – beyond the legally binding level of 45% of GDP.

## Balance of payments

In the pre-crisis period Serbian economy had exhibited high and growing current account deficits matched by corresponding capital and financial account surpluses. The current account deficits had corresponded mainly to external borrowing to fund domestic consumption and foreign direct investment. After the outbreak of the crisis in 2008-2009 current account deficit contracted sharply: down to -6.6% of GDP in 2009 and -6.7% of GDP in 2010 from the record high of -21.6% of GDP in 2008. The following table shows the current account balance evolution from 2002-2012:

**Table 16 - Current Account Balance of Serbia, in % of GDP, 2003-2012**



**Source: National Bank of Serbia**

According to the IMF, Serbia had to face the global financial storm from a severely unbalanced external position, with high external debt levels adding to its vulnerabilities. At the moment of the crisis the current account deficit reached 21.6% of GDP (in 2008). The period 2009-2012 brought in a sharp and fast adjustment by 15 percentage points of GDP from 2008 to 2009, largely explained by the improvement of the trade balance subsequent to the Dinar depreciation and shrinking domestic demand which led to lower imports. This correction of the trade balance was attained thanks to imports falling by a larger value than exports. In the following years the current account deficit growth resumed with the current account balance standing at -10.5% of GDP in 2012, reaching its level of 2006. Albeit this figure is half of the 2008, this large current account deficit arises in the context of slow growth – unlike in 2008. In fact, the nature of the current account deficit changed from the pre-crisis years. In the years preceding the crisis, current account deficit was fuelled by booming private consumption funded by extensive external borrowing (which explains high levels and growth rates of the private external debt). By contrast, current account deficit surge in 2011-12 is largely a 'twin deficit' phenomenon: fiscal deficit fuels growth of the current account deficit.

Table 17 - Serbia: Balance of Payments, 2007-2012 (in EUR)

	2007	2008	2009	2010	2011	2012
<b>I. CURRENT ACCOUNT</b>	-5,052.5	-7,054.2	-1,910.1	-1,887.2	-2,870.0	-3,155.1
<b>I. a) CURRENT ACCOUNT BALANCE, BEFORE GRANTS</b>	-5,218.9	-7,216.8	-2,107.6	-2,080.3	-3,076.2	-3,299.4
3. Goods and services balance (3.1.-3.2.)	-7,329.9	-8,685.9	-4,925.8	-4,573.3	-5,155.2	-5,297.4
3.1. Export goods and services	8,686.5	10,157.3	8,477.8	10,069.6	11,471.9	11,913.4
3.1. Import goods and services	-	-	-	-	-	-
	16,016.4	18,843.2	13,403.6	14,642.9	16,627.1	17,210.9
4. Income	-598.7	-921.8	-502.5	-669.9	-757.9	-798.5
4.2. Expenditure	-1,115.6	-1,479.9	-1,002.1	-1,107.5	-1,186.2	-1,345.7
5. Current transfers	2,876.1	2,553.6	3,518.2	3,356.0	3,043.1	2,940.8
5.1. Receipts	3,104.7	2,828.3	3,762.0	3,624.0	3,394.2	3,280.6
5.2. Expenditure	-228.6	-274.7	-243.8	-268.0	-351.0	-339.8
<b>II. CAPITAL ACCOUNT</b>	-313.9	13.2	1.6	0.9	-2.5	-10.8
1. Receipts	14.9	16.5	5.5	3.0	2.7	1.1
2. Expenditure	-328.8	-3.3	-3.9	-2.1	-5.2	-11.9
<b>III. FINANCIAL ACCOUNT</b>	5,175.6	7,133.3	2,032.6	1,818.5	2,693.8	2,883.2
1. Direct investment - net	1,820.8	1,824.4	1,372.5	860.1	1,826.9	231.9
2. Portfolio investment - net	678.2	-90.9	-51.0	38.8	1,619.1	1,665.9
3. Other investments	3,418.7	3,713.2	3,074.6	-9.1	1,049.2	-151.7
4. Reserves Assets (-increase) <sup>4</sup>	-742.1	1,686.6	-2,363.5	928.7	-1,801.5	1,137.2
<b>IV. ERRORS AND OMISSIONS - net</b>	190.8	-92.3	-124.1	67.8	178.7	282.6
<b>OVERALL BALANCE</b>	742.1	-1,686.6	2,363.5	-928.7	1,801.5	-1,137.2

Source: National Bank of Serbia

Net foreign direct investment declined by 24% from 2008 to 2009 and by more than 50% over the two years period 2008-2010. A temporary recovery of 2011 – when the net FDI returned to its pre-crisis level – was followed by a new record fall: at the end of 2012 the net FDI stood at around 12.7% of its 2008 level. The main factor driving the change in the net FDI was the decline of equity capital: in 2008 foreign investors' investment in the Serbian firms increased by EUR 1.3 billion, in 2012 an outflow of capital amounted to around EUR 580 million.

**Table 18 - Republic of Serbia: Financial Account, 2011 (in million EUR)**

<b>III. FINANCIAL ACCOUNT</b>	<b>2,693.8</b>
<b>2. Portfolio investment - net</b>	<b>1,619.1</b>
2.1. Assets (claims)	67.0
2.1.1. Equity securities	-4.4
2.1.2. Debt securities	45.1
2.1.3. Financial derivatives	26.3
2.2. Liabilities	1,552.1
2.2.1. Equity securities	49.5
<b>2.2.2. Debt securities</b>	<b>1,503.6</b>
2.2.3. Financial derivatives	-1.0
<b>3. Other investments</b>	<b>1,049.2</b>
3.2. Liabilities	493.4
3.2.2. Loans <sup>3</sup>	-394.6
3.2.2.1. National bank of Serbia	44.8
3.2.2.1.1. Long-term	44.8
<b>-drawings</b>	<b>51.7</b>
-repayments	-6.9
3.2.2.1.2. Short-term	0.0
3.2.2.2. General government	687.5
3.2.2.2.1. Long-term	687.5
<b>-drawings</b>	<b>963.2</b>
-repayments	-275.7
3.2.2.2.2. Short-term	0.0

**Source: National Bank of Serbia**

The Macro-Financial Assistance is recorded under General government's long-term drawings, while the Serbian government total gross external borrowing is recorded under General government long term drawings and under Portfolio investment, debt securities (alongside private debt paper). The total external borrowing of the Serbian government in 2011 amounted to 1.517 billion EUR.

The IMF loan is recorded under National Bank of Serbia's long-term drawings amounting to 51.5 million EUR of 2011.

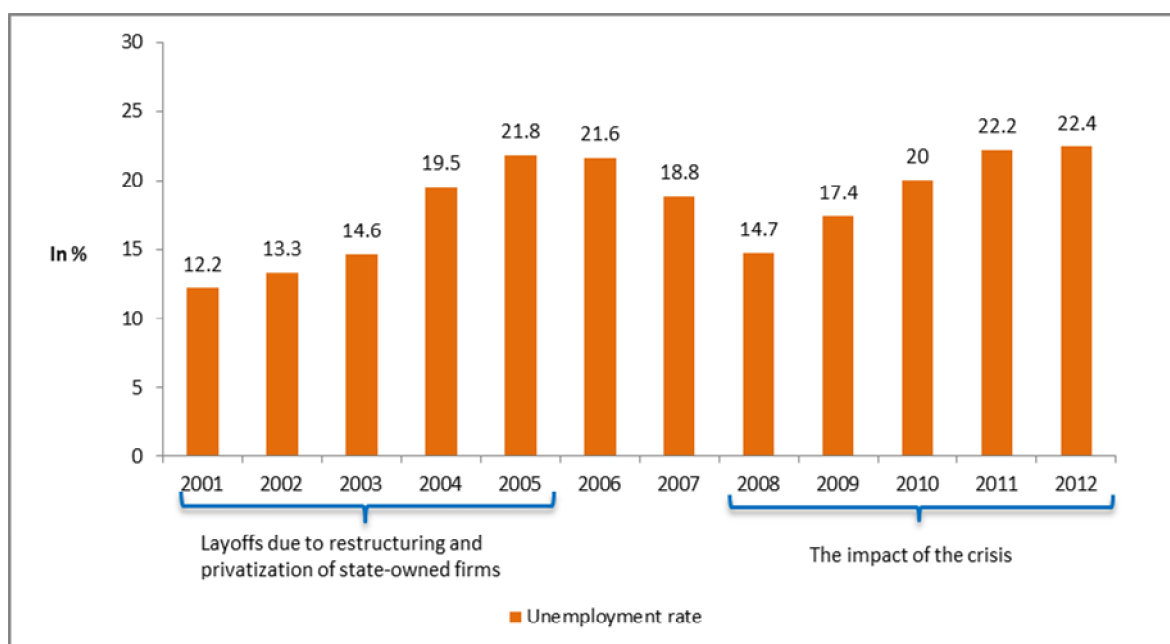
### **Labour market: persistently high unemployment**

Serbian population has been shrinking at a growing rate since 1992. From 1992 to 2011 population of Serbia declined by around 9.5% due to the negative natural increase. 1992 was the first year when the number of deaths exceeded the number of births and this gap has been ever growing since then. The activity rate declined approximately in the same proportion (by seven percentage points between 2004 and 2011, from 66.4% to 59.4% of the total population) reflecting the aging of the Serbian population.

One of the features of the Serbian economy is the remarkably and persistently high unemployment rate. Through the whole decade 2000-2010 the unemployment rate had remained high despite a decline in population (which in the short run opens new job vacancies as the number of retiring exceeds the number of new entrants on the labour market) and strong GDP growth (which usually goes hand in hand with job growth).

The following graph displays the evolution of unemployment from 2001 to 2012 encompassing the evaluation period 2010-2012:

**Figure 11 Unemployment rate, Serbia, 2001-2012**



**Source: IMF**

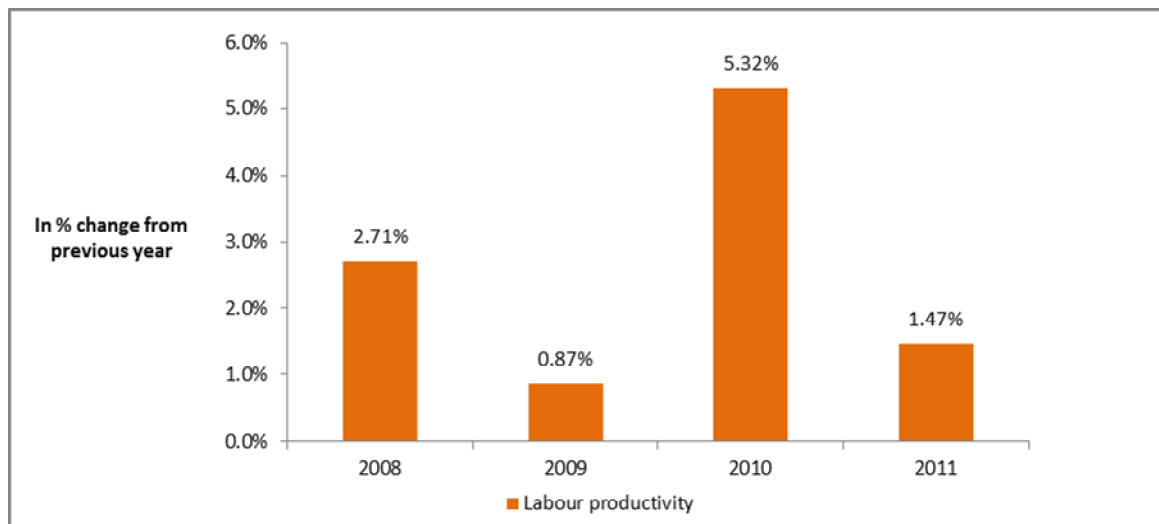
As shown on the graph, Serbian economy underwent two phases of rising unemployment. During the first phase, in 2001-2005 the increase in the unemployment rate was driven mainly by the privatization and restructuring of the inefficient state-owned or collectively owned enterprises. Labour productivity growth (see Figure 2 - Serbia's labour productivity growth, 2002-2008) exceeded real GDP growth – 7.58% per year for the former, 5.25% per year for the latter – thus economic expansion was accompanied by growing rate of unemployment. The unemployment rate culminated at 21.8% in 2005.

Over the next three years unemployment rate fell sharply, down to 14.7% in 2008. Labour productivity fell in 2006 (by 1.6%) and stood at 4.5% per year in 2007 and 2008, much lower than its rate in 2002-2005 and below real GDP growth in 2006 and 2007.

The second phase of unemployment growth was initiated by the crisis: from 2008 to 2012 unemployment increased by 7.7 percentage points of GDP. During the MFA evaluation period (2010-2012) unemployment stabilised at a high level: 20%-22.4%. In 2009 and 2010 labour productivity growth (see graph below) exceeded sharply the real GDP growth.

The following figure shows labour productivity growth rates in Serbia over the period 2008-2012:

**Figure 12 - Serbia's labour productivity growth, 2008-2011**



*Source: Statistical Office of the Republic of Serbia, PwC calculations*

Before the crisis Serbian labour productivity growth was among the highest of the regional transition economies with a comparable level of capital per capita (see Figure 2 - Serbia's labour productivity growth, 2002-2008).

Upon the start of the crisis Serbian economy experienced a slowdown in labour productivity growth. The average labour productivity growth represented 2.6% in 2008-2011 against an average of 5.5% over the period 2002-2007. Only in 2010 did the Serbian labour productivity grow in line with its pre-crisis trend.

#### **MFA macroeconomic impact potential**

The year 2011 – the MFA disbursement year – was the best year so far in terms of GDP growth since the outbreak of the crisis (given that 2013 figure corresponds to the first quarter). However, given its relative volume (0.32% of GDP), the MFA loan is unlikely to have produced a significant impact on the main macroeconomic aggregates of Serbia. As far as the main macroeconomic aggregates are concerned, there is no break in series – either adverse or favourable – that could be meaningfully attributed to the MFA or in which an MFA contribution could be detected or implied analytically.

From a qualitative point of view, although the peak of the crisis of 2009 is behind the Serbian economy, its position is fragile due to numerous risks (exchange rate shock, external trade shock, sharp and sudden capital outflows) and challenges (widening fiscal deficit, growing public debt, slow GDP growth). Thus, IMF and MFA programmes were not followed by a favourable change in macroeconomic trends.

However, in spite of persistently mediocre macroeconomic perspectives, **one qualitative achievement of the MFA and the IMF was to prevent the Serbian economy from slipping into a major economic crisis** that was not excluded in 2009-2010. This has been done through the direct financial support as well as through the signalling to private actors about the IMF and the EU intention to offer to Serbia a financial safety net in case risks would have materialized.



## Counterfactual analysis

This section presents an assessment of the net impact of the Macro-Financial Assistance (MFA) on the macroeconomic stabilisation of Serbia. In doing so, it seeks to answer the question of how the macroeconomic situation of Serbia would have evolved without the support of the MFA – the Counterfactual Analysis. The description of the macroeconomic outcomes relies on indicators whose values are estimated on the assumption that the MFA was not granted.

The MFA was part of the financial assistance package provided along with the IMF. Thus, the net macroeconomic impact is assessed both for the MFA alone (in 2011) and for the MFA jointly with the IMF (in 2011). In addition, and for the sake of completeness, the impact of the IMF financial assistance is assessed for 2010.

From the structured interviews we understood that the MFA was *a priori* expected to make a difference to the Serbian economy even if to a small extent, since when it was disbursed in July 2011, the Serbian government had fewer sources to borrow from than today. In 2011, when the MFA funds were disbursed, the global financial crisis was ongoing, financial conditions improved only in 2012 and the MFA could actually have been more needed in 2011 than in 2009.

To assess the possible impact of the MFA on the Serbian economy, we need to take into account the channels through which the MFA and the IMF loans aimed at impacting the economy. The MFA funds had been disbursed on the foreign currency account of the National Bank of Serbia (NBS), which then transferred an equivalent amount in Serbian Dinars (RSD) to the Treasury, as and when requested by the line ministries, so that these funds could be used for budgetary purposes.

Therefore, the MFA is expected to impact the main macroeconomic indicators (GDP, consumption, investment) through the fiscal balance channel; counterfactually, an absence of the MFA would have led the Serbian government to seek for alternative sources of funding or to cut the public expenditure.

In contrast to the MFA, the IMF loans were used exclusively to increase the foreign currency reserves of the NBS; this was confirmed during our discussion with the NBS. Thus, the absence of the IMF loans would impact the economy and its main aggregates through the current account adjustment required to balance the worsening of the capital account balance of the fall in the volume of the FX reserves of the NBS.

According to structured interviews, at the time when the Stand-By Arrangement was negotiated with the IMF – December 2008, January 2009 – a *precautionary* SBA made sense: foreign currency reserves of the National Bank of Serbia were relatively high, but the country's political situation was difficult due to fragmentation. The upgrade to exceptional access – in March 2009 – was undertaken partly because of the fiscal deficit, the budget deemed unrealistic, a huge increase in pensions in 2008 (30-40 billions more, after years of strong growth and when crisis was not foreseen) and the export drop.

### **Relative weight of the MFA and IMF funding**

Before assessing its possible impact on different macroeconomic indicators, it is important to give the order of magnitude of the MFA and IMF funds in order to judge their relative importance for the Serbian economy:

- The EUR 100 million of Macro-Financial Assistance was **6.6% of the total general government gross external borrowing** in 2011 which stood at 1.517 billion EUR<sup>10</sup>.
- The Gross Domestic Product of Serbia in 2011<sup>11</sup> stood at around EUR 31.45 billion, therefore the MFA represented **0.32% of the Serbian GDP**.
- The fiscal deficit of Serbia in 2011 stood at EUR 1,130 million, therefore the MFA funds covered **8.85% of the fiscal deficit**.

These purely factual quantitative comparisons give a preliminary insight into the possible magnitude of impact of the MFA on different macroeconomic indicators.

Similarly, we provide the order of magnitude of the IMF funds for 2010 and 2011 (years when the IMF assistance was made available):

- At the beginning of **2010**, foreign currency reserves of the NBS stood at around EUR 10.6 billion. During this year the foreign currency reserves declined by around EUR 600 million, while the total **IMF assistance** represented an inflow of EUR 344 million. The NBS has been mandated to maintain its foreign exchange (FX) reserves at the level of at least six months of imports, all FX reserves in excess of this level is considered "free". From 2009 to 2010, the ratio of FX reserves to the months of imports of goods and services went from 9.5 to 8.2, while the "free" reserves declined from EUR 3.9 billion at the beginning of 2010 to EUR 2.68 billion by the 31 December of 2010. The IMF financial assistance represented 28% of the absolute value of the **change in the "free reserves"** and **57.3%** of the absolute value of the **change in the total foreign currency reserves**.
- In **2011**, foreign currency reserves of the NBS stood at around EUR 10 billion at the beginning of the year and EUR 12.1 billion by the end of the year, covering 8.2 months of imports at the beginning of the year and 8.7 months of imports at the end of the year. "Free" reserves increased by EUR 1,061 million. The IMF assistance in 2011 represented EUR 51.7 million. Thus, the IMF assistance represented **2.5% of the increase in the total FX reserves** of the NBS for that year and around **4.9% of the change in its "free" reserves**.

In order to assess the impact of the MFA loan and the IMF loans on the Serbian economy, this counterfactual analysis simulates what would have happened if the MFA and/or the IMF had not been awarded. In doing so, we are required to make assumptions about the actions of the Government of Serbia to the shortfall of EUR 100 million if the MFA did not exist or had not been awarded. Thus, in our counterfactual analysis we examine two main counterfactual scenarios:

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<sup>10</sup> Public Finance Bulletin, April 2012, Ministry of Finance and Economy

<sup>11</sup> RSD 3,208 billion Converted at the average RSD/EUR exchange rate of 102 Dinars for one Euro.

- In the **first scenario, the MFA was not provided at all**, while the IMF financial assistance was provided in full for both 2010 and 2011. This is the “no MFA” (or IMF only) counterfactual set-up which allows the inferring of the macroeconomic added value of the MFA.
- In the second **scenario, neither the MFA assistance nor the IMF assistance was provided** (neither for 2010 nor in 2011 for the latter). This is the “no IMF, no MFA” counterfactual scenario which allows the inferring of the added value of the IMF and MFA assistance combined.

These are the two main counterfactual set-ups matching the Terms of Reference and provide the answers to the two key questions: 1) what would have happened if only the IMF assistance was granted, but not the MFA and 2) what would have happened if neither the IMF nor the MFA were granted.

### **1<sup>st</sup> counterfactual scenario: no MFA in 2011**

In this scenario we examine what would have happened had the MFA not existed (or not been awarded). This corresponds to the loan of EUR 100 million not being disbursed in July 2011. We also assume that the IMF loans are fully disbursed through the period 2009-2011 (as it occurred in reality) so as to find out the effect of the MFA separately from the IMF financial assistance.

The absence of the MFA funds would have immediately and directly impacted the economy through two channels:

- A need for alternative source of financing the portion of the budget deficit equivalent to the volume of MFA funds
- Lower capital account surplus and i) either the corresponding reduction of the current account deficit, or ii) the substitution within the capital account of the MFA loan by another source of external funding, or iii) the mix of the previous

The outcomes of this counterfactual set-up are therefore dependent on the actions that Serbian authorities would have taken in absence of the MFA. We assume that had the MFA not existed, the authorities had three possibilities – mentioned and validated through the interviews conducted with Serbian stakeholders – to cover the corresponding shortfall of funds:

- Borrow domestically (from domestic banks)
- Borrow abroad (on capital markets or from foreign banks)
- Cut budget expenditures by a corresponding amount
- Increase taxation (more specifically the VAT)

In order to assess which action the Serbian government would have been the most likely to take, we submitted this question to the participants of the Delphi.

The Delphi analysis gave the following probabilities:

Serbian government action	Lowest value	Highest value	Average
Increased VAT	0	50	12%
Decreased public expenditure	0	50	9%
Borrowed more from the Domestic banks	25	100	<b>43%</b>
Borrowed more abroad (from the banks or through sovereign debt emission)	0	90	<b>37%</b>

Thus, borrowing from the domestic banks is the most probable hypothesis, followed by borrowing abroad, while increase in VAT and decrease in public expenditure were deemed highly improbable by the Delphi participants. This is in line with the findings of our structured interviews where the respondents were overwhelmingly convinced that in absence of the MFA loan the Serbian government would have borrowed from domestic banks or abroad. By contrast, a decrease in public expenditures was deemed highly improbable, especially in a pre-electoral period. According to the IMF, proximity of elections is likely to be associated with a lax fiscal stance. In addition, the financing constraint relaxed around mid-2009 with growing demand for domestic T-bills, then with Serbia's issuance of Eurobond in the second half of 2011 and in 2012. Thus, it is highly improbable that the Serbian government would have increased the VAT or decreased the expenditures by the equivalent of EUR 100 million few months before the Parliamentary and Presidential elections, especially given that, according to the IMF, failure to meet fiscal targets set by the fiscal responsibility legislation was largely due to expenditure overruns.

Thus, we keep two baseline scenarios for our counterfactual analysis: in one scenario the government compensates the absence of the MFA loan by borrowing from domestic banks, in the second one – the government borrows abroad.

### **Counterfactual scenario A: government borrows from domestic banks**

In this counterfactual scenario, the absence of the MFA loan of EUR 100 million is compensated for by the Serbian government borrowing an equivalent amount from domestic banks in 2011. During the structured interviews with various stakeholders, including representatives from the Serbian government, domestic borrowing was considered the most plausible hypothesis.

Faced with increased credit demand from the government domestic banks can increase their balance sheet exposure to the Serbian public debt or reduce the credit to the private agents (crowding out). In the first case scenario, the adjustment occurs through a substitution within the capital account of government borrowing by private borrowing (domestic banks borrow additional funds abroad to match the increased lending to the government).

In reaction to the extension of the credit to the government in this scenario we consider it realistic that some crowding out of the private borrowing occurs. It is empirically difficult to estimate the extent of crowding out characteristic to the Serbian economy. Thus, we make a hypothesis that EUR 100 million of additional borrowing from the government is half compensated by additional borrowing abroad and half compensated by a corresponding reduction in lending to private agents. It is plausible that crowding out, if it would have occurred, would have been smoothed over

the following years. Thus, the impact on macroeconomic aggregates in this scenario is the present value of the impact on Serbian economy over few following years rather than an impact in 2011 only.

The following table shows the corresponding results for different key macroeconomic indicators:

**Table 19 - Effects of no MFA, 2011 under the assumption of domestic borrowing**

Macroeconomic indicator	Percentage change	Actual value in % of GDP	Counterfactual value in % of actual GDP	Change in percentage points of the actual GDP
Gross Domestic Product (at market value)	-0.05%	100	99.95	-0.05
Consumption	-0.068%	76.96	76.91	-0.05
Investment	-0.04%	20.14	20.14	-0.00
Current Account balance	-0.23%	-9.16	-9.14	+0.02
Capital Account balance	-0.23%	9.16	9.14	-0.02
Nominal exchange rate	0.0056%	-	-	-

**Source: PwC computations**

In this scenario, 9.8% of the fiscal deficit (i.e. 0.35% of GDP) which were previously covered by the MFA has to be financed from other source.

This counterfactual scenario indicates that had the Serbian government borrowed EUR 100 million from domestic banks, the **Gross Domestic Product would have been up to 0.05% lower.**

Please note that this table does not describe the true counterfactual impact of no-MFA on the GDP. It sets the upper bound of the impact as it refers to one specific hypothesis that half the additional borrowing goes through domestic banks which subsequently reduce the volume of lending to the private sector. Our model shows that half of the adjustment goes through the contraction of investment and consumption (or increase of savings). In reality, it is very likely that the borrowing would have been more from abroad or that the domestic banks would borrow abroad a more important portion of the additional lending to the government instead of contracting the private sector lending. In this case the impact on GDP would have been lower indeed. However, under the hypothesis of government borrowing from the domestic banks that do not increase their foreign borrowing by the full amount of the additional lending to the government, there is indeed a subtraction of funds from the private sector: government has to cover the deficit; it borrows from domestic banks which reduce the amount of lending to private sector by 50 million which are subtracted from consumption and investment. The global impact on GDP under this hypothesis would have been -0.05. The MFA funds – EUR 100 million – represented 0.32% of Serbian GDP over 2011, so the magnitude of the impact is plausible.

In the crisis and near-recessionary context, credit rationing is stronger than under normal circumstances. Thus, if the government was led to borrow an equivalent of 0.32% of GDP from domestic banks, it would have reduced the volume of funds

available for domestic borrowing by private agents. Increased public borrowing would at least partly evict private borrowing from households and firms resulting in a decrease in consumption and investment (the figures of the counterfactual scenario confirm this). This, in turn, would have produced the corresponding adjustment through the reduction in the current account deficit (through a reduction in imports). Given that in 2011 the Serbian economy was still recovering from the 2009 recession, GDP growth rate was weak and, in particular, well below its 2000s average, the multiplicative effects of lower investment and lower consumption would have been plausibly strong.

Thus, the negative impact of “no MFA” is explained by the “crowding-out effect” of private borrowing by the public borrowing (i.e. reduction in the volume of credit to the private sector) and the multiplicative effects of reduction in the volume of credit on business activity and private consumption.

This scenario sets an upper bound on the possible impact of MFA on GDP and other macroeconomic indicators. Indeed, this scenario relies on the assumption that half of the balance of payments adjustment following the absence of the MFA is carried out through the current account deficit contraction. In other words, the government borrows the entire amount equivalent to the amount of the MFA from domestic banks – Serbian banks and foreign banks’ affiliates in Serbia – and these banks do not increase their borrowing abroad by the full amount of what they lend to the government. Half of the increase in the volume of credit to the Serbian government is equivalent to the decrease in the volume of credit to the private sector. The monetary survey of the NBS shows that the credit growth contracted sharply from 2010 to 2011 (the volume of credit to households and firms) and overall the volume of credit grew by around RSD 87 billion. The MFA funds represented around RSD 10.2 billion (11.78%) of the growth in loans to households and firms. Thus, an eviction by the government borrowing would induce a slowdown in credit growth with repercussions on the real sector. Furthermore, the actual volume of credit for households and firms declined from July to October 2011, eviction by government borrowing during the same period would accentuate this decline.

The public debt of Serbia stood at RSD 1,513,796 million by the end of 2011<sup>12</sup>. Considering that the proportion of debt in foreign currency represented 83.8% of the Serbian public debt on that year, a Dinar depreciation – which we assume would be similar across all the foreign currencies – of 0.00056% would increase the stock of debt outstanding by RSD 7,104,942 (not counting future interest payments). Thus, in the event of realization of this scenario the substitution of the private domestic debt to the MFA debt would have induced an increase in public debt by around RSD 7.1 million due to the exchange rate shift.

### **Counterfactual scenario B: government borrows on capital markets or from foreign banks abroad**

An alternative hypothesis regarding the coverage of the EUR 100 million in fiscal revenue evoked by Serbian policy makers is that the Serbian government would have borrowed abroad. In this counterfactual scenario, the short-run impact of the MFA on GDP, as well as on private consumption and investment levels is reduced to zero or near-zero because the adjustment goes entirely through the capital and financial account with the substitution of the MFA loan by other loans. Domestic savings do not have to adjust and the volume of credit and of private borrowing follows the same patterns as in the actual evolution. The effects on other macroeconomic indicators in this scenario would equally stand at zero or near zero.

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<sup>12</sup> Source: Republic of Serbia, Ministry of Finance, Public Finance Bulletin, December 2011

The only immediate impact concerns the increase in the present value of the stream of future debt payments as foreign private debt – which would have been likely to be more expensive – would have been substituted to the MFA debt. The impact on debt and fiscal sustainability is covered in the corresponding section.

A sub-scenario where the government would have borrowed from domestic banks which in turn, instead of reducing the volume of lending, borrow an equivalent amount from abroad would yield close-to-identical results as far as the macroeconomic indicators are concerned: there is no impact on investment and consumption because the volume of credit is unchanged. The stock of public external debt would have decreased by EUR 100 million compared to the actual situation<sup>13</sup>, while the stock of private external debt would have increased by the same amount.

During structured interviews with World Bank representatives the latter evoked a possibility of the World Bank increasing the volume of its budget support loans if the MFA had not been granted. The counterfactual effects of the realization of this sub-scenario for the level of GDP, consumption and investment would have been identical to the counterfactual effects of the government borrowing abroad (i.e. zero or near-zero). The only difference resides in that the terms and conditions of World Bank loans would have differed from that of the commercial loans. Lending conditions associated with the budget support loans from the World Bank would have been close to that associated to the MFA, leaving the macroeconomic aggregates identical or almost identical to the actual figures.

### ***Assessment of the counterfactual impact of the MFA on the Serbian macroeconomic stabilisation***

The counterfactual analysis presented in the previous paragraphs incorporates two counterfactual scenarios which differ by the authorities' action aimed at covering the shortfall of EUR 100 million as no MFA is awarded. These two scenarios give a range of counterfactual values of the macroeconomic indicators of interest.

In the absence of the MFA, the **GDP would have been expected to be between 0% and 0.05% lower** than its actual level. Similarly, consumption would be between 0% and 0.05% lower and investment between 0% and 0.04% lower than in reality.

The two scenarios above assume that each response from the government would have relied upon only one alternative source of funding. Therefore, one could argue that the government's response would have involved mixed sources of funding, for instance, by covering the EUR 100 million by borrowing 50% of the sum abroad and 50% domestically. A hypothetical set of  $n$  scenarios, each with a different mix of alternative funding solutions, would generate a corresponding set of values of macroeconomic indicators.

In evaluating the counterfactual effects of the absence of the MFA we make a restrictive assumption that all of the effects will take place over the same year (2011). This assumption is likely to overestimate the impact of the MFA. However, the counterfactual impact on GDP, consumption and investment smoothed over the next few years and further on is difficult to estimate non-speculatively given that not all the required data is available (and in particular none is available after 2012).

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<sup>13</sup> The stock of public debt would have been unchanged, with simply EUR 100 million of internal debt replacing the same amount of external debt (MFA).

As an overall conclusion, we find a probable non-zero **impact of the MFA loan** on the Serbian economy and **on the macroeconomic stabilisation** of Serbia. However, this impact is likely to have been **limited**. The only scenario where the MFA would have made a difference with respect to alternative means of covering the corresponding fiscal deficit is probably the comparison with the fiscal expenditure cuts which in a low growth context would have aggravated coming 2012 recession. However, the realization of this scenario had been deemed highly improbable by the participants of the Delphi analysis and the Serbian public officials during the structured interviews.



## **2<sup>nd</sup> counterfactual scenario: no MFA and no IMF Funds**

In this counterfactual set-up it is assumed that the IMF assistance was not provided in 2010 and 2011 and the MFA was not provided in 2011. Of course, the 2010 counterfactual analysis applies solely to the IMF financial assistance, as no MFA funds were disbursed in 2010.

In performing this analysis we, again, like in the previous set-up take into account the different options Serbian authorities could have used in order to compensate for the shortfall in fiscal revenue due to the absence of the MFA and the shortfall of foreign reserves due to the absence of the IMF financial assistance.

The National Bank of Serbia has an informal target of maintaining a level of foreign currency reserves sufficient to cover six months of imports with all the FX reserves beyond this level are considered 'free'.

Since variation in the foreign currency reserves of the NBS are part of the capital and financial account and used to settle the payment of imports, a decline in the volume of the foreign currency reserves would require either a shrinking of the current account deficit (-6.8% of GDP in 2010; -9.16% of GDP in 2011) by a comparable amount or a corresponding decline in the reserves assets (within the capital and financial account).

Thus, the counterfactual modelling of what would have happened in absence of the IMF financial assistance relies on two main hypotheses for possible reactions from the Serbian authorities (the NBS):

- The NBS simply **lets the foreign currency reserve be lower**. Given the magnitude of the IMF assistance in 2010 and 2011, this would have an impact on the volume of the "free" reserves without affecting the six-month coverage of imports. The adjustment takes place within the capital and financial account.
- In the case of absence of IMF financial assistance, the National Bank of Serbia would have sought to maintain its foreign currency reserves at the same level as it would be with the IMF support and the subsequent **adjustment would have been accommodated through the current account** (through reduction in imports).

We requested an opinion of the Serbian stakeholders in order to assess which option would have been more likely to be chosen by the NBS between the two presented above. The responses indicate that between 40% and 80% of the adjustment would have been carried out through the first channel (decline in the FX reserves) and between 20% and 60% through the second channel (current account adjustment). We therefore adopt the hypothesis that the most likely option would be a mixed policy response with 60% of the adjustment (around EUR 206 million of the total EUR 344 million) accommodated through the decline in the FX reserves and 40% (around EUR 138 million) of the adjustment accommodated through the current account deficit reduction.

## 2010

In 2010 only the IMF assistance, of course, is relevant, thus only the no-IMF counterfactual effects are present.

The table below shows the counterfactual effects of the absence of the IMF financial assistance on different macroeconomic aggregates, assuming that the Serbian authorities would have chosen the policy option described above (60% of the adjustment accommodated through FX decline and 40% through the current account deficit reduction):

**Table 20 - Effects of no IMF, 2010**

Macroeconomic indicator	Percentage change	Actual value in % of GDP	Counterfactual value in % of actual GDP	Change in percentage points of the actual GDP
Gross Domestic Product (at market value)	-0.31%	100	99.24	+0.76
Consumption	-0.29%	80.16	79.93	+0.23
Investment	-0.212%	17.24	17.02	+0.22
Current Account balance	0.176%	-6.80	-6.62	-0.18
Capital Account balance	-0.176%	6.80	6.62	+0.18
Nominal exchange rate	0.0014%	-	-	-

**Source: PwC computations**

The counterfactual analysis indicates that **Serbian GDP would have been up to 0.306% lower.**

We assume that up to 40% of the adjustment would have been accommodated by a current account adjustment. The absence of the IMF loan is equivalent to lower foreign currency reserves and a worsening of the capital account balance which would not be compensated by any alternative inflow of private capital or public borrowing abroad. Part of it – 60% – is accounted for by the decline of the FX reserves of the NBS. For the remaining 40% the current account would have had to adjust. This adjustment would have gone through the fall in consumption and investment: the volume of imports covered by the existing FX reserves is reduced, the average relative price of imports increases, and the volume of imports falls. Nevertheless, the current account adjustment would have occurred less in terms of prices (nominal or real exchange rate depreciation of the Dinar), than in terms of quantities (fall in Serbian domestic demand). The reduction of the current account deficit would have been made through reduction in imports with only slight depreciation. The NBS's official stance regarding Dinar exchange rate is the 'managed float' with interventions only to smooth excess daily volatility. However, given the importance of the FX-denominated debt burden and Serbian authorities' commitment in 2010 to limit public debt growth and avoid adverse effects of Dinar depreciation on private indebtedness, it is likely that most of the adjustment would have gone through the fall in imports – after reduction in money supply – with only limited Dinar depreciation.

Another 60% of the adjustment would have been, by assumption, carried out through the decline in the FX reserves of the NBS. Overall the IMF foreign currency reserve assistance in 2010 – which amounted to around EUR 344 million – represented 3.45% of the total NBS foreign currency reserves of the end of that year and . Alternatively, by the end of 2010, IMF funds represented 12.8% of the foreign currency reserves' volume in excess of the 6-months of imports criteria targeted by the NBS. Since 2006 and the switch to 'managed float', the NBS has not had any explicit exchange rate target and intervenes on the market only to smooth daily excess volatility. Nevertheless, given an important share of debt – private and public – denominated in foreign currency, cheaper Dinar would mean a higher debt burden. Therefore, a hypothesis of the Dinar nominal exchange rate that would be only incrementally lower than the actual one seems to be plausible. Our results are in line with this hypothesis, showing a very slight nominal depreciation of the Dinar along with a slight slowdown of inflation (leading overall to a limited real depreciation) in the counterfactual scenario. Thus, had its foreign currency reserves been lower than the actual figure, the National Bank of Serbia would have most plausibly both maintained higher interest rates (in order to keep domestic prices in check) *and* kept higher foreign currency reserves requirements for the domestic banks. This *ceteris paribus* would have induced less domestic private lending, thus, both private consumption and private investment would have been lower in the counterfactual scenario.

At the beginning of 2010, foreign currency reserves of the NBS stood at around EUR 10.6 billion and declined by around EUR 600 million. In this scenario the absence of the IMF loan leads to the foreign exchange reserves depleting by further 206.4 million, so the global decline of the NBS foreign currency reserves over the year would amount to EUR 806.4 million. In this case, by the end of the year the foreign currency reserves would have represented 8.4 months of imports. Therefore, the FX reserves would have been well above the mandatory level. The "free" FX reserves would have been reduced by EUR 206.4 million (the amount of the IMF support) and decline from EUR 2,683 million to EUR 2,477 million.

Under this scenario there could also have been a potential impact on the private agents' expectations regarding the Dinar nominal exchange rate and confidence regarding the Serbian public sector ability to face its external obligations (with subsequent increase in interest rates on the Serbian debt). However, even with foreign exchange reserves lower by EUR 806.4 million (instead of EUR 600 million) the FX reserves of the NBS would have nevertheless represented 426.3% of the monetary base. Thus, tension – if any – on the Dinar nominal exchange rate arising from the depletion of the "free" reserves by additional EUR 206.4 million would have most likely been of a very modest scale and easy to counter through a hypothetical intervention of the NBS.

## 2011

For that year we are considering a mix of policy options of the Serbian government (to cover the absence of the MFA) and of the NBS (to cover the absence of the IMF funds). Concerning the IMF funds we keep the hypothesis of 40% of the adjustment settled through a current account deficit reduction and 60% of the adjustment carried through a decline in the FX reserves.

Thus, we model two possible outcomes, which depend on the fiscal authority action to cover a share of deficit that would not have been covered by the MFA any more.

As in the previous "no MFA" scenario, the government had an option of either borrowing abroad or borrowing from domestic banks (as in the "no MFA" scenario we eliminate the options of raising Vat and cutting fiscal expenditures for the reasons explained in that scenario).

Below we present the counterfactual effects of the two scenarios:

### Counterfactual scenario C: government borrows from domestic banks

This counterfactual scenario mimics the settings of the scenario A – the MFA not awarded in 2011 – with the only difference being that this scenario assumes that IMF financial assistance for this year is not awarded either. The table below shows the counterfactual levels of macroeconomic indicators for this scenario as compared to their actual values:

**Table 21 - Effects of no MFA, no IMF, 2011; government borrows domestically**

Macroeconomic indicator	Percentage change	Actual value in % of GDP	Counterfactual value in % of actual GDP	Change in percentage points of the actual GDP
Gross Domestic Product (at market value)	-0.05	100	99.95	-0.05
Consumption	-0.071%	76.96	76.91	-0.05
Investment	-0.04%	20.14	20.13	-0.01
Current Account balance	-0.23%	-9.16	-9.14	+0.02
Capital Account balance	-0.23%	9.16	9.14	-0.02
Nominal exchange rate	0.0058%	-	-	-

**Source: PwC computations**

The counterfactual analysis indicates that the absence of the MFA and IMF support would have induced a GDP 0.05% lower than the actual figure. The results match very closely the results in the “no MFA” scenario for GDP and its different components (private consumption, investment). The decline in capital account balance would be slightly higher compared to the “no MFA” scenario given that now IMF funds are subtracted from the capital account along with the MFA funds. The current account balance adjusts accordingly. Consumption and investment decline slightly more than in the “no MFA” scenario.

In comparison to the “no MFA” scenario, all changes stand as incremental. This is not surprising: the IMF financial assistance to Serbia in 2011 amounted to around EUR 51 million. The hypothesis of 40% of the adjustment is done through the current account means that the current account has to adjust for only EUR 20 million of the missing IMF funds.

### **Counterfactual scenario D: government borrows abroad**

In this counterfactual scenario neither IMF nor MFA assistance is awarded in 2011 and the absence of the MFA is compensated entirely by the foreign borrowing while the adjustment for the absence of the IMF funds is settled at 40% through the adjustment in the current account and at 60% through the decline of the FX reserves of the NBS. The changes in the macroeconomic indicators associated to the realization of this counterfactual scenario are very close to zero and the counterfactual values of the main macroeconomic aggregates are almost identical to the actual figures. This is due to the fact that almost all the adjustment (for the MFA and the IMF funds) goes through the substitution of one type of borrowing to another within the capital and financial account. The current account adjustment accounts for only EUR 20 million from EUR 151 million (EUR 51 million of the IMF and EUR 100 million of the MFA) which is less than 14%. The absence of the MFA is fully compensated by foreign borrowing (with the effects of the absence of the MFA thus annihilated), while the effects of the non-existence of the IMF assistance are very small.

The increase in public debt – analyzed more extensively in the corresponding subsection – would have corresponded to an increase in the public debt burden due to the Dinar depreciation of the magnitude indicated in the scenarios A and B.

Overall, in 2011 the absence of the IMF financial assistance would have likely produced very negligible effects on most of the macroeconomic indicators as attested by the results of the different counterfactual scenarios. The counterfactual effects of the MFA and IMF absence only very slightly deviate from the counterfactual effects of the MFA absence alone. The main explanatory factor is the limited size of the IMF loan in 2011, both in absolute terms (around EUR 50 million, i.e. half of the MFA funds) and in relative terms (0.45% of the foreign currency reserves of the National Bank of Serbia).

By contrast, the effects of the IMF financial assistance in 2010 were economically significant, but the total of the IMF loans for 2010 (around EUR 350 million) was 2.33 times higher than the amount of the MFA and IMF 2011 taken together (around EUR 150 million), and represented 3.3% of NBS's foreign currency reserves.

### ***Conclusion: the net impact of MFA and IMF funds on Serbian macroeconomic stabilisation***

Our counterfactual analysis shows that the **contribution of the MFA** loan to the macroeconomic stabilization of the Serbian economy is likely to have been **very limited**. For instance, in absence of the MFA, Serbian GDP would have been between 0% and 0.05% lower. This finding is consistent with the limited size of the MFA with respect to the Serbian GDP.

The **macroeconomic impact of the IMF** financial assistance is likely to have been **substantial in 2010 and near-zero in 2011**. For instance, in 2010 the absence of the IMF financial assistance Serbian GDP would be around 0.3% lower. The impact is plausible given the size of the IMF financial assistance that year (around 1% of Serbia's GDP). By contrast, in 2011, the macroeconomic impact of the IMF funds was close to zero, in line with the relative importance of IMF funds (only EUR 51 million, half of the amount of the MFA loan).

## **MFA impact on structural reforms**

The Memorandum of Understanding of the Macro-Financial Assistance (MFA) to Serbia contained two policy conditions as a pre-requisite to the disbursement of the first instalment:

- Government approval of the Budget System Law amendments on fiscal responsibility including the establishment of quantitative fiscal rules, and
- Provisions foreseen in the field of Public Internal Financial Control (PIFC) as a follow-up to the policy paper approved in November 2009.

In October 2010, the National Assembly of the Republic of Serbia made effective the Law on amendments and addenda to the Budget System Law. The latter introduced a set of quantitative fiscal rules and transposed into legislations a set of measures related to the Public Internal Financial Control from the policy paper approved in November 2009. Thus, the policy conditions of the MFA MoU were formally fulfilled prior to the disbursement of the budget support funds in July 2011.

This section of the report investigates and analyses the legislative and policy changes which took place in the framework of the MFA.

The evaluation criteria used for the assessment of the MFA impact on the structural reforms are the relevance (to what extent the structural conditionalities specified in the MoU matched the needs of the Serbian economy), effectiveness (to what extent have the structural conditionalities specified in the MoU been implemented) and efficiency (what was the impact of the implementation of these conditionalities on the short, medium and long term fiscal position of Serbia).

This section is divided into two subsections.

The first section investigates the potential – gross – effects of the MFA policy conditions. This analysis is based on the literature review and incorporates the output of the structured interviews conducted with the Serbian stakeholders, the representatives of the European Commission and of the International Financial Institutions.

The second section is dedicated to the “counterfactual” analysis of the structural effects of the MFA policy conditions. There we address the question of whether the conditionalities specified in the MFA MoU would have been put in place without the MFA. This analysis is based on the output of the Delphi questionnaire.

## **Gross structural effects of the MFA: structural reforms in 2010-2012**

The subsection is divided into two parts – one per policy condition. Each part, in its turn, is organised as follows:

- first we present the legislative features of the Law on amendments and addenda to the Budget System Law introducing quantitative fiscal rules and matching the corresponding policy condition;
- second, we provide an overview of the extent to which the fiscal policies complied with these legislative changes (i.e. to what extent rules put in place have been effectively applied)

These two parts allow us assessing the effectiveness of the fulfilment of the policy MFA conditions and its potential – “gross” – efficiency and impact on the Serbian economy.

- third, we analyse the policy conditions and their implementation, based in particular on the structured interviews output

This part allows us analysing the specific policy condition as regards its design, rationale and effectiveness.

### ***Quantitative fiscal rules 2010-2012: laws, policies and analysis***

This section is organised in three parts. In the first part, we present the legislative changes made in line with the specific policy condition related to the quantitative fiscal rules. In the second part, we follow the relevant macroeconomic developments and policies. In the third part, we analyse the policy conditions, their relevance and design.

#### **Laws**

The article 15 of the Law on amendments and addenda to the Budget System Law added two sections IIA and IIB with articles from 27a to 27j after the article 27 of the Budget System Law.

The article 27g bears on the fiscal rules, specifying in particular

- the target annual fiscal deficit of 1% of GDP in the medium term perspective
- the general state level debt, excluding the liabilities incurred from restitution, capped at 45% of GDP
- a set of indexation rules for salaries of the employees in the public sector and for pensions over the period 2011-2015

In the following dedicated subsections we review these three components one by one.

### - Fiscal Deficit Rule

In order to reconcile the fiscal responsibility objective with the objective of supporting economic growth in case of a downturn, the Fiscal Deficit Rule left a leeway for counter-cyclical fiscal policy by allowing the fiscal deficit to exceed the target in case the growth rate is below its potential medium rate. Thus, according to the Fiscal Deficit Rule, the maximum fiscal deficit (in % of GDP) in any year is computed through the following formula:

$$d_t = d_{t-1} - a * (d_{t-1} - d^{mt}) - b * (g_t - g^{mt})$$

where  $g^{mt}$  is the medium-term GDP growth;  $d^{mt}$  is the medium-term deficit target;  $a$  is the adjustment coefficient for the deficit deviation comprised between 0 and 1;  $b$  is the correction factor for the growth deviation and which also takes values between 0 and 1.

Thus, the fiscal deficit in any given year should be equal to the previous year deficit corrected for the deviation of the previous year's deficit from its medium-term target and the deviation of that year GDP growth from the medium-term average.

For 2011-2013 the Amendments and addenda to the Budget System Law set the adjustment coefficients at the level of  $a=0.3$  and  $b=0.4$ . The text also states that the potential GDP growth rate is expected to reach 4%. From 2014 the values of the two coefficients have to be set by the Fiscal Council for the period of three years at the minimum.

The article 27g also specified the accounting of investment in the computation of the fiscal deficit:

- The portion of the total public investments that exceeds 4% of GDP in 2011 and 5% over the period 2012 to 2015 was excluded from the fiscal expenditures.
- The portion of public investments above the highest levels, by which the increase of the consolidated general state deficit is allowed in accordance with the general fiscal rule, must not exceed GDP 2%.

The legislation specified that if the Fiscal Deficit Rule were to be breached the government should present an action plan in order to bring the deficit within the limits set by the fiscal rule. The Law appoints the Fiscal Council as a supervisory authority for the respect of the Deficit Fiscal Rule.

### - Public debt cap at 45% of GDP

As a corollary of the medium-term fiscal deficit target in the Fiscal Deficit Rule, the legislation specified a quantitative target for the public debt, capped at 45% of GDP. According to the Budget System Law, this 45% of GDP target applies to the general government debt, which in addition to the public debt itself includes the total debt of social insurance funds and local governments. Both internal and external public debts are covered by the rule.

According to the representatives of the Ministry of Finance and Economy involved in its design, the target of 45% was fixed as a thumb rule of the difference between the 60% debt-to-GDP ratio – set by the Maastricht criteria – and the volume of liabilities,



created by the Law on property restitution and compensation, amounting to approximately 15% of GDP.

The Law on property restitution and compensation<sup>14</sup>, made effective as of 6th of October 2011, recognizes as legal liability of the Serbian government towards legal entities or individuals the payments – in-kind or in cash – to be made to the latter in compensation of the private property expropriations by the State having occurred after 1945.

- *Indexation of salaries of public sector employees and of pensions*

Along with the Fiscal Deficit Rule and the public debt cap at 45% of GDP, the Law introduced a semi-annual indexation schedule for the salaries of the public sector employees and for pensions. According to this schedule the salaries of the employees in the public sector and pensions should have been increased as follows:

- January 2011: by **CPI growth** over the previous 6 months
- April 2011: by **CPI growth** over the past 3 months +  $\frac{1}{2}$  **of the actual GDP growth** over the past year (if growth above zero)
- October 2011: by **CPI growth** over the past 6 months
- April 2012: by **CPI growth** over the past 6 months+  $\frac{1}{2}$  of the **actual GDP growth** over the previous year (if growth above zero)
- October 2012: by **CPI growth** over the past 6 months

From 2013 to 2015, the volume of salaries was indexed on the **CPI growth +  $\frac{1}{2}$  of the actual GDP growth** over the previous year, while average pensions over the same period were indexed on the CPI growth + the GDP growth rate of more than 4%.

The fiscal rules regulating the growth of pensions and salaries were set to apply after 2015 until the share of pensions in GDP reaches 10%, and the share of salaries in GDP reaches 8%.

### **Policies**

In 2011 and in 2012 the actual fiscal deficit figures exceeded the targets set by the Fiscal Deficit Rule. The table below shows the difference between the fiscal deficit as it should have been based on the Fiscal Deficit Rule and the actual figure over the period 2010-2012. There is a modest but persistent discrepancy over the three years under consideration: the actual deficit was consistently higher than it should have been.

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<sup>14</sup> The Restitution Law “regulates terms, method and procedure for the restitution of and compensation for the property which was confiscated on the territory of the Republic of Serbia with the application of regulations on agrarian reform, nationalisation, sequestration, and other regulations, on the basis of nationalisation acts, after 9 March 1945, from natural persons and legal entities and transferred into all people, national, state, social or cooperative property (hereinafter referred to as "property restitution").

The Law shall apply on the restitution of the property whose confiscation was the consequence of the Holocaust on the territory which now forms the territory of the Republic of Serbia.”

Figure 13 - Deficit Fiscal Rule-based vs. actual fiscal deficit

	2010	2011	2012
<b>Fiscal Deficit Rule components</b>			
— Actual GDP growth	1%	1.6%	-2%
— Medium term GDP growth	4%	4%	4%
— a coefficient	0.3	0.3	0.3
— b coefficient	0.4	0.4	0.4
— Medium term deficit target	1%	1%	1%
— Previous year deficit	4.5%	4.7%	4.9%
<b>"Rule vs. discretion"</b>			
<b>Rule-based deficit</b>	4.65%	4.55%	6.13%
<b>Actual deficit</b>	4.70%	4.90%	6.40%
<b>Difference</b>	<b>0.05%</b>	<b>0.35%</b>	<b>0.27%</b>

Source: PwC computations

The breach of the Fiscal Deficit Rule (FDR) – albeit insignificant in the first year – occurred over the whole period. In 2011-2012 it was driven by the increase in fiscal expenditures which exceeded the corresponding increase in fiscal revenues. According to the stakeholders interviewed, this differential growth is due, in particular, to the electoral agenda of 2012 which fuelled politically motivated public expenditure increases. In 2013 the IMF expects the fiscal deficit to exceed 8% of GDP against 5.62% given by the Fiscal Deficit Rule.

Similarly, the debt-to-GDP ratio exceeded the 45% target set by the fiscal responsibility framework in 2011 and 2012. The table below shows the difference between the two:

### Analysis

In a preamble to the analysis of the policy condition and its implications and effects for the Serbian economy a clear distinction must be drawn: the MFA Memorandum of Understanding requested a "Government approval of the Budget System Law amendments on fiscal responsibility including the establishment of quantitative fiscal rules". Thus, the MFA MoU targeted only the formal commitment by the Serbian government to inscribe its fiscal policy into a rule-based framework (thus abandoning discretion) and, on the operational level, to design **a** rule – which would fix the fiscal deficit and public debt levels. Another policy condition, attached to the second MFA tranche, required to submit this rule to the Parliament for transposition into law. Therefore, the MFA MoU did not specify any particular shape for the quantitative fiscal rules or any specific shape for the fiscal deficit rule nor any specific target. According to the structured interviews with the DG ECFIN officials involved in the design of the MFA, this was purposeful as there is no consensus – neither among the policymakers nor between academic economists – on the design on the suitable fiscal rule. In fact, rather than seeking to establish a specific rule or reaching a specific target, the policy condition aimed rather at **bringing the fiscal sustainability to front of the economic policy priorities** and let the Serbian authorities choose specific instruments to achieve it.

The implementation of the FDR was **formally effective** – it was made into law in 2010, which made possible the disbursement of the first tranche of the MFA. However, actual fiscal deficit consistently fell below the level established by the FDR. Similarly, the 45% of GDP cap for the public debt was complied with only in the first year of its legal existence, diverging sharply afterwards (in 2012 in particular). However, as will be seen in the further sections, the breach of the cap was driven largely by the currency depreciation (although the primary deficit contributed as well).

The majority of Serbian stakeholders interviewed considered the Fiscal Deficit Rule to be a useful legislative development precisely because it established fiscal responsibility as one of the major economic policy concerns. Even though the FDR has been breached, it constitutes a fiscal anchor around which the economic policy discussion revolves. This fiscal anchor character is reinforced by the obligation for the government – in case of the breach of the FDR – to present an action plan specifying how the fiscal deficit will be brought in line with the FDR constraint.

According to the majority of stakeholders – both Serbian officials and International Financial Institutions' representatives – the Macro-Financial Assistance was politically instrumental in pushing through the fiscal responsibility legislation. The fiscal responsibility framework was envisaged and discussed prior to the MFA MoU laid down the corresponding conditionality. However, the MFA provided a political endorsement to the legislation – making it easier to sell to the general public – thus making its implementation likelier.

Thus, introduction of the quantitative fiscal rules – in the form of the Fiscal Deficit Rule – was unanimously considered relevant for the Serbian economy, although the precise configuration of the FDR was considered suboptimal (more on this in the case study on rule-based fiscal framework).

The cap on the public debt at 45% of GDP has been a corollary of the Fiscal Deficit Rule. A ceiling on the public debt – and the 45% target in particular – is logical with respect to Serbia's path towards EU-accession and the subsequent commitment to the Maastricht criteria. In that sense, the debt-to-GDP target is relevant.

Nevertheless, from the effectiveness point of view, the debt-to-GDP ratio is to a much lesser extent within reach of a fiscal policy than the fiscal deficit. The reason is that that the major impact on the public debt is produced by the exchange rate fluctuations, given the share of FX borrowing in the total borrowing of the Serbian public sector and given the absence of any fixed exchange rate arrangement for the Serbian currency. Thus, the deviation from the 45% debt-to-GDP cap – although raising concern about public debt sustainability and external financial sustainability – is only partly a by-product of a higher-than-expected fiscal deficit.

The introduction of the indexation rules for public sector wages and for pensions sought to prevent discretionary increases in the public wage bill and pensions. Indeed, the wage bill and the transfers to the Pension and Disability Insurance Fund (PIO) weight heavily in the current expenditures and ultimately restrict the leeway for capital expenditures. As a result, in 2012 net public investment in Serbia has been below the emerging economies average according to the IMF.

The indexations rules introduced over the period 2010-2012 were effective, preventing the deficit from deviating even further from its' rule-based target. However, these rules did not manage to contain growth of the salaries in the public sector because of ad hoc remuneration mechanisms used by the government. The indexation rules, however, helped moderating the weight of pensions in the economy. The latter

decreased by around 1 percentage point of GDP over the period 2009-2013. Yet, their level (14% of GDP) remains well above the target of 10% of GDP foreseen by the Law on amendments and addenda to the Budget System Law (albeit without any specific deadline).

The indexation rules bear a design flaw, underlined in the discussions with stakeholders. Inflation over the past six months is difficult to measure with consistency, especially in the Serbia's context of typically high inflation. Thus, indexation on inflation induces an uncertainty about the effective cost for public finances.

In case of public sector wage indexation, in a context of large size of the public sector in the total employment, the former creates a danger of wage-inflation spiral development. However, this risk is moderated by the fact that Serbia is a small open economy and the major sources of inflation are the commodity imports (food, energy).

One beneficial effect from the fiscal rules that was evoked by the stakeholders is the creation of the Fiscal Council. Although this was not part of the policy condition pertaining to the introduction of the quantitative fiscal rules, creation of a supervisory body with a mandate to observe the implementation of the fiscal responsibility legislation (in cooperation with the IMF) reinforces the latter.

### **Public Internal Financial Control**

The notion of "Public Internal Financial Control" was developed by the European Commission in order to help the candidate countries to appropriate and put in place the effective internal control systems.

The Memorandum of Understanding of the MFA included a policy condition requiring Government approval of the provisions foreseen in the field of Public Internal Financial Control (PIFC) as a follow-up to the policy paper (referred to as "PIFC Policy Paper") approved in November 2009 to be introduced into the Budget System Law.

The aim of this reform was to improve the public financial management and align it to the European Union standards keeping in sight the pre-accession perspective.

This section is organised in three parts. In the first part, we present the plans related to the PIFC reform as required by the MFA MoU. In the second part, we present the actions undertaken by the Serbian authorities to fulfil the provisions of the PIFC strategy. In the third part, we analyse the MFA policy condition related to the PIFC, its relevance for Serbia and its design.

### **Strategy and plans**

The measures related to the internal financial control in the public sector were outlined in the Strategy for Development of Public Internal Financial Control in the Republic of Serbia which was prepared in 2007 and submitted to the European Commission in March 2009.

The PIFC Policy Paper presented an action plan for development of public internal financial control with a list of measures/activities to be implemented, the bodies responsible for the implementation of these measures/activities and deadlines for completion.

The action plan comprised three types of activities:

- Common activities: these activities involved a finalization of the PIFC strategy, establishment of the Central Harmonisation Unit (which would be the key actor of the internal financial control in the public sector) and **the amendments to the Budget System Law strengthening the PIFC framework**. These activities were expected to be completed by December 2010.
- Activities in the area of internal audit: these activities comprise establishment of a decentralised internal audit function in the institutions receiving public funds, training of the internal auditors in all relevant public sector institutions and production of the Internal Audit handbook. Completion of these activities was scheduled for December 2014.
- Activities related to implementation of public financial management and control: the activities involve appointment and FMC-focused training of managers in all public sector institutions, production of an FMC handbook, and adaptation of the legal framework and planning (including schedule). These activities were expected to be completed by December 2014.

The MoU MFA did not require completion of all the activities described in the PIFC Policy Paper for the disbursement of the first tranche of the MFA. It referred only to Government approval of the amendments to the Budget System Law for the improvement of the legal framework on Public Internal Financial Control (mentioned under Common activities above).

For the second tranche of the MFA, the MoU MFA laid out a policy condition requiring a Parliament approval of the abovementioned amendments and a recruitment of the Ministry of Finance and Economy internal auditor.

### **Institutional and legal reforms**

PIFC Policy Paper were implemented through the vote by the Serbian Parliament of the Law on amendments and addenda to the Budget System Law in October 2010. Thus, the policy condition associated to the disbursement of the first tranche of the MFA was fulfilled even beyond what was required.

The amendments to the Budget System Law related to the PIFC matters are contained in the articles 31 to 34 of the Law on amendments and addenda to the Budget System Law.

The article 31 of the Law adds to the field of the public internal financial control of the Central Harmonisation Unit the prerogative of coordination of financial management, control and internal audit.

The article 32 amends the article 81 of the Budget System Law by introducing the responsibility of the Head of public funds beneficiary institution for maintenance and regular updating of the financial management and control system. It was made possible to transfer the operational execution of the task from the Head of the institution to a competent person designated by the latter. The person in charge of the task – either the Head of the institution or a person designated by the latter – was henceforth given a duty of informing the Ministry of Finance and Economy on the

adequacy of the functioning of the financial management and control system. The Ministry, in its turn, had to define the reporting requirements.

The article 33 amends the article 82 of the Budget System Law requiring the public funds beneficiaries to introduce internal audit. The article 33 introduces the responsibility of the Head of public funds beneficiary institution for introducing and ensuring adequate functioning of the internal audit.

The article 34 amends the article 83 of the Budget System Law. The tasks relative to internal auditing, financial management and control are devolved to the Central Harmonisation Unit within the Ministry of Finance and Economy. The article enumerates the tasks covered by the activities of the CHU. The amendment takes into account in full the recommendations made by the European Commission (DG Budget) as for the internal audit responsibility. Thus, the latter is devolved to the Central Harmonisation Unit of the Ministry of Finance and Economy.

In December 2011, legislative framework on internal audit and on financial management and control was further aligned with international standards. The Central Harmonisation Unit (CHU) made some progress regarding training and certification of internal auditors.

### **Analysis**

The adoption by the Serbian Parliament of the Law on amendments and addenda to the Budget System Law in October 2010 completes the common activities described in the PIFC Policy Paper action plan. The PIFC strategy was finalized and agreed with international stakeholders (DG Budget) in 2009. The Central Harmonization Unit was established by the end of 2009. Thus, legal changes to be introduced in the Budget System Law were the last activity required to complete the set of common activities described in the action plan of the PIFC Policy Paper. These activities were importance as they prepared the legislative background for the activities in the area of internal audit and activities related to the implementation of public financial management and control. The establishment of a legal framework specifying the duties and the responsibilities of the CHU and the public funds beneficiaries was a prerequisite to the development of the internal audit function across the public sector. Thus, upon completion of the former the establishment of the latter can be launched.

Thus, relevance of the PIFC-related MFA policy condition is unquestionable. The chief importance of this policy condition is underlined by the fact that a similar condition was included in the IPA budget support Memoranda of Understanding (the interaction between IPA and the MFA is investigated in one of the later sections).

Outside the general considerations of good management and protection of public funds, the structural reforms improving internal financial control in the public sector were underpinned by two country-specific and related considerations. First, anti-corruption policy has been of paramount importance for Serbia as it is for all transition countries in the region. Second, the PIFC strategy is part of the general strategy of adoption of EU standards in the field of public financial management and meeting the requirements of harmonisation with *Acquis Communautaire* (defined in Chapter 32 of accession negotiations). This alignment explains in particular the involvement of the European Commission (DG BUDGET) in the drafting of the PIFC strategy document.

The fulfilment of the MFA policy condition was effective in a sense that legal changes required were indeed made part of the Budget System Law. It also represented one step further in the establishment of a full-fledged PIFC system along the lines of the

action plan outlined in the PIFC strategy. Managerial accountability and separation of the manager and accountant functions are better defined thanks to these legislative developments. However, Serbia Progress Report 2012 of the European Commission considers the action plan laid out in the PIFC Policy Paper largely outdated and requiring a subsequent update. Further amendments to the Budget System Law are also deemed necessary, especially with respect to provisions on Financial Management and Control and inspection in order to bring economy, efficiency and effectiveness issues in the forefront in the FMC alongside legality and regularity issues. Senior public sector managers need better understanding of their specific tasks and duties in setting up internal control systems and of the internal audit function within their institution.

### Counterfactual analysis: net impact of the MFA on structural reforms

The counterfactual analysis seeks to determine what would have occurred in the field of structural reforms in absence of the Macro-Financial Assistance. The main methodological tool to investigate these issues is the Delphi analysis which is presented extensively in the Appendix A – Our approach to the Delphi interviews, along with the Delphi questionnaire submitted to the participants.

The Delphi analysis involved ten participants. The table below provides a breakdown of participants by institutional origin (for the sake of preserving anonymity the name of the person/of the institution is not disclosed):

**Table 22 - Delphi participants by institutional origin**

	Serbian government	International financial institutions	Private sector
Number of participants	6	2	2

**Source: PwC**

In this section we summarize and analyze the results of the Delphi analysis. The results in full are presented in full in the **Appendix A – Our approach to** the Delphi interviews.

#### 1. How do you compare the current macroeconomic situation in Serbia, as compared to mid-2010?

The majority of stakeholders (60%) consider that current macroeconomic situation of Serbia is slightly better than it was at the moment of the signature of the MFA, while 30% consider that the situation worsened. This reflects the fact that mid-2010 was close to the peak of the crisis (2009). So these contrasting opinions reflect the fact that on the one hand Serbia pulled out of the crisis in 2010-2011, but that on the other hand its macroeconomic situation deteriorated in 2012.

**2. In your judgement, what was the likelihood of a macroeconomic crisis in Serbia in the years from 2009 to 2012?**

Concerning the likelihood of the macroeconomic crisis, the vast majority of the respondents (80%) agreed that it was likely or very likely in 2009.

The opinion divided over 2010, half of the respondents considering it unlikely, while the other half considered it likely or very likely.

In 2011 and even more in 2012 the majority shifted again towards a higher likelihood of the crisis, reflecting a worsening in the Serbian macroeconomic situation.

**3. How do you assess the contribution of the European Union's Macro-financial Assistance (MFA) towards the macroeconomic stabilisation of Serbia, when compared to the contributions from the IMF and the World Bank?**

The respondents considered by the overwhelming majority (90%) that the contribution of the MFA was minor.

**4. How do you perceive the Macro-financial Assistance from the European Union, where do you think it had the most impact?**

All the respondents consider that the MFA was useful (80%) or necessary (20%). The respondents considered that the MFA had some impact in terms of budget support and assisting in the structural reforms. Its impact on the balance of payments was deemed very limited.

**5. How could the MFA have been more effective?**

Concerning the MFA effectiveness, all the stakeholders considered that the volume of funds could have been higher. This finding, however, does not mean that needs were higher than what was computed by the IMF (the MFA volume was set based on these computations), but that the MFA loan is cheaper than other types of government borrowing.

Interestingly, all the respondents considered that the MFA should have comprised more policy conditions. This is in line with the structured interviews finding that the MFA provides a strong political backing for structural reforms. Thus, more policy conditions would extend the support of the European Union over other structural reforms.

The majority of respondents (around two thirds) consider that MFA loan disbursement should have occurred earlier.



## 6. In your opinion, if the Macro-financial Assistance (MFA) was not granted, what could have happened?

The respondents consider that in absence of the MFA an extension of the IMF financial support would have been unlikely. As for the conditionalities, the opinion divided over whether the IMF policy conditions would have been stricter or easier.

For the World Bank, the question regarding the provision of additional budget support divided the pool of respondents: half considered that it would have been the case and half considered it unlikely or very unlikely. The same proportions prevail concerning a possible shift of the World Bank funding from project-based to budget support financial assistance in the event of an absence of the MFA.

The respondents did not expect any additional assistance from the other donors.

Importantly, the Delphi analysis also requested the experts' assessment of the probability attached to each alternative source of budget financing the Serbian government would have resorted to in absence of the MFA loan.

## 7. If EUR 100 million from the MFA was not disbursed in July 2011, what, in your opinion, were the probabilities of the following actions by the Serbian government:

- VAT increase
- Decrease in public expenditure
- More borrowing from the domestic banks
- More borrowing from abroad (from the banks or through sovereign debt emission)

The probabilities distributed in the following way for the four scenarios of the Serbian government action:

Scenarios	Probability
- increase of the VAT	12%
- decrease public expenditure	9%
- borrowed more from the domestic banks	43%
- borrowed more abroad (from the banks or through sovereign debt emission)	37%

The most likely scenarios of the Serbian government action in absence of the MFA loan are borrowing from the domestic banks and borrowing abroad (43% and 37% respectively). The increase in the VAT and the decrease in fiscal expenditures have relatively low probabilities.

## **8. How do you assess the progress of the structural reform as compared to mid-2010?**

The majority of stakeholders consider that structural reforms related to the fiscal deficit and particularly to the public debt areas presented no improvement or even made the situation worse.

Regarding the structural reform areas related to the Public Internal Financial Control (PIFC) the majority of the respondents pointed out a slight improvement in all of the fields under consideration.

With respect to the public expenditure management and treasury management all the stakeholders point out a major (20%) or a slight (60-70%) improvement.

Finally, regarding tax revenue collection and general public administration the respondents' opinion divided with half thinking there was a slight improvement and half considering that no improvement occurred.

## **9. What contribution, if any, did the EU's MFA have on reforms?**

No one of the respondents considered that the MFA put any of the issues among the structural reforms on top of the policy agenda. A minority of the respondents think that the MFA helped speed up two types of reforms: the one related to the Public Internal Financial Control and the one bearing on adopting the inspection law.

For the other structural reforms the majority of the respondents think that the MFA helped influence the reform agenda without being instrumental for the implementation of these reforms.

For the public debt-related structural reforms around two-third of the respondents consider that the MFA had no effect in this area, while one third consider that the MFA helped influence the reform agenda. Concerning structural reforms related to the fiscal deficit (i.e. the fiscal rules) the respondents' opinion divided is 50-50 between those who consider that the MFA had no effect in this area and those thinking that it helped influence the reform agenda.

## **10. At the time these reforms were proposed, how important do you think they were to the national agenda?**

The majority of respondents considered all the structural reforms relevant issues, with fiscal deficit, public debt, public expenditure management, treasury management and tax revenue collection being particularly important.

## **11. How would you rate the relative importance of these elements in bringing about the reforms?**

- **Serbian government**
- **Macro-Financial Assistance**
- **International Monetary Fund**
- **World Bank**

With respect to the public debt and fiscal deficit, the overwhelming majority of the respondents consider that the IMF contribution was instrumental, although it the Serbian government own initiative played an important role as well. By contrast, the relative importance of the MFA in bringing about the reforms in these areas is considered very limited.

Concerning the structural reforms pertaining to the public expenditure management, treasury management, tax revenue collection and general public administration the role of the MFA was more significant, but still junior to the Serbian government initiative and the IMF involvement.

**12. The area where the MFA really made a difference is the structural reforms in the fields of:**

- Public Internal Financial Control (PIFC) strategy
- Functioning of the Central Harmonisation Unit (CHU) of the Ministry of Finance and Economy
- Establishing decentralised internal audit units in direct beneficiaries of the republic budget
- Certification scheme for “certified public sector internal auditor”
- Publishing the Financial Management and Controls (FMC) handbook
- Training of managers of the FMC
- Familiarisation training of managers in the public sector with PIFC systems
- Adopting an inspection law

In these fields the relative importance of the MFA is often considered as the highest among the four factors involved and in particular systematically rated higher than the contribution of the IMF and the World Bank. This indicates that even though the Serbian government awareness of the utility of structural reforms in these areas and political will to enact them were the key to their successful implementation, the European Union involvement through the MFA was a major driver and of the main success factors in pushing these reforms through. The number of responses concerning these fields was typically lower than for the other (deficit and debt in particular) – or the share of the “No opinion” response was typically high – because of the highly technical and specialized nature of these fields. However, those of the participants who effectively gave their assessment have been directly involved in the fields under consideration, which makes their opinion is particularly informed and valuable.

**13. Had the MFA operations not taken place, what do you think would have happened to these reforms areas?**

The logic of the responses to the previous question is confirmed by the responses to the present one. For the fiscal deficit and the public debt in absence of the MFA policy condition bearing on the introduction of the quantitative fiscal rules, conditionalities related to the structural reforms in these two areas would have been added to the IMF Stand-By Arrangement and would have been likely to figure on the Serbian government policy agenda.

Similarly the structural reforms in the field of public expenditure management, treasury management, tax revenue collection and general public administration would have been pushed through by the Serbian government and/or added to the IMF conditionalities.

By contrast for the reforms related to the fields where the MFA role was deemed the most important in the previous questions, the respondents did not expect any IMF or World Bank involvement in absence of the MFA. The most likely scenario for the majority of the stakeholders is that these reforms would have implemented by the Serbian government from its own initiative.

However, with respect to the fields of

- Public Internal Financial Control (PIFC) strategy approval,
- Functioning of the Central Harmonisation Unit (CHU) of the Ministry of Finance and Economy,
- Certification scheme for "certified public sector internal auditor",
- Publishing the Financial Management and Controls (FMC) handbook
- Familiarisation training of managers in the public sector with PIFC systems

around one quarter of the respondents consider that these reforms would not have been implemented at all in absence of the MFA.

In summary, the majority of the respondents consider that the MFA had a very modest, but still positive macroeconomic impact, in particular regarding the budget support. This finding is unsurprising given the relatively small size of funds provided by the MFA loan.

In the area of structural reforms, most of the stakeholders think that the MFA had little impact on the fiscal deficit and public debt and that in absence of the MFA the reforms pertaining to these fields would have been included as conditionalities by the IMF.

The real added value of the MFA lies in the area of structural reforms related to the Public Internal Financial Control. In these areas, despite clear appropriation of the reform objectives by the Serbian government the contribution of the MFA was instrumental in pushing these reforms through.

## Case study: pensions and pension reforms in Serbia

This chapter presents the pension system and pension reforms in Serbia. Although the Macro-Financial Assistance did not comprise any policy condition related to the pension reform, **external financial sustainability was one of the objectives of the MFA. Yet**, the financial stability of the pension system in Serbia is of paramount importance for the long term sustainability of the public finances. As a snapshot, pension expenditures represented 28.9% of the total central government expenditures in 2011 and 29.7% in 2012. Thus, pension reform aiming at stabilizing the long term pension payments balance trajectory is a key to achieving fiscal sustainability.

This chapter is organised as follows:

- First, we briefly present the current organisation of the Serbian pension system.
- Second, the scope and the origins of the pension problem in Serbia are presented and explained.
- Third, we present the pension reforms that took place over the evaluation period 2010-2012 and assess their results as for the resolution of the pension problem.
- Forth, we anticipate the perspectives of the pension system evolution and the structural reforms in this area.

### **Serbian pension system: organisation**

The Serbian pension system relies on three pillars.

The **first pillar** is the **mandatory state pension insurance**. This pillar works on a pay-as-you-go principle: current contributions from the employers and employees to the state pension fund are used to pay pensions of the current pensioners. This type of pension insurance is legally mandatory: all the persons employed in Serbia are automatically enrolled in the pay-as-you-go system (1<sup>st</sup> pillar).

The **second pillar**, currently under construction, is **mandatory complementary private pension insurance**. This pillar would consist of mandatory private savings accounts. These accounts would be held with a private pension fund and funded by a share of mandatory social contributions paid to this private pension fund instead of the state pension system.

The **third pillar** involves **voluntary complementary private pension insurance**. This pension insurance provides an opportunity to both the employed and the unemployed to secure a complementary pension by paying additional pension contributions to personal accounts in a voluntary pension fund. However, only 8% of the persons employed have currently subscribed to a voluntary complementary private pension scheme.

Thus, the main pension scheme in Serbia is the mandatory state pension insurance based on the pay-as-you-go principle. This pension insurance is managed by the

Pension and Disability Insurance Fund (PIO)<sup>15</sup>. In its coverage of the Serbian pension problem the analysis will focus mainly on the PIO financial sustainability.

For the old-age pensions (the largest component of the mandatory state pension insurance payments), benefits are a function of earnings earned during the working years, the number of years of contributions, gender and occupation.

Despite recent reforms, the statutory **retirement age necessary to benefit from a full pension remains lower in Serbia than in other European countries**. The current retirement age requirement is of 65 years (with 15 annuities – years of contribution) or 54 (with 40 annuities) for men and 60 years (with 15 annuities) or 53 years and 4 months (with 35 years and 4 months of contributing) for women. In addition, there exist numerous early retirement options based on the number of years of contributions, gender or professional occupation, while longer careers are not rewarded. As a consequence, **early retirement is frequent** and the average effective retirement age among old-age pensioners is of 61 years for men and 58 years for women<sup>16</sup>.

The minimum early retirement age in Serbia is of 58 both for men and for women.

The **replacement rate** for a pensioner with 40 annuities and average earnings through his career stands at **70%**, which is comparatively high with respect to other European economies

#### ***Serbian pensions as a macroeconomic issue***

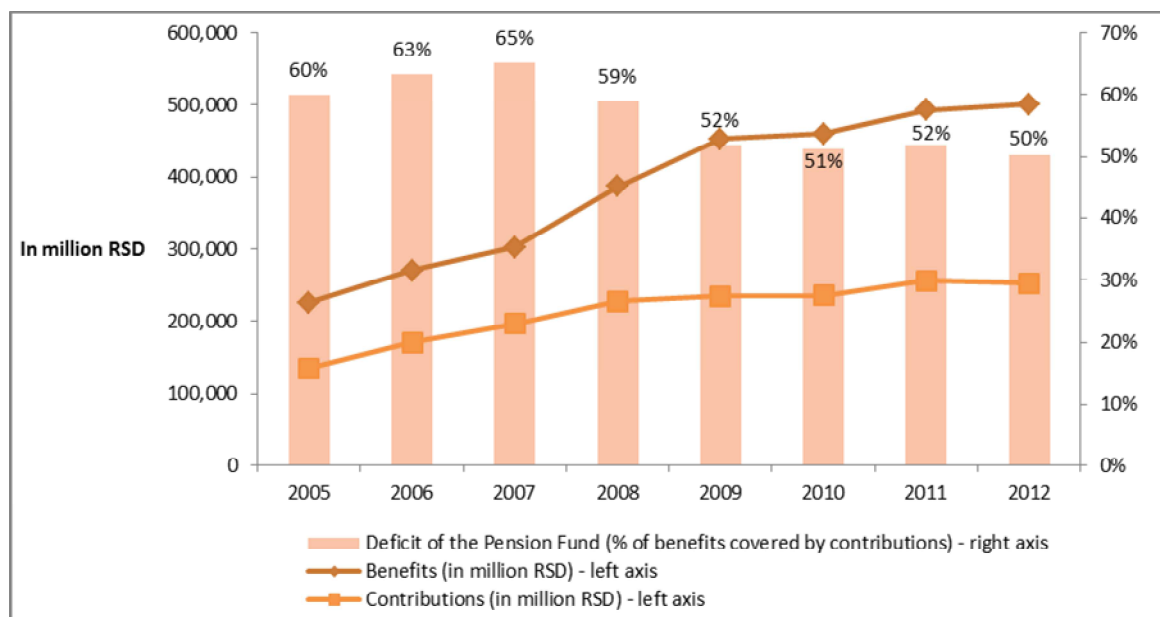
As in any PAYG pension system, currently working persons contribute to the pension fund in exchange of the rights to future retirement. These contributions are used for payment of pensions to the currently retired. However, the social contributions collected have not covered the social benefits disbursed for the thirty years.

The following table presents the dynamic of social contribution revenues and pension expenditures of the PIO from 2005 to 2012 and the subsequent deficit:

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<sup>15</sup> PIO stands for *Penzijuskog i Ivanlidskog Osiguranja*.

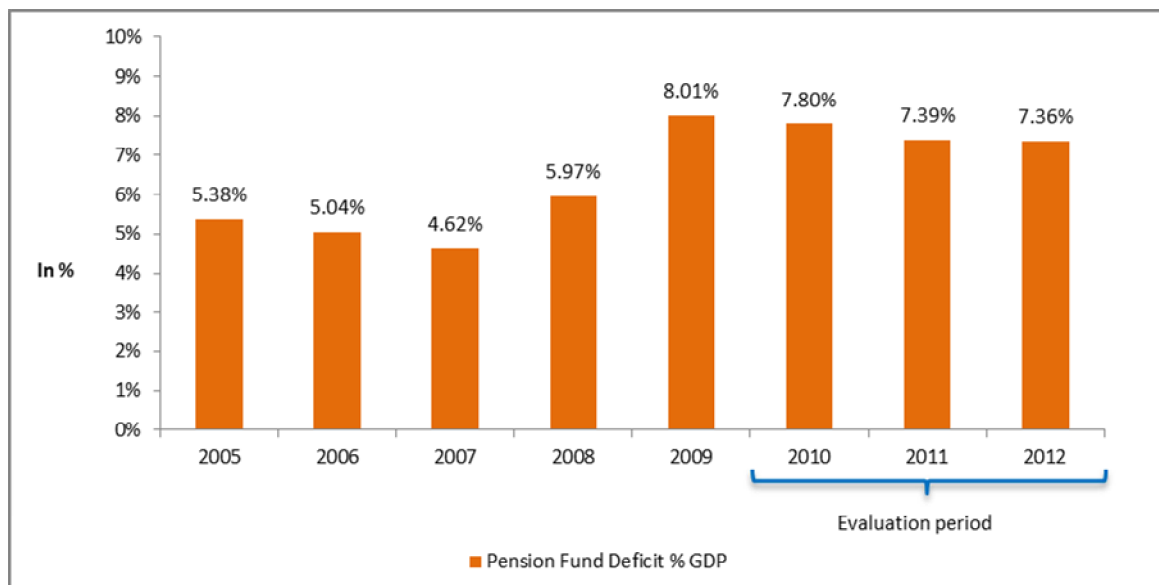
<sup>16</sup> For disability pensioners the average effective retirement age is even lower: 55 for men and 51 for women.

**Figure 14 - Deficit of the Pension Fund, Serbia, 2005-2012**

**Source: Ministry of Finance and Economy, Bulletin Public Finances January 2013**

Over the period 2005-2012 the contributions to the Pension Fund have consistently fallen below the pension benefits distributed, and the trajectories between the two aggregates have been diverging over the whole period. The percentage of the benefits covered by the contributions fell in percentage and in absolute terms: at the beginning of the period, in 2005, contributions represented 60% of the benefits, while in 2012 only 50% of the benefits were funded thanks to contributions to the PIO. The deficit of the Pension Fund resulting from the divergence of the contributions and benefits is covered by the transfers from the central government budget.

Thus, the macroeconomic translation of the persistent and growing divergence between the benefits and the contributions is the growing weight of the pension fund deficit in the economy as measured by the percentage of GDP, as shown in the graph below.

**Figure 15 - Deficit of the Pension Fund, 2005-2012 (as a % of GDP)**

**Source: Ministry of Finance and Economy, Bulletin Public Finances January 2013, National Bank of Serbia, PwC calculations**

The deficit of the Pension Fund, computed as the difference between the revenues from *social contributions* and the expenditures on *social insurance benefits* (i.e. on pensions) increased substantially with the crisis from its pre-crisis level: from 5.25% on average in 2005-2008 to 7.64% on average in 2009-2012. Since 2009, this deficit has been on a diminishing trend, but still represented 7.36% of GDP in 2012. Pension expenditures are currently the largest item of the general government budget expenditures, representing around 30% of the total budget expenditures in 2012. Pensions have been the main drivers of Serbia's fiscal deficit. In fact, given the relative magnitude of the transfers to the PIO and of the budget revenues and expenditures, in absence of the Pension Fund deficit, Serbian budget would move from deficit into surplus! For instance, in 2012 the fiscal deficit of Serbia is estimated at 5.7% of GDP (cf. **Figure 10** - Fiscal balance of Serbia, 2005-2012, in % of GDP) against 7.36% of GDP of the Pension Fund deficit. Budget spending on pensions has crowded out more effective spending items, for instance reduces resources available for capital expenditures.

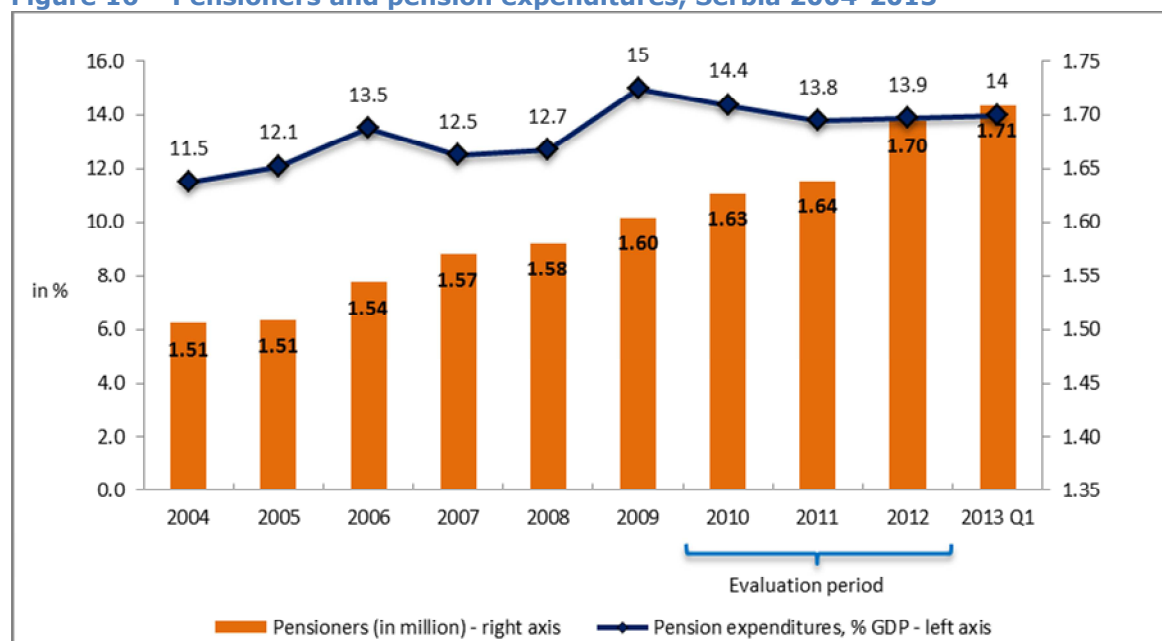
Before 2008 governments took the stance of increasing pensions significantly, with most pronounced growth in the period of 2006-2008 with especially important increases around two consecutive elections in January 2007 and May 2008. As the results of the coalition agreements, Ministry of Finance and Economy provided a 12% increase in pensions in January 2008 and a 14.3% increase in October of 2008. With other months indexations overall growth in average pension was around 45% over one year (January 2008 to January 2009).

As a result of these policy developments, combined with shrinking economy, pension cash costs spiked in 2009 and put the constraint on fiscal management in the next two years. After the recession started, increased pensions became unbearable burden for fiscal authorities and further increase and indexation had to be suspended from January 2009 until January 2011.



As the following graph shows, the number of pensioners in Serbia increased from 1.5 million persons in 2004 to around 1.7 million in 2013. Over the same period the pension expenditures fluctuated between 11.5% of GDP in 2004 and 14% of GDP in 2013 with a peak at 15% of GDP in 2009<sup>17</sup>.

**Figure 16 – Pensioners and pension expenditures, Serbia 2004-2013**



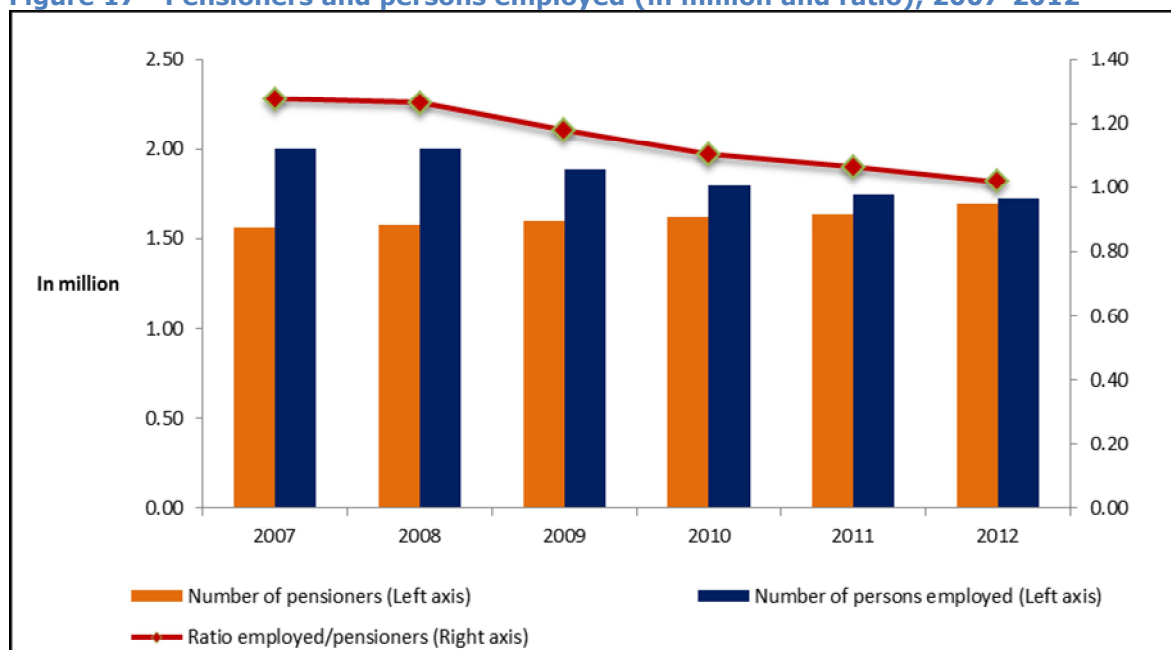
**Source: PIO, Yearly bulletin, 2011 and National Bank of Serbia, Statistics, Macroeconomic Indicators**

The origin of the Serbian pension problem resides in the demographic evolution and the subsequent change in the ratio of persons employed over the pensioners. Serbia has been one of the European countries with the lowest fertility rate which has been falling since 1991. As a consequence, population has been shrinking since the middle of 1990s. The average age of the population increase from 34.9 years in 1991 to 39.9 in 2001 and 41.3 in 2010<sup>18</sup>.

The following graph presents the evolution of the ratio between the persons employed and the pensioners:

<sup>17</sup> For the sake of comparison, transitional EU countries pension expenditures represented on average 8.5% of GDP in 2010, while in the Eurozone pensions expenditures 12.2% on average in 2010.

<sup>18</sup> National Statistical Office of the Republic of Serbia.

**Figure 17 - Pensioners and persons employed (in million and ratio), 2007-2012**

**Source: National Statistical Office of Serbia, PIO Fund**

The number of pensioners has increased steadily over the whole period from 1.57 million in 2007 to 1.69 million in 2012. In the meanwhile the number of persons employed decreased – from over 2 million in 2007 to 1.73 million in 2012 – as a result of both a decrease in the working age population and rising unemployment. A direct consequence of these two trends, the ratio between the number of persons contributing to the Pension Fund and the number of the Pension Fund beneficiaries decreased to approximately one pensioner for one person employed. Thus, every person employed has to pay for one pensioner, both through pension contributions and taxes.

Another important factor accounting for the high pension burden is a larger share of disability pensions in the total pensions. Indeed, for Serbia this indicator reaches 22% as opposed to the international average of 15%.

In addition to crowding out more productive spending within the fiscal expenditures, ever-increasing pension costs could trigger two harmful effects for the Serbian economy:

- Higher costs require higher contributions or taxes on the persons formally employed, pushing increasing number of employees into informal employment thus aggravating the pension funding problem
- An unsustainable pension cost burden put on the persons employed would boost migration of the young from Serbia abroad again aggravating the pension problem

Thus measures reforming the Serbian pension system are deemed necessary in order to ensure its medium-long sustainability and, as a corollary, stabilizing its burden for the public finances.

### **Past reforms and current options**

In 2000s, prior to the crisis, partial privatization of public pension systems was the prevailing paradigm of the pension reform. Many Central and Eastern European countries in transition have adopted this path the common belief being that the private funded pensions' regimes offer a higher degree of financial sustainability as opposed to the pay-as-you go systems traditionally predominating in this geographical area.

The first democratic government underwent some parametric reforms of the pension system so as to stabilize the PIO fund and limit the adverse economic and demographic trends of the previous years. Retirement age was increased from 60 to 63 for men and from 55 to 58 for women. Pensions' adjustment was made through a new formula integrating the weighted average of the cost of life index and the average wage growth:

$$GP_t = GP_{t-1} * (1 + 0,5 * CL_{growth} + 0,5 * AW_{growth})$$

New General point (GP) was calculated as a multiple of old general point and the adjustment coefficient. This coefficient had been derived from weighted average of cost of life index growth and growth of average wage in the country. In the period 2001-2005 both parameters had been taking 50% weight. Also, the Ministry of Finance and Economy lowered the contribution rate from 32% to 19.6% coupled with some regulatory changes that widened the tax base and eliminated many deductions.

The most important change enacted in 2005 was the change in the formula: from the period 2005-2009 pensions were adjusted only for the cost of life<sup>19</sup> while the average wage growth parameter was abandoned. Later the law was amended so that pensions follow CPI index and GDP growth over 4%<sup>20</sup>. Also retirement age was to rise by the end of 2011 to 65 for men and 60 for women. The detailed retirement age rules are still in place. Calculation formula was changed from taking into account the best 10 years, to accounting all years. However, these reforms that had some positive effects in short term were cancelled by the additional law article that set minimum average pension to the level of 60% of the average wage. This was the basis of unscheduled pension increase of 12% in January 2008. The law's articles that defined pension adjustments were suspended in 2009-2011 period and slightly amended for 2011 and 2012.

Fiscal responsibility framework made into law in 2010 ruled out discretionary pensions' increases by setting an indexation rule (see the relevant section). According to the legislation, these indexation rules will be in force until pensions bill is reduced to 10% of GDP.

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<sup>19</sup> Cost of Life index was a particular methodology in socialist countries of measuring the rise of cost of living. This is similar to CPI methodology, but the basket was more adjustable because it included particular products, not product groups as CPI does. After the law reforms Statistical Office stopped accounting Cost of Life index.

<sup>20</sup> Formally the change was legal in 2005 but was to be applied only after Statistical Office changed inflation measurements methodology to CPI. In addition, this rule was amended with government decision to additionally increase pensions in 2008.

### **Possible current reform options**

For a full privatization of the pension system, approximately EUR 2 billion a year on average are needed in course of 15 to 20 years to fund the transition, putting total value of the transition at around EUR 55 to 60 billion. In addition, any partial privatization, which would mean introduction of second pillar and mandatory private account savings, would again increase PIO fund deficit and need for greater central government transfers. Thus in the course of next 3 years, only parametric reforms seem feasible. Before the economy fully recovers, pension system could only be prepared for possible partial privatization.

Possible reform options that can significantly contribute to shrinking of PIO fund deficit and pension system sustainability are given below:

- Gradually **align the statutory retirement age for women to the level of minimum retirement age for men at 65**. This parameter change would have significant effect in the beginning since women are the majority of total and great majority of early retirees. Only Serbia and Albania left retirement age for women at level of 60 after 2012 parametric adjustments in eastern EU countries. The biggest difference between man and woman retirement age in transitional EU countries is 2 years. According to the IMF computations, the total savings from such reform if it had to start in 2013 would amount up to 7.2% of GDP as of 2050.
- Gradually **increase the statutory retirement age for both men and women** to follow relative retirement age and age expectancy (at least to the age of 67).
- **Introduce personal point penalties for early retirement before the statutory age**. One of the major flaws in the current pensions system is to allow people retiring earlier without financial consequences. As a consequence, men retire on average 3.5 years before the statutory age, while women retire 1.5 years earlier. According to the IMF, an introduction of actuarial penalties of 6% for every year of early retirement would both enhance spending savings and stimulate labour supply.
- **Introduction of late retirement reward**, which is the addition to the pension for every year of postponed retirement. In the relevant countries this award is usually around 6% for a year.

The global effect of reforms depends on the changes and their interaction. Every 10,000 of retirees that either have retirement right postponed or decide to wait, would save at least EUR 25 million a year. However, actuarial penalties and retirement age increase for woman would have very significant net effect in first 3 to 5 years. In that period, the number of new pensioners could drop between 60 and 20 thousand depending on the combination of changes. Accordingly, savings of EUR 160 to 55 million a year are possible if the right set of reforms is put in place in 2013.

An additional fiscal measure to contain pension cost growth under consideration is a nominal freeze on pensions in 2013. Due to increasing budget deficit and bad fiscal projections after Q1, there is a possibility that current government would impose such measure to control the rise in pension costs. This measure could be held in place as long as there is a drop in wages in the country and unemployment stabilizes. This would push average pension closer to 60% of average wage and decrease overall costs of the pension by EUR 200 to 100 million in 2014.

Other complementary reforms could have significant medium term effects on pension system, such as more flexible labour market that would increase employment and contributions.

### **Case study: the establishment of the rule-based fiscal framework**

Establishment of the quantitative fiscal rules was one of the conditionalities of the MFA and one of the key elements of the fiscal strategy of restoration of fiscal sustainability in the medium-long term. Thus, this section seeks to assess the gains from the implementation of the quantitative fiscal rule, check on its effective implementation, assess the relevance of its design and consider alternative formulations.

The section is organised as follows:

- First, we analyse in detail the Serbian fiscal problem in order to understand the adequacy of a fiscal consolidation and therefore of the fiscal responsibility framework as a fiscal consolidation tool;
- Second, we examine the design and the implementation features of the fiscal responsibility framework (of the Fiscal Deficit Rule in particular) in order to assess its impact and efficiency for the Serbian economy. We also review the FDR as implemented in Serbia against possible alternatives.

#### ***Analysis of the Serbian fiscal deficit problem***

The fiscal deficit of Serbia has been increasing continually from 2006 to 2012, increasing by over 7 percentage points of GDP from 2005 to 2012! The increasing trend started in 2006 when the country's fiscal balance moved from surplus to deficit. However, a qualitative jump in the fiscal deficit came with the crisis: from -2.6% of GDP in 2008 the fiscal deficit deepened to -4.5% of GDP. This movement was partly due to the shortfall in fiscal revenues and increase in fiscal expenditures usual for recessionary time, partly to the fiscal policy stance which deepened the primary fiscal deficit and partly to the concomitant depreciation of the Dinar which increased the debt and the interest payments burden.

An important point in the Serbian fiscal deficit analysis is to discover which part is due to the nature of the fiscal policy – thus calling for fiscal consolidation – and which share is due to the economic slowdown (thus being of potentially self-correcting nature).

### Structural vs. cyclical nature of the Serbian fiscal deficit

One of the main policy questions pertaining to the budget deficit analysis is to what extent the deficit is a result of the cyclical factors (i.e. recession) and to what extent it is the result of structural (macroeconomic and demographic) features of the economy as well as of the mismatch between spending position and tax position. For instance, if a fiscal deficit is entirely due to an ongoing recession, then once the GDP growth returns to its trend and the output gap closes the deficit will disappear automatically – due to an upswing of fiscal revenues – without any need to reconsider the fiscal policy.

In order to breakdown the fiscal deficit into a cyclical and a structural component, the Ministry of Finance of Serbia followed an OECD methodology in computing the cyclically-adjusted fiscal deficit by the following formula:

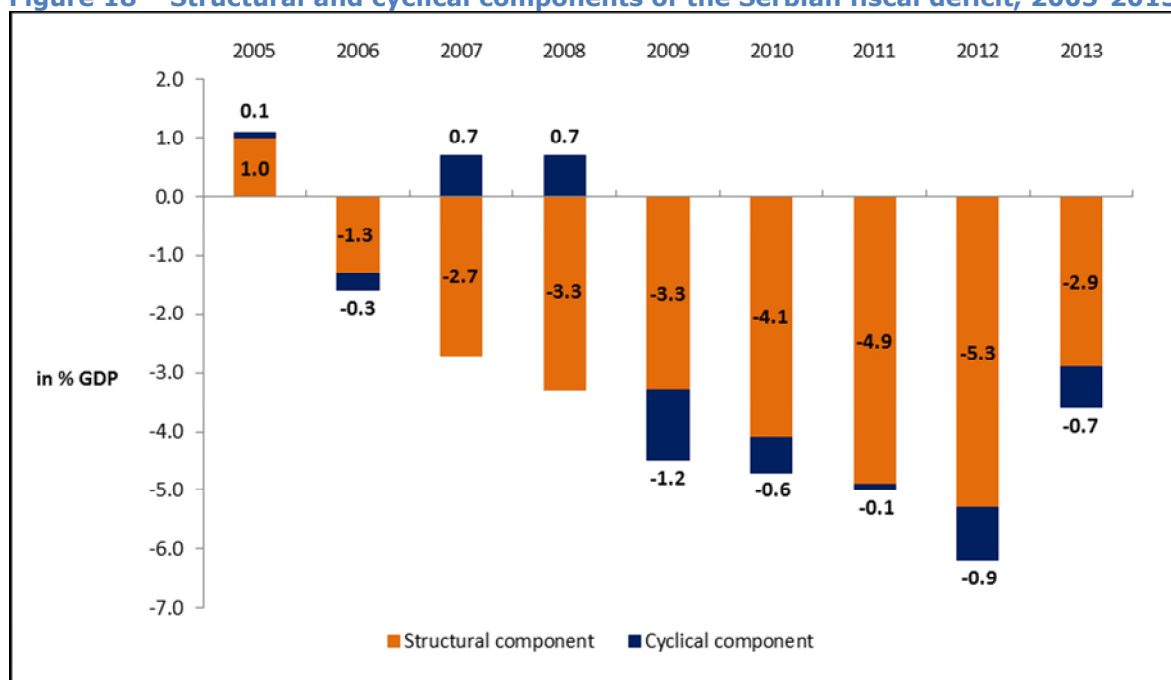
$$\underbrace{CAB_t}_{\text{Structural component}} = \underbrace{B_t}_{\text{Actual fiscal deficit}} - \underbrace{\eta * \frac{(Y_t - Y_t^*)}{Y_t^*}}_{\text{cyclical component}}$$

Where  $\eta$  is the elasticity of the fiscal balance with respect to the output gap,  $B_t$  is the actual fiscal balance (as presented in the usual public finance statistics) and  $\frac{(Y_t - Y_t^*)}{Y_t^*}$  is the output gap (measure of the deviation of the GDP growth from its potential).

The elasticity  $\eta$  is computed as the sum of two elasticities: the elasticity of the fiscal revenues to the output gap and the elasticity of the fiscal expenditures to the output gap. Both elasticities have been assessed econometrically by the Serbian Ministry of Finance and Economy.

The following graph shows the breakdown of the fiscal deficit in Serbia is 2005-2012 into a cyclical (recession-induced) and structural (due to policies and fiscal system design) components:

**Figure 18 – Structural and cyclical components of the Serbian fiscal deficit, 2005-2013**



Source: Ministry of Economy and Finance of Serbia

The graph shows that the fiscal deficit has been predominantly structural. Through the crisis years the structural component has been overwhelming, except in 2009 when fall in GDP (and the deviation of the GDP growth from its potential level) was the largest. For the evaluation period, the fiscal deficit in 2011 was almost entirely structural, while for 2010 and 2012 around 10-12% only of the fiscal deficit was due to cyclical factors. The structural nature of the Serbian fiscal deficit implies that the fiscal deficit would not be eliminated if GDP growth resumes at its potential level.

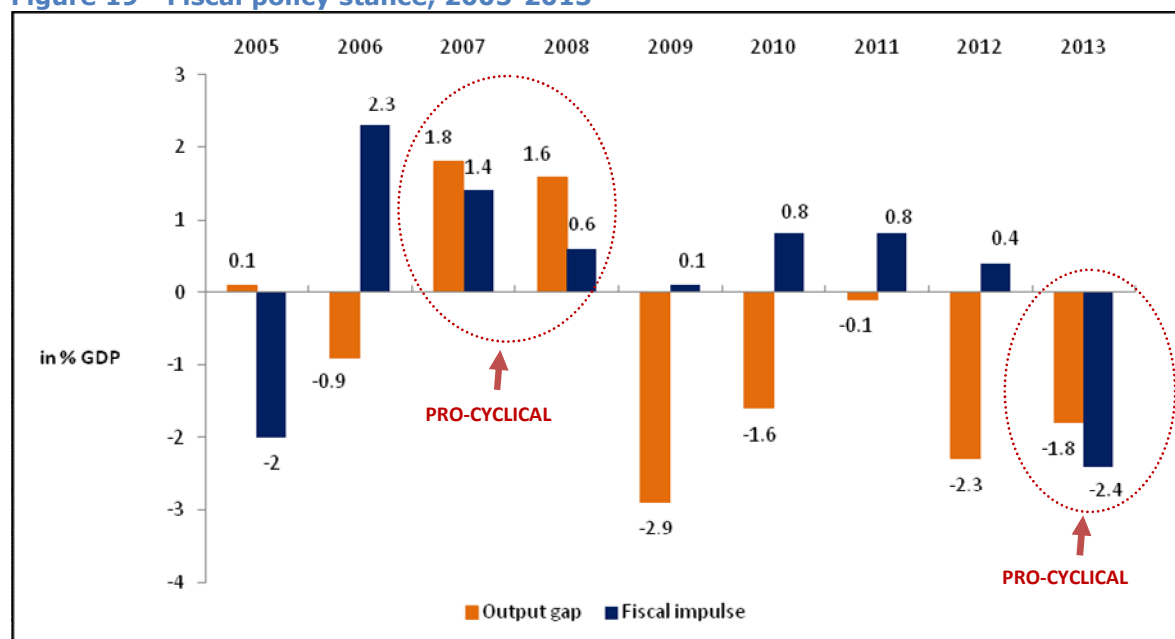
The relationship between the total fiscal balance and its cyclical component is also informative of the fiscal policy stance over the period. Thus, in 2007 and 2008 not only the fiscal deficit was entirely structural, but in absence of the expansionary fiscal policies Serbia would actually have exhibited fiscal surpluses. In the following subsection we address in detail the issue of the Serbian fiscal policy stance over the period under consideration (2010-2012).

### Serbian fiscal policy stance before and after the crisis

In order to assess the nature of the fiscal policy, we rely on the computations of the previous subsection. Following the methodology of the Ministry of Finance and Economy of Serbia, the fiscal policy stance in year *t* is calculated as a difference between the structural (cyclically-adjusted) fiscal deficit in that year and the structural deficit in the previous year. The figure obtained shows the impulse provided to the economy by the fiscal policy.

The table below shows the evolution of the output gap (measure of the GDP growth deviation from its potential) in parallel with the fiscal policy impulse (in percentage of GDP). When the two figures move in the same direction (negative or positive) the fiscal policy is pro-cyclical, when the fiscal impulse moves in the opposite direction with the output gap, the fiscal policy is counter-cyclical.

Figure 19 - Fiscal policy stance, 2005-2013



Source: Ministry of Economy and Finance of Serbia

*How to read the graph: when the GDP growth exceeds its potential level, the output gap shows as positive; when the fiscal impulse is above zero, the fiscal policy is expansionary (the structural deficit of that year is higher than the structural deficit of the previous year).*

Counter-cyclicality is a usually recommended feature for the fiscal policy: in presence of the strong growth fiscal deficit is contained or fiscal surplus is produced, in case of an economic downturn the fiscal policy provides a “cushion” so as to smooth the effects of the recession. Depending on the size of the public spending/taxation in the GDP this is done to some extent through automatic stabilizers (increase in mandatory expenditures and decrease in taxes) and to some extent through discretionary expansionary fiscal policy. Surpluses accumulated through the period of economic expansion provide resources for fiscal stimulus in years of slow or negative GDP growth.

Over the two years immediately preceding the crisis – 2007 and 2008 – the Serbian fiscal policy was expansionary and pro-cyclical. In spite of an economy growing faster than its potential, the fiscal policy provided a further stimulus. As a result the country lacked resources for a full-fledged fiscal support to the economy after the outbreak of the crisis, in particular in 2009 and 2010. The fiscal policy was counter-cyclical over 2010-2011 and turned pro-cyclical again in 2012 with the fiscal tightening coinciding with fall in GDP.

### ***Serbian Fiscal Rules: design and implementation***

The explicitly stated objective of the Fiscal Deficit Rule is to inscribe the fiscal policy into a predictable legislative framework. The fiscal authority ties its hands by abandoning discretion and committing to adjust its spending and taxation policies to fit the numerical target on budgetary aggregates.

The benefits from a fiscal rule, usually accompanied by a fiscal deficit target, are twofold:

- Correct for the overspending bias: governments tend to overspend, in particular in pre-election years and over strong growth periods when deficits are below the medium term average.
- Provide a solution to the “common pool problem”: competing interest groups or population categories do not internalize the public sector budget constrain in their requests for targeted spending or tax breaks.

Both arguments clearly apply for Serbia where the pre-electoral periods were accompanied by strong (and sometimes pro-cyclical) increases in fiscal deficit and where political fragmentation favours special interest pressures for budget outlays or special taxation regimes.

The Serbian fiscal responsibility framework comprises three types of fiscal rules: a **structural budget balance rule** (FDR), a **debt rule** with the target of the 45% debt-to-GDP ratio and a form of **expenditure rule** with indexation of public sector wages and of pensions on the evolution of macroeconomic aggregates (GDP growth and CPI growth).

While all types of fiscal rules have their own theoretical structural advantages and shortcomings, our analysis focuses on the specificities of the three Serbian fiscal rules given the Serbian institutional and macroeconomic context.



### **The Fiscal Deficit Rule**

The Fiscal Deficit Rule fixes the maximum fiscal deficit (in % of GDP) in any year as given by the following formula:

$$d_t = d_{t-1} - a * (d_{t-1} - d^{MT}) - b * (g_t - g^{MT})$$

where  $g^{MT}$  is the medium-term GDP growth;  $d^{MT}$  is the medium-term deficit target;  $a$  is the adjustment coefficient for the deficit deviation comprised between 0 and 1;  $b$  is the correction factor for the growth deviation and which also takes values between 0 and 1.

As such, the Serbian Fiscal Deficit Rule accounts well for macroeconomic shocks by integrating the output gap component. Thus, the rule not only allows the automatic stabilizers to operate in case of an economic downturn and leaves open the option for the counter-cyclical fiscal policy in a recessionary context, but effectively constrains the fiscal policy to be countercyclical. However, this correction for the cycle is empirically complicated.

The first reason is related to the difficulty of measuring with precision the output gap, especially over recent periods.

The second reason is conceptual and refers to the output gap evolution through the recession. For instance, the medium-term target of the fiscal deficit of 1% of GDP seems having been out of reach given the actual deficits over the period 2010-2012 and the forecasted fiscal deficit between 3.6% and 4.1% of GDP in 2013. This deviation is due to the consistent mismatch between the GDP medium term growth and the actual GDP growth: the 4%-figure for the medium term GDP growth inscribed in the FDR relied on the hypothesis of a return – in the years to come – of the economy to its pre-crisis growth trend with the closure of the output gap. However, the recession bringing down investment of the firms lowers the potential GDP growth as well. Thus, after the recession the output gap closes through downward convergence of the potential GDP to the actual rather than the reverse. If the potential (medium term) GDP growth is lower than the expected 4% per year, than the Fiscal Deficit Rule would constraint the fiscal deficits to be much lower than what is foreseen with the 4% assumption and considerably lower than what was actually achieved. As an example, for 2011 the Fiscal Deficit Rule-based deficit should have stood at 4.55% of GDP. However, assuming the medium-term GDP growth of 2% instead of 4% would require the fiscal deficit in 2011 to be 3.75% which represents a considerable fiscal consolidation effort.

One general issue of any fiscal rule is the degree of compliance with the latter. Indeed, credibility theoretically provided by the fiscal rule – and subsequent macroeconomic benefits – rely not only on the commitment, but also on the ability of the government to comply with the fiscal rule. However, the design of the fiscal rule chosen by the Serbian government – and in particular the parameters chosen – shed doubt about the ability of the government to keep its spending and taxation policies in line with the FDR target. For instance, the medium GDP growth of 4% per year assumes a return to the pre-crisis trend at least in the medium run. In addition to the “downward convergence” of the potential GDP to the actual one mentioned above, there is a basic feature of increasing capital per capita: the 4% GDP growth refers to the period 2000-2008 when Serbia started to grow from a lower level of capital per capita; assuming growth resumption in 2013-2015, all else held equal, the Serbian economy will grow from a relatively higher level of capital per capita, thus 4%

hypothesis seems audacious. As a general matter, parameters chosen (medium term deficit and growth) are too ambitious which makes the rule difficult to comply with. This difficulty, in turn, undermines the credibility of the rule.

A subtlety of the fiscal rule design consists in striking a balance between leeway left by the rule to smooth the economic cycle – which requires a certain degree of complexity in its design – and its constraining character on public action to rein in structural deficits – which requires clarity of formulation. The Serbian Fiscal Deficit Rule is sufficiently flexible and fixes clear targets, but the GDP growth quantitative parameters inputted weaken its credibility.

Regarding the implementation of the Fiscal Deficit Rule, an independent body – the Fiscal Council – monitors its implementation and will acquire from 2014 the legal authority for setting the values of the two weights put on the deviation from the medium term deficit objective and on the output gap. However, the current role of the Fiscal Council is purely supervisory. In particular it has no authority for setting the budget assumptions which are left to the discretion of the government.

The FDR is, to a great extent, under control of the Serbian government with the exception of the interest payments. The latter can affect the budget balance in case of a sharp and strong depreciation of the Dinar (given that most of the Serbian public debt is denominated in foreign currency). An alternative would have been to replace the fiscal deficit with the primary fiscal deficit (which is entirely under control of the Serbian government) as a reference for the FDR. However this would bring more complexity into the rule.

The history of the implementation of the Fiscal Deficit Rule has shown its low robustness to the electoral shocks which calls into question its credibility.

#### **Public debt cap at 45% of GDP**

The public debt to GDP ratio capped at 45% proved the less resilient of the fiscal rules. The reason, however, resides largely outside of the political commitment of the fiscal authority. The increased primary deficit contributed to the increase in public debt. However, one of the major drivers of the increase in public debt was the depreciation of the Dinar from 2011 to 2012 (see the next chapter for the detailed analysis of relative contributions of different factors to the public debt increase). According to the IMF computations, exchange rate depreciation accounted for 2.9 percentage points of GDP in the total growth of the public debt from 2011 to 2012. Limited control of the fiscal authority is a serious drawback in the rule design which limits the efficiency – and therefore the credibility – of the rule.

The rule does not comprise any economic stabilization feature. Given that the public debt tends to increase – due to the increase in the fiscal deficit by the play of automatic stabilizers – it could constrain the government to conduct a pro-cyclical fiscal policy aiming at bringing the debt down if it exceeds or is close to the 45% threshold.

Among the advantages, the rule is clear, easy to monitor and in line with Serbia's European perspectives since the Maastricht criteria of the public debt to GDP ratio of 60% was at the heart of the rule design.

**Indexation rules for public sector wages and for pensions**

The indexation rules have been the most successful of the quantitative fiscal rules introduced in Serbia. These rules represent a form of expenditure rules regulating growth of two major components of the Serbian budget: wages of the public sector employees and pensions. Given the size of the public sector in Serbia and given the importance of the budget transfers to the Pension Fund to cover the deficit of the latter, indexation avoids destabilizing discretionary increases. In particular, it shelters the budget from political pressures related to the pensions’ evolution – this point is especially valid for Serbia given the relative size of the pension-eligible age groups.

The downside is that the rule bears by definition only on expenditures without relation with revenues. Thus, in case of a shortfall of fiscal revenue the indexation of the salaries and pensions would be compatible with an increased fiscal deficit.

Furthermore, there are technical difficulties in measuring accurately the CPI growth of the preceding six months in the context of high and volatile inflation.

The following table provides a summary of advantages and shortcomings for each of the three Serbian quantitative fiscal rules:

	Advantages	Shortcomings
<b>Fiscal Deficit Rule</b>	<ul style="list-style-type: none"> <li>• Accounts well for macroeconomic shocks</li> </ul>	<ul style="list-style-type: none"> <li>• Empirical difficulty with assessing the output gap (especially in the medium run)</li> <li>• Parameters chosen are too ambitious which undermines credibility</li> </ul>
<b>45% cap on the Debt-to-GDP ratio</b>	<ul style="list-style-type: none"> <li>• An indicator is clear and easy to monitor</li> <li>• Consistent with Serbia’s EU accession path (designed with the Maastricht criteria in mind)</li> </ul>	<ul style="list-style-type: none"> <li>• Public debt in FX, thus exchange rate evolution (factor out of control of the fiscal authority) is the major driver; government has limited leverage over this ratio</li> </ul>
<b>Indexation rules for pensions and public sector wages</b>	<ul style="list-style-type: none"> <li>• Clear and easy to implement</li> <li>• Entirely under control of the fiscal authority</li> <li>• Sizable impact on the fiscal deficit</li> </ul>	<ul style="list-style-type: none"> <li>• Bears exclusively on expenditures</li> <li>• Difficulty to measure CPI growth over previous six months induced uncertainty about fiscal expenditures evolution</li> </ul>

The degree of compliance with a fiscal rule is proportional to the extent of the Serbian government control over the aggregates involved in this rule. This hints at the Serbian government willingness to comply with these rules: the rules the most under control of the government are also the most successfully implemented. In that sense, given that political willingness to implement the rules is a key success factor, the MFA played an important role in pushing for the implementation of the fiscal rules and providing incentive (of political rather than financial nature) to the Serbian government to design and implement the fiscal rules and comply with the latter to the best possible extent.

Although some of the design features could clearly be improved upon, there is no panacea in the design of the fiscal rules: any rule would have its' shortcomings. The main contribution of the fiscal rules to the Serbian macroeconomic stability is to provide guidance over the objectives towards which the fiscal policy shall be anchored. Thus, the main benefit of the fiscal responsibility framework in Serbia is internal (introduce the public finance targets as key objectives in the public discussion) rather than external (gain credibility with the private economic agents). In spite of the two of the three fiscal rules falling short of their objectives, it can be argued that without these rules the fiscal deficit and the public debt outcomes for Serbia would have been even less favourable

## MFA effects on external financial sustainability

The aim of this section is twofold. First, it summarizes the findings from the previous sections and infers the evolution of Serbia's external financial sustainability over several criteria with a specific focus on public debt. Second, the section investigates the impact of different counterfactual scenarios occurring in the event of "no MFA" on the public debt.

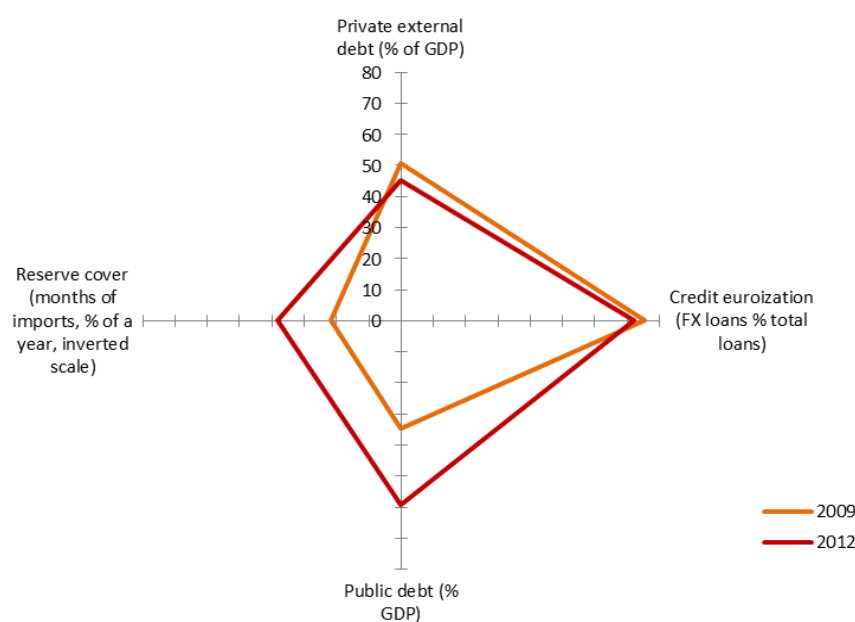
### Evolution of Serbia's external financial sustainability indicators

The evolution, the current situation and the perspective of the Serbian external financial sustainability are assessed along five main indicators, which are key measures of the external financial sustainability:

- Current account balance – in percentage of GDP (cf. previous sections)
- Public debt – stock of debt, internal and external, in percentage of GDP
- Private external debt – stock of debt in percentage of GDP
- Credit euroisation – share of loans to households and firms denominated in foreign currency
- Reserve cover – number of months of imports covered by the NBS foreign currency reserves)

The following graph summarizes the main characteristics of the financial external situation of Serbia in 2009 (beginning of the crisis) and in 2012 (last available figures).

**Figure 20 - Serbia's external vulnerability indicators, 2009 and 2012**



Source: National Bank of Serbia

The values of the four indicators connected form an area. Relatively larger area indicates qualitatively higher total vulnerability since higher value of each of the indicators. The importance of the different indicators in the overall vulnerability assessment and their numeric values cannot be compared between them (e.g. one cannot say that the increase of the FX reserves by one month of import is more or less important than the decrease of the euroisation by one percentage point). Nevertheless, a qualitative comparison can be made based on the evolution trends of the four indicators. Overall, from 2009 to 2012, vulnerability level increased, due in particular to a strong increase in the ratio of public debt to GDP and in spite of slightly decreasing levels of private external indebtedness.

The following figure provides a more detailed picture of the evolutions of these indicators along with the current account balance figures:

**Figure 21 - Serbia's external vulnerability indicators, 2008-2012**

	2009	2010	2011	2012
<b>Current account balance, in % of GDP</b>	-6.6	-6.7	-9.1	-10.5
<b>Public debt, in % GDP</b>	34.8	44.5	48.2	59.3
<b>Private external debt, in % of GDP</b>	50.9	52.5	42.4	45.2
<b>% of FX loans in total loans</b>	75.3	69.5	70.8	72.0
<b>Gross international reserves, months of imports</b>	9.4	8.1	8.7	7.4

*Source: National Bank of Serbia*

The period 2002-2008 saw a continuing increase in the private external debt (cf. previous sections). After 2009 the private external debt to GDP ratio fell to 45.2% in 2012.

The share of foreign currency loans in the total loans to Serbian households and firms slightly decreased from 2009 to 2012. However, this decrease is attributable to the variation around the mean rather than a trend.

Foreign currency reserves exceeded the six-month benchmark of the NBS all through the period 2009-2012.

Over the next subsections the evolution for each of them is examined separately and in detail.

### **Public debt**

Public debt is an important element of external financial sustainability because of the detrimental macroeconomic effects of high debt/GDP ratio. These effects are exercised through three channels:

- Crowding out private investment. High public debt captures an important part of domestic savings which reduces the volume of lending to the private sector (and possibly pushes up interest rates). Thus public debt crowds out private investment. This channel is specifically important in the case of emerging countries where on the one hand reliance on credit in financing of firms is relatively more important and, on the other hand, the shortfall of domestic savings is only partially offset by private external borrowing.

- Necessity to generate high primary surplus. No country could borrow without bound, thus to stabilise the public debt/GDP ratio, the country must generate a primary fiscal surplus.

The debt evolution is given by the following formula:

$$\Delta \frac{B_t}{Y_t} = (i - y) \frac{B_{t-1}}{Y_{t-1}} + \frac{G_t - T_t}{Y_t}$$

Where  $B_{t-1}$  is the stock of debt of the previous year;  $Y_{t-1}$  is the GDP of the previous year;  $i$  is the average nominal interest rate on the existing debt;  $y$  is the nominal GDP growth rate;  $G_t$  is public expenditure and  $T_t$  is public revenue.

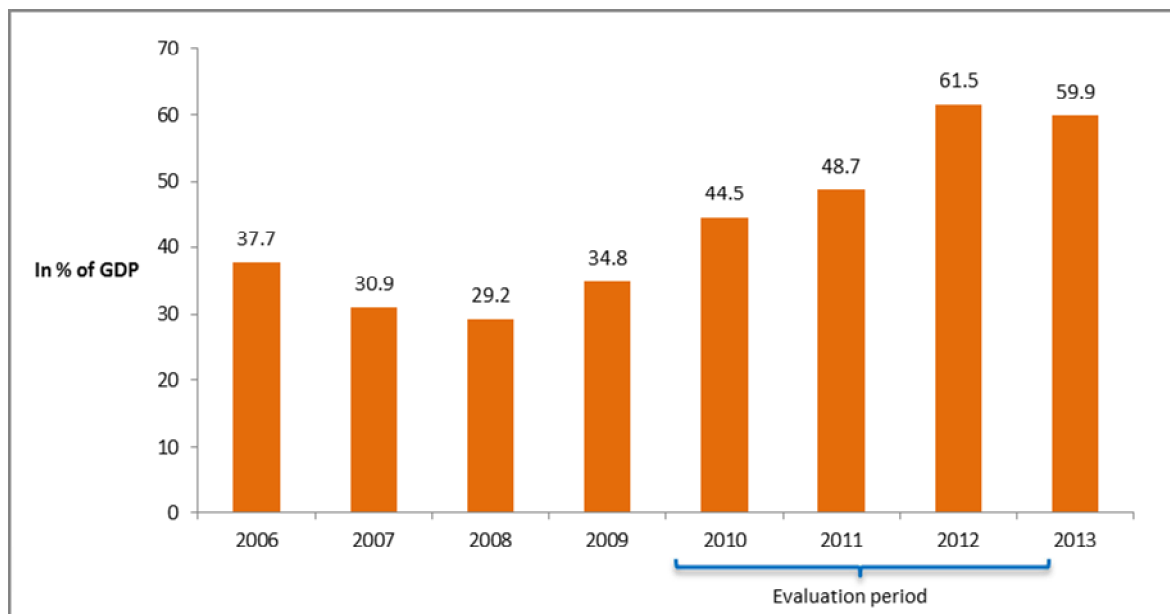
Over the last years the weighted average nominal interest rate paid on public debt has been higher than the nominal GDP growth rate, stabilisation of the public debt/GDP ratio requires achieving primary fiscal surplus equal to the differential between these terms multiplied by the existing debt/GDP ratio. Thus, higher debt/GDP ratio would impose higher primary surplus, all the while the country has faced important fiscal deficit issues.

- Increasing threat of self-fulfilling debt crisis. At the beginning of 2013, around 60% of the Serbian debt was held by non-residents<sup>21</sup>. This leaves the country vulnerable to a (largely self-fulfilling) debt crisis: if a growing public debt/GDP ratio spurred fears of insolvency, the country could face increasing interest rates on its government securities which would, in turn, effectively increase the probability of default. In 2012, interest rates on Serbia's public debt were increasing as a result of inflationary pressures, looser budgetary policy, and general flight to safer assets in Europe.

In the context of the MFA, capping the public debt at the level of 45% of GDP was part of the quantitative fiscal rules introduced in 2010. However, in the following years this level was exceeded. The following table shows the evolution of the public debt-to-GDP<sup>22</sup> ratios in 2002-2013:

<sup>21</sup> Update for investors, January 2013, Public Debt Administration, Ministry of Finance and Economy, Republic of Serbia

<sup>22</sup> 'Public debt' here refers to all the direct and contingent liabilities of the central government, both internal and external.

**Figure 22 – Public (central government) debt of Serbia, 2006 - March 2013**

**Source: Ministry of Economy and Finance of Serbia**

The crisis of 2008-2009 was a turning point in the evolution of the public debt-to-GDP ratio. It had been falling since 2002, going from 72.9% of GDP that year to 29.2% of GDP in 2008. However, from 2008 to 2012 the public debt of Serbia doubled in percentage of GDP reaching 61.5% in 2012. This evolution has been driven by two major factors: the Dinar depreciation which made the debt, predominantly labelled in foreign currency, more expensive and a GDP growth which remained weak in 2010-11 and negative in 2009 and 2012. Slow or negative GDP growth led increasing unemployment (cf. **Figure 11** Unemployment rate, Serbia, 2001-2012) and fall in fiscal revenue, which generated a growing fiscal deficit. The fiscal deficit exceeding the legally fixed threshold led to the accumulation of the public debt also well beyond the legal upper limit of 45% of GDP immediately after the introduction of the fiscal responsibility legislation.

Along with increasing fiscal deficit, nominal Dinar depreciation was another explanatory factor of the increase in public debt over the period 2010-2011.

The following table shows the currency structure of Serbian public liabilities:



**Table 23 - Currency structure of the Serbian public debt<sup>23</sup> 2009-2012 (in %)**

	2009	2010	2011	2012
<b>SDR</b>	4.7	7.7	6.6	5.9
<b>EUR</b>	66.7	60.4	57.3	52.8
<b>USD</b>	12.9	14.4	17.8	20.4
<b>CHF</b>	1.9	1.7	1.3	1.3
<b>RSD</b>	12.7	14.8	16.2	18.9
<b>Other</b>	1.1	1	0.8	0.7
<b>Total</b>	100	100	100	100

**Source: Ministry of Economy and Finance of Serbia, Public Debt Administration**

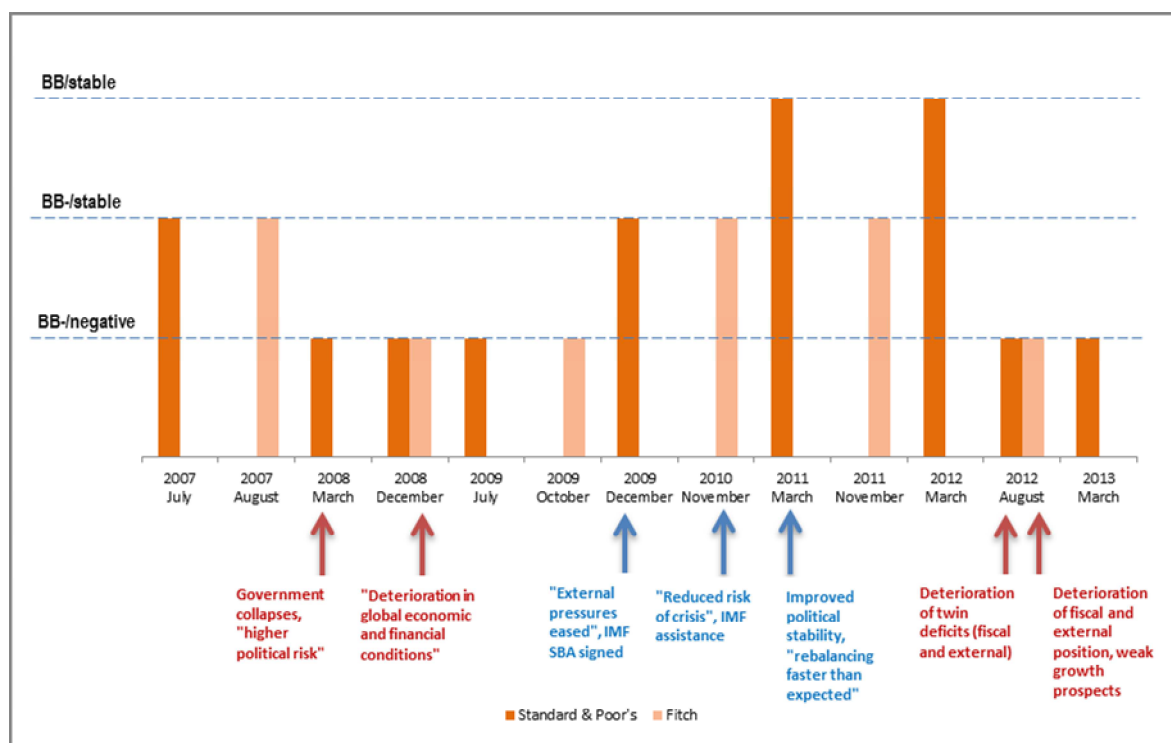
Foreign-currency-denominated liabilities have represented the largest proportion of the Serbian public debt. The Euro-denominated debt alone represented a share of two third to one half of the Serbian public debt over the period. However, through 2009-2012 the trend has been to the increase of the share of Dinar-denominated debt: from 12.7% to 18.9% of the total. This modification of the currency structure of the public debt is due to relatively larger share of new borrowing in Dinars. Thus in 2011, for instance, the Serbian government intensified issues of Dinar-denominated securities in 2011 in order to finance the fiscal deficit. This increased the share of Dinar-denominated public liabilities to around 16.2% by the end of that year. "Dinarisation" of the public debt is one of the priorities of the Serbian government's public debt management strategy.

Serbian government securities are given a sovereign rating from the 1 November 2004 by Standard & Poor's and from the 19 May 2005 by Fitch Ratings.

The following graph shows the evolution of Serbia's sovereign credit rating given by Standard & Poor's and Fitch from June 2007 (pre-crisis) to March 2013.

<sup>23</sup> Please note that internal borrowing – borrowing from domestic banks – can also be denominated in foreign currency.

Figure 23 - Serbia's sovereign credit rating



Source: NBS, Standard & Poor's, Fitch

Through the whole period 2007-2013 Serbia has maintained its BB- grade from both Standard & Poor's and Fitch with an exception of the March 2011-August 2012 period when S & P upgraded Serbia's grade by one notch. BB- corresponds to the speculative grade described as "Capacity to meet financial commitments, risk of changes in business environment and economic conditions, significant credit risk". This signals that in the medium-long run perspective its external financial situation as measured by the credit risk has been stable.

On March 11, 2008, S & P revised its outlook on Serbia from stable to negative. This decision was motivated by political tensions with a collapse of the Serbian government and a threat of a new government dominated by radicals, which would damage Serbia's EU prospects. For S & P, **Serbia's EU integration perspective is "a key supporting factor for its sovereign rating"**. In addition, government change was feared to weaken fiscal responsibility hence increasing Serbian external vulnerability.

On December 23, 2008, Fitch followed, revising the outlooks on Serbia's Long-term Issuer Default ratings (IDRs) from stable to negative. This decision was motivated by the deterioration of the global economic outlook and increasing credit risks for Serbia given the country's "high external debt stock, wide current account deficit and large external financing requirement".

The revision of Serbia's outlook from negative to stable by S & P on December 1, 2009 was based on the large reduction in Serbia's current account deficit, stabilisation of the Dinar exchange rate and government's **commitment to implement the programme agreed with the IMF**, in particular the fiscal consolidation.

On November 11, 2010, Fitch also changed Serbia's outlook from negative to stable. This change was due to reduction of external risks related to reduced balance of payments imbalances, increase in FX reserves and reduction in short-term debt.

The upgrade of Serbian sovereign credit rating by one notch by S & P on March 16 2011 reflects improvements in political stability, expectations of improvements in fiscal and external performance and “the **emergence of political consensus supportive of European integration**” expected “to anchor the direction of economic policymaking”.

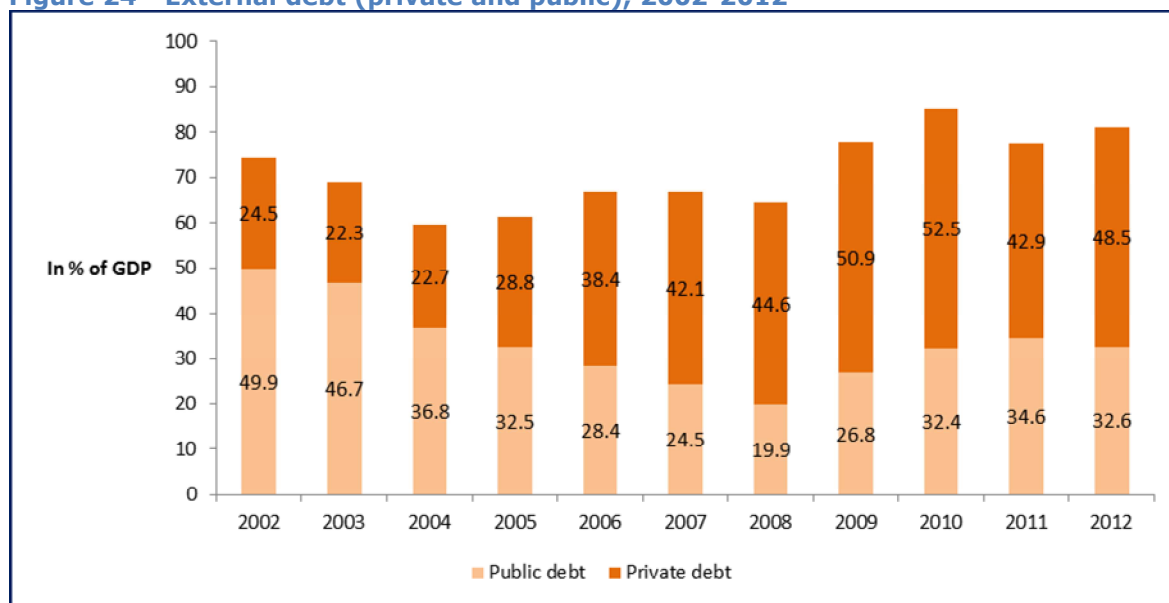
On August 7, 2012, S & P downgraded Serbian sovereign credit rating by one notch, with a negative outlook. This downgrade was motivated by the deterioration of Serbian fiscal deficit and widening current account deficit. This could seriously strain internal and external financial sustainability. According to S & P, Serbian authorities failed in their commitment to fiscal stability and promote confidence in the NBS commitment to inflation targeting. On the one hand, Serbian authorities’ relaxation of the fiscal stance, the IMF suspended its Stand-By Arrangement with Serbia. On the other hand, legislative changes made in 2012 threaten independence of the National Bank of Serbia.

The downgrade by S & P was followed by a change in outlook for Serbia by Fitch from stable to negative on August, 16 2012 on similar grounds.

#### ***Private external debt***

In the context of high euroisation and important private external debt, a depreciation of the Dinar would induce massive growth of the debt burden and subsequent wave of bankruptcies of the private borrowers – firms and households – unless the state steps in. In the latter case, either the NBS tries to prevent or smooth currency depreciation (which requires considerable spending of FX reserves) or the state takes over at least a portion of the burden. In addition, slow – or negative – growth, which characterized Serbia in 2009-2012, would put a significant strain on the borrowers’ ability to face its liabilities. Thus the level of private external debt is a relevant indicator to assess vulnerability of the Serbian external financial position.

The following graph shows the evolution of the private external debt in Serbia from 2002 to 2012:

**Figure 24 - External debt (private and public), 2002-2012**

Source: National Bank of Serbia

From 64.6% of GDP in 2008, before the crisis, the total external debt in Serbia reached 77.7% of GDP at the end of 2009 and 84.9% of GDP in 2010 – an increase of around 20 percentage points in two years. This represents a significantly higher level of indebtedness than the average of the upper middle income countries group in which Serbia is classified<sup>24</sup>.

Public and private sector contributed more or less proportionally to this increase: 55% is attributable to higher public external debt (which stood at 27.2% of GDP in 2010) and 45% is due to higher private external debt burden (which accounted for 54.4% of GDP in 2010)<sup>25</sup>.

### Credit "euroisation"

The importance of credit euroisation is twofold. First, the volume of credit delivered in foreign currency conditions the effectiveness of the monetary policy. A high proportion of credit in FX means that the National Bank of Serbia policy instruments – policy rate changes or open market interventions – affecting the monetary base in Dinars have limited impact on the volume of loans. Second, high proportion of foreign currency-denominated loans in the total of loans to firms and households exposes the debtors to significant foreign exchange risk and therefore de facto constrains the NBS to avoid sharp depreciation of the national currency that could create solvency issues for domestic economic agents.

**Table 24 - Currency composition of credit to households and firms, in %, 2008-2012**

	2008	2009	2010	2011	2012
Loans in Dinars	29.5	24.7	30.5	30.6	28
Loans in FX	70.5	75.3	69.5	69.4	72.0

Source: National Bank of Serbia

<sup>24</sup> According to World Bank classification

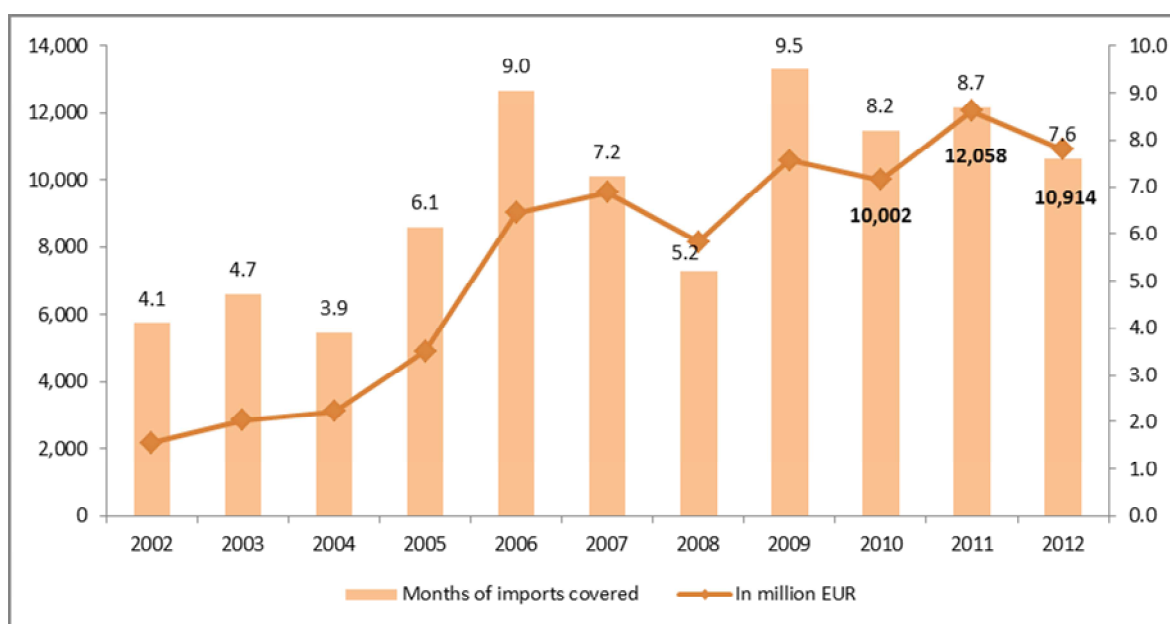
<sup>25</sup> Source: IMF.

Thus, the official strategy of the Government and of the National Bank of Serbia is towards the “Dinarisation” of the economy. However, as the graph shows, the proportion of loans in foreign currency remained stable over the period 2008-2012: around 71% of the loans to households and firms have been granted in foreign currency. The most recent estimates indicate the proportion of loans in foreign currency at 71.8% of the total loans to households and firms in the first quarter of 2013.

### Reserve cover

The level of foreign exchange reserves of the NBS is an important measure of the sustainability of the current account deficit in the short run, since FX reserves constitute the main source of liquid assets to settle all current and future external obligations in good time. The most common measure of external liquidity is the ratio of foreign exchange reserves to imports of goods and services (in months). The economic literature considers as adequate the foreign exchange reserves level covering six months of imports as an appropriate level, the National Bank of Serbia litigation of keeping its.

Figure 25 - Foreign exchange reserves of the NBS, 2002-2012



Source: National Bank of Serbia

In 2009, foreign exchange reserves of the National Bank of Serbia increased by EUR 2,441.5 million or 29.9% relative to 2008, reaching EUR 10,601.9 million at the end of December. Around **two thirds of this increase** resulted from the **inflow of funds from the IMF** in the framework of the 2009-2011 SBA representing the total amount of EUR 1.137 billion. Privatisation receipts (Petroleum Industry of Serbia) brought FX funds for EUR 0.4 billion. Over 2009, the National Bank of Serbia sold around EUR 0.66 billion on the foreign exchange markets “to boost foreign exchange supply in the market and ease excessive daily volatility of the exchange rate of the dinar”.

For the three years of the evaluation period 2010-2012 the foreign exchanges reserves stood well above the requirement of 6 months of imports.

By the end of 2010, the NBS’s foreign exchange reserves represented EUR 10 billion, down by EUR 600 million relative to the end of 2009 (a decline by 5.7%). This

corresponded to 8.2 months of imports, well above the minimum requirement in spite of the sharp decline of that year. This level of reserves represented 417% of the monetary base (M1).

On 31 December 2011, the foreign exchange reserves represented around EUR 12 billion, up by EUR 2.055 billion from the end of 2010 which covered 429.6% coverage of the monetary base and represented the equivalent of 8.6 months of imports. Over the year the major inflow came from the sale of euro-denominated government securities – EUR 1.258 billion, of which EUR 0.534 billion was sold domestically and EUR 0.724 billion on the international financial markets. In April 2011, EUR 51.7 million was disbursed under the 2009-2011 IMF SBA.

***Peer comparison: Serbia vs. main regional economies***

It is important to assess Serbia's position with respect to its peers. The two following tables compare Serbian vulnerability indicators against other South-Eastern European transition countries across several dimensions.

Figure 26 - External financial vulnerability indicators – Serbia vs. regional peers

	Public debt, 2011	External debt, % GDP, end 2011			Gross FX reserves			Bank deposits	Loans/ deposits
	% GDP	Total	Private	Short term	in % of GDP	in % of short term debt	in months of imports	% of GDP	Private sector, in %
Croatia	46.7	94.9	68.8	29.6	23.2	78.3	7.2	63.1	112.5
Estonia*	6.1	98.5	94.8	52.0	...	...	...	53.2	154.2
Hungary	81.4	123.5	72.6	33.3	38.3	97.4	4.5	42.2	117.3
Latvia	42.2	137.2	107.0	56.7	22.5	45.7	5.1	36.5	191.6
Lithuania	38.5	76.1	48.3	34.4	19.1	53.3	2.8	38.2	130.8
Poland	56.4	64.8	55.1	20.7	19.0	100.6	5.4	44.9	115.2
Slovak Republic*	43.3	77.3	33.5	...	...	...	...	48.4	96.8
Slovenia*	46.9	131.3	65.7	...	...	...	...	52.6	152.4
Albania	58.6	33.7	8.9	3.3	18.3	553.5	4.2	69.7	59.0
Bosnia and Herzegovina	40.3	46.5	22.2	11.8	19.9	167.9	4.0	41.9	140.6
Bulgaria	15.5	87.1	80.2	30.2	31.5	104.3	5.6	63.8	112.1
FYR Macedonia	27.7	65.0	45.5	24.0	21.5	89.8	3.6	48.7	94.8
Kosovo	...	...	...	...	...	...	...	...	...
Montenegro	46.9	94.6	...	...	11.0	...	2.2	53.4	101.9
Romania	33.0	68.4	45.3	24.5	20.5	83.7	6.1	33.8	115.9
<b>Serbia</b>	<b>48.7</b>	<b>84.9</b>	<b>59.8</b>	<b>18.8</b>	<b>27.0</b>	<b>143.2</b>	<b>6.3</b>	<b>43.5</b>	<b>138.7</b>

Source: EBRD

The figures in blue signify that on the specific indicator the country performs relatively better than Serbia, figures in red mark a weaker performance compared to Serbia.

\* country-member of the Euro zone.

Figure 27 - External financial vulnerability indicators – Serbia vs. regional peers 2

	Sovereign rating		Domestic FX loan stocks			Share FX credit	Non-performing loans	Unemployment
	S&P	Fitch	Total private sector	to firms, % GDP	to households, % GDP	% of total loan stock	% of total loans	% of total labour force
Croatia	BB+	BBB-	44.9	16.2	28.7	71.2	14.1	14.5
Estonia*	AA-	A+	2.0	2.0	0.0	2.4	3.3	9.6
Hungary	BB	BB+	28.5	13.7	14.8	54.3	15.6	10.8
Latvia	BBB	BBB	59.0	29.0	30.1	86.7	12.0	14.2
Lithuania	BBB	BBB	36.6	18.9	17.6	72.5	15.8	12.4
Poland	A-	A-	16.3	4.0	12.5	31.6	8.8	10.4
Slovak Republic*	A	A+	0.4	0.4	0.0	0.6	5.4	14.0
Slovenia*	A	A-	3.6	0.7	2.9	4.5	17.0	8.6
Albania	B+	...	25.6	19.6	6.0	62.2	22.7	13.3
Bosnia and Herzegovina	B	...	36.8	19.4	17.4	66.9	12.7	27.6
Bulgaria	BBB	BBB-	45.3	35.3	10.1	63.4	16.9	11.5
FYR Macedonia	BB	BB+	25.6	16.8	8.9	54.7	10.9	30.6
Kosovo	...	...	...	...	...	...	7.0	45.1
Montenegro	BB-	...	...	...	...	0.0	13.2	18.1
Romania	BB+	BBB-	24.8	12.4	12.3	63.3	17.3	6.8
<b>Serbia</b>	<b>BB-</b>	<b>BB-</b>	<b>43.3</b>	<b>29.7</b>	<b>13.6</b>	<b>71.8</b>	<b>19.9</b>	<b>25.5</b>

Source: EBRD

The figures in blue signify that on the specific indicator the country performs relatively better than Serbia, figures in red mark a weaker performance compared to Serbia.

\* country-member of the Euro zone



On a comparative basis, Serbia performs relatively better in terms of foreign exchange reserve cushion. However, this performance is mainly the flipside of a relatively higher degree of euroisation and therefore higher exchange rate risk of the country.

Serbia's external debt is in line with the comparable countries' average, for the total and for the private debt. The country performs better than its peers in terms of short-term debt exposure.

On the downside, the relative weight of the public debt (48.7% of GDP for Serbia against 41.7% of the peer average) and the share of FX loans in the total loans, considerably higher in Serbia than for other countries under consideration. The share of non-performing loans is equally considerably higher for Serbia (around 20% against around 12.9% of the peer average). However, according to Serbian private sector and international financial institutions' stakeholders interviewed, Serbian banks have provisioned for these losses, thus fragility of the Serbian banking and financial system should not be overestimated by the high NPL figure.

Finally, unemployment rate is much lower in the peer countries in comparison to Serbia. From the sixteen countries only Bosnia, Former Yugoslavian Republic of Macedonia and Kosovo exhibit lower performance than Serbia.

Partly as a consequence of the comparison of the abovementioned indicators, the sovereign rating of Serbia is among the lowest in this peer comparison to other fourteen countries with only Albania and Bosnia rated lower by Standard & Poor's and Montenegro having the same rating as Serbia. According to Fitch, Serbia is a worst performer (but the peer sample is reduced to eleven countries). However, in addition to the economic vulnerability assessment, the difference in sovereign rating between Serbia and its peers is likely to be driven by the political variable of belonging (or not) to the European Union and the Euro zone.

## **Quantitative assessment of the external financial and public debt sustainability evolution 2010-2012**

The external financial sustainability has two related and partly overlapping dimensions. The first dimension is related to the dynamic of the public debt and bears on the Serbia's capacity to stabilize the public debt-to-GDP ratio in the medium-long run. The second dimension is related to the capacity of the Serbian economy to produce current account balance which would stabilize the external debt in the medium-long run. The task of this subsection is to estimate the relative contribution of the different factors (exchange rate, primary deficit, real interest rate, etc) in the evolution of the Serbian public debt or the Serbian external debt (both public and private). In order to address these two dimensions we adopt the methodology developed and used by the IMF for its assessment of countries' external debt sustainability and of public debt sustainability.

### ***Serbia's public debt sustainability***

The public debt sustainability refers to the evolution of the public debt to GDP ratio. The change in the public debt to GDP ratio has two main components: the change in the primary balance and the automatic debt dynamic. The debt evolution is given by the following formula:

$$\Delta \frac{B_t}{Y_t} = (i - y) \frac{B_{t-1}}{Y_{t-1}} + \frac{G_t - T_t}{Y_t}$$

Where  $B_{t-1}$  is the stock of debt of the previous year;  $Y_{t-1}$  is the GDP of the previous year;  $i$  is the average nominal interest rate on the existing debt;  $y$  is the nominal GDP growth rate;  $G_t$  is public expenditure and  $T_t$  is public revenue.

The primary balance refers to the budget balance before interest payments on the existing debt.

The automatic debt dynamic formula used by the IMF is given below:

$$d_{t-1} * \frac{\overbrace{i - p(1+g)}^{\text{real interest rate contribution}} \quad \overbrace{-g}^{\text{real growth rate contribution}} \quad + \quad \overbrace{ae(1+i)}^{\text{exchange rate contribution}}}{1 + g_t + p + gp}$$

Where  $i$  is the average nominal interest rate on the existing debt;  $g$  is the real GDP growth rate;  $p$  is the inflation rate;  $a$  is the share of FX-denominated debt in the total public debt stock of the previous year,  $e$  is the depreciation rate of the Dinar with respect to the euro and  $d_{t-1}$  is the public debt stock of the preceding year.

NB: The formula above is the same as the debt evolution formula stated before with an addendum of the exchange rate contribution parameter.

Thus, the task is to assess numerically the contribution of these factors to the evolution of the Serbian public debt. The table below shows the values of the different parameters of the debt sustainability framework for the evaluation period 2010-2012

Table 25 Serbia's public debt sustainability

	2010	2011	2012
Public sector debt	44.5	48.7	61.5
Change in public sector debt (=1+2+3+4)	+9.7	+4.2	+12.8
1. Primary deficit contribution	+3.5	+5.4	+4.0
2. Automatic debt dynamics contribution (a + b)	+5.8	-1.0	+8.8
<b>a) Contribution from interest rate/growth rate differential</b>	<b>+1.3</b>	<b>-0.6</b>	<b>+4.0</b>
— <i>Of which contribution from real interest rate</i>	<b>+1.6</b>	<b>-0.0</b>	<b>+3.1</b>
— <i>Of which contribution from real growth rate</i>	<b>-0.3</b>	<b>-0.6</b>	<b>+0.9</b>
<b>b) Contribution from exchange rate depreciation</b>	<b>+4.5</b>	<b>-0.4</b>	<b>+4.8</b>
3. Contribution from other identified debt-creating flows	-0.2	-0.1	0.0
4. Residual, including asset changes	-0.2	-0.1	0.0
Key underlying macroeconomic and fiscal assumptions			
<b>Share of the previous year public debt stock in foreign currency (in %)</b>	<b>87.3</b>	<b>85.2</b>	<b>83.8</b>
<b>Real GDP growth (in %)</b>	<b>1</b>	<b>1.6</b>	<b>-2</b>
<b>Average nominal interest rate on public debt (in %)</b>	<b>11.3</b>	<b>13</b>	<b>13.5</b>
<b>Average real interest rate</b>	<b>5.1</b>	<b>0.1</b>	<b>6.5</b>
<b>Nominal depreciation</b>	<b>14.2</b>	<b>-1</b>	<b>10.9</b>
<b>Inflation rate</b>	<b>6.2</b>	<b>13</b>	<b>7</b>

Source: International Monetary Fund, PwC computations

In 2010, the major factor explaining the increase in the public debt to GDP ratio is the depreciation of the Dinar with respect to the main borrowing currencies and in particular with respect to the Euro. This depreciation alone increased the public debt by 4.5 percentage points of GDP. The primary deficit contribution was the second most important factor. High inflation was accompanied by high nominal interest rates on the new debt, thus the contribution from the real interest rate was to increase the stock of public debt to GDP. Finally, the modest but positive economic growth marginally contributed to lower the debt-to-GDP ratio.

In 2011, the increase in the public debt is due entirely to the increase of the primary budget deficit, driven mainly by a decrease in fiscal revenues stronger than the decrease in public expenditures. By contrast, the automatic debt dynamics pushed the debt-to-GDP ratio down. Both the real interest rate and the real growth rate contributions to the growth in public debt were negative and the hierarchy between the real interest rate and the real growth rate contributed to lower the public debt to GDP ratio. Slight appreciation of the Dinar lowered the Serbian debt by 0.4 percentage points of GDP.

In 2012 both the primary deficit and the automatic debt dynamics (strongly) increased the debt to GDP ratio – from 48.7 to 61.5 percent of GDP – with the automatic dynamics contributing for around two third of the increase while the primary deficit accounting for about one third.

### **Serbia's external debt sustainability**

The external debt sustainability is measured as the ratio of the external debt (both public and private) to GDP.

The three major components of the external debt evolution are the current account evolution, the automatic debt dynamics and the net non-debt creating capital inflows.

The automatic debt dynamic formula is given below:

$$d_{t-1} * \frac{[r - g - \rho * (1 + g) + \varepsilon \alpha (1 + r)]}{(1 + g + \rho + g\rho)}$$

Where  $r$  is the nominal effective interest rate on external debt,  $\rho$  is the change in domestic GDP deflator in euro terms,  $g$  is the real GDP growth rate,  $\alpha$  is the share of FX-denominated debt in the total public debt stock of the previous year,  $\varepsilon$  is the depreciation rate of the Dinar with respect to the euro in nominal terms and  $d_{t-1}$  is the public debt stock of the preceding year.

The table below shows the values of the different parameters of the external debt sustainability framework for the evaluation period 2010-2012.

**Table 26 - Serbia's external debt sustainability**

	2010	2011	2012
External debt	85.4	76.7	85.8
Change in external debt (=1+2+3+4)	+7.6	-8.7	+9.1
1. Current account deficit contribution	+4.3	+6.6	+7.8
2. Automatic debt dynamics contribution (a + b)	+5.4	-6.8	+5.0
— <b>Of which contribution from nominal interest rate</b>	<b>+2.4</b>	<b>+2.5</b>	<b>+2.7</b>
— <b>Of which contribution from real growth rate</b>	<b>-0.8</b>	<b>-1.2</b>	<b>+1.4</b>
— <b>Of which contribution from price and exchange rate changes</b>	+3.8	-8.1	+0.9
3. Net non-debt-creating capital inflows	-3.1	-6.2	-0.6
4. Residual, including asset changes	+0.9	-2.3	-3.0

**Source: International Monetary Fund**

In 2010, the current account deficit was the main driver of growth in the external debt-to-GDP ratio, followed by the price and nominal exchange rate movement. Real GDP growth contributed to slightly moderate the increase in external debt. Thus, overall, the external debt-to-GDP ratio increase represented 7.6 percentage points of GDP.

In 2011, the external debt in % of GDP went down sharply, largely thanks to an inflow of FDI and portfolio investment and to favourable automatic debt dynamics. These two developments more than offset the widening of the current account deficit which was pushing the external debt up. Slight nominal appreciation of the Dinar made the external debt slightly cheaper.

In 2012, the external debt to GDP ratio increased again, by 9.1 percentage points. This increase was fuelled both by an increase in the current account deficit and positive contribution from all the components of the automatic debt dynamics: real GDP fell by 2 percent that year, while the Dinar depreciated both in nominal and real terms.

## MFA contribution to medium-long term external financial sustainability

This section seeks to assess the MFA impact on the Serbia's external financial sustainability through three channels:

- Direct impact on the public debt cost and structure – this impact goes through the interest rates differentials between the MFA loan and other types of Serbian government loans in 2011; to this interest rates differential effect we add an effect on the Serbian public debt outstanding of a potential Dinar depreciation that would have occurred in absence of the MFA loan
- Indirect impact on the interest rate – the impact is made through fluctuations of the markets sentiment regarding the RSD nominal exchange rate, interests on the Serbian debt and ultimately, probability of default;
- Indirect impact on the public debt volume – this impact goes through the effects of the structural reforms – which were pushed for by the MFA – on the deficit and therefore on the public debt sustainability

### ***The "cheaper debt" channel: the MFA reduced the medium-long term debt burden***

In June 2011 – the month preceding the disbursement of the MFA loan – the Serbian liabilities stood at EUR 13.237 billion of which external debt, including both direct and contingent liabilities, represented EUR 7.32 billion (55.3%). By the end of 2011, the total debt stock of Serbia amounted to EUR 14.5 billion. Overall, in 2011 the Republic of Serbia's total debt stock increased by EUR 2.44 billion, including EUR 1.57 billion borrowed externally.

The MFA loan represented 4.1% of the total net borrowing in 2011<sup>26</sup> and 6.4% of the total external borrowing that year. The share of the MFA loan in the total Serbian debt stock of the end of 2011, however, represented only around 0.7%.

The following table presents the nominal interest rates on the newly emitted securities of the Serbian government in 2011 by maturity:

**Table 27 - Nominal interest rates on new government securities of Serbia, 2011**

Weighted average nominal interest rate on Serbian government securities in RSD						Weighted average nominal interest rate on the Serbian government securities in EUR			
3 months	6 months	12 months	18 months	2 years	3 years	12 months	18 months	3 years	15 years
12.69	12.44	12.90	12.92	13.06	14.38	4.48	5.40	5.00	5.85

**Source: NBS**

The weighted average nominal interest rate on the new borrowing in euro for the Serbian government in 2011 stood at 5.18%.

<sup>26</sup> This refers exclusively to the disbursed 1<sup>st</sup> tranche.

The MFA loan was granted at the nominal interest rate of 3.382% per year at an average maturity of seven years. No government security had been emitted over 2011 at comparable maturity, thus comparison is not straightforward. Nevertheless, the examination of the nominal interest rates on the newly emitted securities shows that the cost of the debt for the Serbian government stood consistently above the interest rate to be paid on the MFA loan: on average the interest rates on the new debt in euro in 2011 were at 5.18% with a distribution from 4.48% to 5.85%. The nominal interest rates on the debt in Dinars ranged between 12.44% and 14.38% (but the maturities did not exceed three years). Thus, in absence of an MFA loan, if the Serbian government would have borrowed on the markets under the conditions prevailing and at the rates presented above, the cost of debt would have undoubtedly been higher. This qualitative result is robust.

Any quantitative estimation of the cost of substitution of the private debt to the MFA debt is necessarily speculative given the uncertainty over the amount that the Serbian government would have borrowed and the breakdown of this borrowing between loans in Dinars and loans in Euro. In addition, the MFA loan was awarded at average maturity generally exceeding that of the Serbian government securities. Nevertheless, a first-hand approximation of this cost can be attempted based on the assumptions of our counterfactual analysis and findings of the Delphi.

The total cost of the MFA loan is found out from the formula:

$$\text{Cost MFA} = 100 * (1 + 0.0382)^7$$

Where 100 is the volume of the loan, 3.382% is the interest rate and 7 is the maturity.

The total cost of the MFA loan is equal to EUR 130.007 million.

The first-hand approximation of the cost of alternative borrowing is given by the formula

$$\text{Cost nonMFA} = 100 * (1 + 0.051825)^7$$

Where the interest rate of 5.1825% is an average of the nominal interest rate on the Serbian government securities in EUR at different maturities in 2011

The total cost of alternative borrowing is equal to EUR 142.431 million.

Comparing the two types of borrowing – MFA and borrowing on the private markets – reveals an additional cost of around EUR 12.424 million that the Serbian government would bear if it had to replace MFA debt by the debt in EUR contracted on the private markets. Given that this cost would have been spread over seven years and that, for instance, the interest payments of Serbia on its public debt in 2011 amounted to EUR 395.464 million, the impact of this additional cost would be very limited.

In addition to the direct effect of substituting cheaper MFA loan to more expensive loans contracted on the private markets, we should add the effect on the public debt of the Dinar depreciation occurring in case of an absence of the MFA. This effect is estimated based on our counterfactual analysis. Our modelling exercise shows that in absence of the MFA, the nominal effective exchange rate of the Dinar would depreciate by 0.00056%. Given that the public debt of Serbia stood at RSD 1,513,796 million by 31<sup>st</sup> of December 2011<sup>27</sup>, while the proportion of debt in foreign currency represented 83.8% of the Serbian public debt on that year, a Dinar depreciation – which we assume similar across all the foreign currencies – of 0.00056% would increase the stock of debt outstanding by RSD 7.1 million (not counting future interest payments). Qualitatively the effect is marginal and would not affect the public debt sustainability of Serbia.

***The “market fears” channel: averting downturn in private investors’ expectations***

This channel refers to the impact on the private investors’ confidence regarding Serbian public debt and solvency of the Serbian state.

The direct financial effect of the MFA is likely to have been limited, given the volume of the loan with respect to the relevant external financial sustainability indicators. As seen in the previous subsection, the cost differential between the MFA debt and the debt contracted on the private markets would have been very limited thus having proportionately very limited impact on the solvency of the Republic of Serbia. For the sake of comparison, the Dinar depreciation from 2011 to 2012 increased the public debt-to-GDP ratio by almost 6 percentage points. Furthermore, disbursement of the MFA loan occurred in 2011 while the probability of the crisis – according to the Delphi responses and the structured interviews – was at its height in 2009. In addition, Macro-Financial Assistance direct budget support did not imply commitment to intervene in case of a crisis occurrence. Thus, the design, the timing and the volume of the MFA were such that the perception by the private investors of its direct financial impact on Serbia’s sovereign creditworthiness – and therefore on the interest rates on the Serbian sovereign debt – was likely to have been near-zero.

Nevertheless, concerning Serbia’s sovereign credit rating, through the whole period 2007-2012 both S & P and by Fitch considered that Serbia’s EU integration prospects and related institutional and structural reforms as crucial factors supporting Serbia’s creditworthiness. In this perspective, Macro-Financial Assistance to Serbia would have bolstered confidence in the EU commitment to help Serbia through the global economic downturn and corresponding commitment of the Serbian authorities to implement structural reforms which, would bring down the primary budget deficit and ensure public debt sustainability and external financial sustainability. This was likely to have exercised an influence on Serbia’s sovereign credit rating.

***Direct structural impact: providing incentive for structural reforms that enhance medium-long term external financial sustainability***

The MFA contained a policy condition of the introduction of the quantitative fiscal rules. The successful implementation of these rules would build a fiscal responsibility framework would have a ceiling on the budget deficits enhancing public debt and external financial sustainability. The issue of implementation of the quantitative fiscal rules is fully addressed in one of the previous sections.

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<sup>27</sup> Source: Republic of Serbia, Ministry of Finance, Public Finance Bulletin, December 2011



## **Macro-Financial Assistance design and implementation**

This section addresses the question of how the structuring of the MFA and the modalities of its implementation shaped its impact. The chapter is organised according to the following logic.

The first subsection is dedicated to the synergies and complementarities of the MFA with the Instrument for Pre-Accession. In 2009-2010 Serbia was endowed with EUR 100 million of IPA funds in the form of untied budget support funding. The corresponding subsection reviews the potential synergies between MFA and IPA policy conditions.

The second subsection addresses the synergies between the MFA on the one hand and the IMF and the World Bank assistance programmes to Serbia on the other hand. We examine potential interactions under the angle of the financial and policy complementarity.

Finally, the third subsection investigates the issues related to the design, structuring and implementation of the MFA. We explain its main features and identify areas for improvement.

### **Synergies with the Instrument for Pre-Accession (IPA) budget support**

The EU and Serbia signed the Stabilization and Association Agreement (SAA) on the 29th of April 2008 and Serbia has been granted the candidate status by the European Council decision of the 1st March 2012. However the country has been benefiting from the IPA assistance since 2007 receiving around EUR 1.1 billion from 2007 to 2012. While IPA is generally a project-based funding, in 2009 and 2010 Serbia benefited from two IPA tranches in the form of the budget support. The Commission adopted on 28 July 2009 the Budget Support Programme for Serbia under the IPA – Transition Assistance and Institution Building Component for 2009. The IPA budget support for the total amount of EUR 100 million was awarded, in the form of grants, in two tranches, of EUR 50 million each, in December 2009 and in December 2010. The IPA budget support was accompanied by a set of policy conditions.

From the financial point of view, the two programmes – MFA and IPA – are clearly complementary rather than overlapping: IPA funds were disbursed in 2009 and 2010, while the MFA loan was made available to Serbia in 2011.

On the policy ground, the MFA could have had two types of interaction with the IPA budget support. The first type of interaction arises when the policy conditions of the two programmes differ, but are related to the same policy field (e.g. public financial management). In this case, MFA and IPA complement each other. The second type of interaction arises when some of the policy conditions related to the two instruments are identical or very close. In the case of overlapping the policy conditions could be either redundant or mutually reinforcing. Redundancy would lead to conclude that MFA conditionalities were superfluous, while mutually reinforcing character of the policy conditions from two programmes would have been a sign of complementarity.

The following table provides a list of policy conditions related to the MFA on the one hand and to IPA on the other hand:

Table 28 – MFA and IPA budget support policy conditions

Macro-Financial Assistance (MFA)	Instrument for Pre-Accession (IPA) Budget Support
<b>Cooperation with the IMF</b>	
Disbursing IMF programme	Disbursing IMF programme
<b>Budget System Law</b>	
<p><b>1<sup>st</sup> tranche.</b> Government approval of the Budget System laws, specifically establishment of Quantitative Fiscal Rules</p> <p><b>2<sup>nd</sup> tranche.</b> Approval of by-laws regulating extra-budgetary funds.</p>	<ul style="list-style-type: none"> <li>• Submission by the Government to the Parliament of the new Budget System Law</li> <li>• Publication in the Official Gazette of the new Budget System Law</li> <li>• Enactment of the Budget System Laws</li> <li>• To take first steps of regulation and harmonisation of the budget preparation in extra-budgetary funds with the standard budget process, in particular produce a list of extra-budgetary funds and budget appropriations of these funds</li> </ul>
<b>Public Internal Financial Control</b>	
<p><b>1<sup>st</sup> tranche.</b> Government approval of the Budget System laws, specifically provisions in the PIFC policy paper of November 2009:</p> <p><b>2<sup>nd</sup> tranche.</b> Recruitment of the Ministry of Finance Internal Auditor.</p> <p><b>2<sup>nd</sup> tranche.</b> Enactment of the revised Law on the State Audit Institution.</p> <p><b>2<sup>nd</sup> tranche.</b> State audit institution: production of a draft audit report on the 2009 financial statements for the Republic of Serbia launching the audit of three SOEs</p>	<ul style="list-style-type: none"> <li>• Adoption by the Government of a Public Internal Financial Control strategy paper</li> <li>• Establishment of a central harmonization unit for financial management and control and internal audit within the Ministry of Finance</li> <li>• Submission by the Government to the Parliament of the amendments to the law on the State Audit Institution in order to further align it to EU standards</li> <li>• Completion of the external audit of 2008 financial statements for the Republic of Serbia and submission to the National Assembly</li> </ul>
<b>Public Financial Management</b>	
<p><b>2<sup>nd</sup> tranche.</b> Adoption of public accounting standards in line with international standards.</p> <p><b>2<sup>nd</sup> tranche.</b> Circulation among stakeholder of the draft PEFA report with the aim of preparing a PFM roadmap</p> <p><b>2<sup>nd</sup> tranche.</b> Further integration of the Medium-Terms Expenditure Framework (MTEF) into the budget process, in particular introducing 3 year budget ceilings.</p> <p><b>2<sup>nd</sup> tranche.</b> First steps in the implementation of a new debt strategy, in particular issuance of Dinar-denominated T-bills with a maturity of at least 18 months.</p>	<ul style="list-style-type: none"> <li>• Adopt by-laws on public procurement in line with the EU 'acquis'</li> <li>• Launch a PEFA update with the aim of preparing a PFM roadmap</li> </ul>

#### European Integration

**2<sup>nd</sup> tranche.** Maintain and develop administrative capacity in the MoF in order to deal with the EU integration issues, such as decentralised implementation system (DIS) and state aid control.

- Exclusion of personnel working with priority areas of EU integration from the recruitment restrictions introduced in March 2009, in accordance with the Human Resources Plan of the Government of Serbia for 2009.
- Adopt the Law on Protection of Competition and start implementing it, by adopting at least 4 out of the 10 foreseen by-laws. Increase the number of qualified staff in the Commission for protection of Competition to at least 75% of the planned total number of employees foreseen in 2009 in the NPI.
- Adopt the Law on State Aid Control and start implementing it by adopting the by-law and establishing the appropriate operationally independent state aid control body as stipulated in the law. Increase the number of qualified staff working with state aid control in the Serbian administration at least 50% of the planned total number of employees foreseen in 2009 in the NPI.
- Produce an action plan for gap plugging for IPA components I and II, taking into consideration the recommendation of the final Gap Assessment Report; hire or allocate the required full-time staff in the involved structures; complete stage 0 and launch stage 1 of the Decentralised Implementation System for IPA components III and IV.

**Source:** MFA Memorandum of Understanding, IPA Memorandum of Understanding

One major policy condition pertaining to the two tranches of the MFA and to the IPA is the compliance with the Stand-By Arrangement (SBA) concluded with the IMF. This compliance pre-condition is complementary rather than redundant across the two instruments. Both IPA and MFA seek to ensure IMF policy conditions implementation, thus inclusion of the disbursing IMF programme as a precondition for disbursement of IPA and MFA funds provide EU political backing to the former and thus increase probability of its implementation.

Concerning the Budget System Law, IPA and MFA policy conditions are largely complementary. MFA is the only programme containing the condition of the introduction of quantitative fiscal rules. Thus, the quantitative fiscal rules condition is a clear added value from MFA compared to IPA. Both programmes address the issue of extra-budgetary funds, but IPA requests to produce a list of extra-budgetary funds and budget appropriations of these funds, while the MFA (2<sup>nd</sup> tranche) takes the issue to the next stage by requesting the approval of by-laws regulating these funds.

With respect to the Public Internal Financial Control a major overlapping policy condition concerns the adoption of the recommendations from the Public Internal Financial Control strategy paper, a policy condition included in both programmes. According to the Delphi analysis output, Public Internal Financial Control policy conditions are those where the MFA indeed made a difference in a sense that the MFA was pointed out by the Delphi participants as the main driver of their implementation. The Memorandum of Understanding for MFA was designed during the disbursement of the IPA tranches. Thus, inclusion of these policy conditions witnessed of the importance attached to them by the European Commission, therefore the overlap of MFA and IPA on these topics is mutually strengthening rather than redundant.

The analysis of policy conditions related to public financial management and European integration has to take into account the fact that for MFA these policy conditions were attached to the second tranche which was ultimately never disbursed. However, the examination of the two programmes shows that the policy conditions in these areas are largely complementary. The only overlap concerns the preservation of the administrative staff dealing with the European integration issues: in the context of the downsizing of the public sector employment both programmes sought to ensure that the personnel who have competence and experience in the EU integration-related areas would not be subject to these layoffs. Preservation of the staff highly experienced in EU-related matters is instrumental to the quality of the EU-Serbia dialogue and insistence of both programmes on this subject is clearly complementary since IPA pertains to 2009, while MFA extends this policy condition to 2010 and 2011.

### **Synergies with IMF and World Bank programmes**

The interactions of the MFA with the IMF and the World Bank programme have two components: the financial component and the policy component.

### **Financial component**

The financial component refers to the complementary/substitutable nature of the MFA funding with respect to the IMF/WB funding. The volumes of financial assistance to Serbia were calculated based on the IMF forecasts of the country's anticipated external financing needs and the breakdown of financial assistance across the EU, the IMF and the WB was agreed beforehand. In the case where the IMF and/or the World Bank would have simply stepped in to provide larger loans in case the MFA had not been awarded, the MFA loan and the IMF/WB loans would be substitutable. Thus, the added value of the MFA with respect to the IMF and the WB financial assistance would be purely mathematical: a loan from the EU allows smaller loans from the international financial institutions.

If the IMF and the WB would not have provided larger loans in absence of the MFA, the Serbian government would have had to search for other alternatives to cover a share of its financing needs through other sources, possibly at tougher financial conditions. In this case, the MFA would present real added value and exhibit complementarity with regard to the financial assistance from the international financial institutions.

The Delphi analysis indicates that an increase in the size of financial assistance from the international financial institutions in the event of no-MFA would be possible, but unlikely.

### **Policy component**

The policy component refers to the policy conditions included in the Memorandum of Understanding of the MFA on the one hand and in the agreements concluded between the Serbian government and the international financial institutions (IMF and the World Bank on the other hand).

According to the stakeholders interviewed, the MFA contributed positively to the implementation of the International Monetary Fund policy conditions. The prevailing opinion in 2008-2009 was that the crisis that had hit Serbia would be short-lived and Serbian economy would quickly revert to its state before the crisis. Thus the impact of the IMF opinion was reduced at this period compared to the current situation. The bundling of the Macro-Financial Assistance into the financial assistance package and the explicit pre-condition introduced in the MFA MoU of the IMF programme being on track allowed for faster and smoother implementation of the latter.

The two MFA policy conditions do not overlap with the IMF and the World Bank conditions, thus the former and the latter are complementary: they address different issues in the same fields of structural reforms.

### **MFA volume, structure and timing of disbursement**

This subsection analyses the impact of the MFA characteristics on its efficiency. We examine the main features of the MFA design and implementation: the volume, the interest rate, the maturity, the timing of the disbursement of funds, specific provisions attached.

### **MFA volume**

The volume of the MFA was determined based on Serbia's external financing needs assessment by the International Monetary Fund and calibrated accordingly by the European Commission. The key difference with the IMF financial assistance is that the MFA funds are transferred to the budget, while the IMF funds constitute a support of the foreign currency reserves of the National Bank of Serbia.

The respondents to the Delphi questionnaire evoked higher volume of the loan as one of the improvement areas: this would allow substituting cheaper MFA debt to more expensive debt borrowed on the markets. However, the MFA is designed to address the financing needs of a country in economic distress and not to provide cheaper funding on a permanent basis. With Serbian financial situation improving in 2011, larger MFA loan volume would simply produce a windfall effect. By late 2011 Serbia sovereign debt emissions on the markets were successful and a portion of the proceeds was even left unused in the ongoing budget execution process. This reinforces the windfall effect argument of a larger MFA loan volume.

Thus, the volume of the MFA loan was fully adequate given the ex ante forecasts and the ex post needs of the Serbian economy.

### **MFA structure**

The interest paid on the MFA loan was established at 3.382% per annum with an average maturity of seven years.

According to the European Commission representatives involved in the design of the MFA the interest rate was computed based on the LIBOR + the margin covering the transaction costs of the funds management. The maturity has no formal legal basis, but follows the principle that the recipient country has to be provided with a loan of reasonable long term maturity of around 8-10 years.

The MFA borrowing terms were suitable since it allowed Serbia to benefit from an interest differential (quantitative assessment of the impact of the interest differential on the Serbian public debt is given in the previous chapter), while covering the borrowing costs associated with the MFA lending of the EU. The interest rate on the MFA loan was considerably lower than interest rates on Serbian government securities emitted in 2011 (5.18 on average). In addition, the MFA loan was provided on an average maturity longer than the average maturity of the Serbian public debt that year.

### **Timing of MFA funds disbursement**

The Decision 2009/892/EC deemed important that "the Community macro-financial assistance to Serbia is disbursed before the end of 2010" given the country's financing needs for 2010, the Memorandum of Understanding was signed in July 2010, while the funds were effectively disbursed only in July 2011. Regarding timing of the Macro-Financial Assistance funds disbursement, the general feedback from the structured interviews was that funds should have come earlier.

Indeed, the major needs for financial assistance situated in late 2008-2009 when the Serbian economy underwent a fall in its capital account volume requiring a major external rebalancing. At this moment the risks of a full-fledged balance of payments crisis followed by a fiscal crisis due to unsustainable growth of the external debt burden were the highest (even if they ultimately failed to materialize) which motivated the IMF precautionary SBA, augmented to Exceptional Access SBA in March 2009. By 2011, the external imbalances were largely reduced – tensions and risks were far below their 2009 level.

The length of the negotiation on the first tranche was evoked as one of the reasons why the second tranche was not requested (the two other being the lack of financing needs and non-disbursing IMF programme).

## **Conclusions and recommendations for future MFA operations**

This chapter summarizes the main findings of our evaluation of the MFA to Serbia and draws recommendations for the Macro-Financial Assistance operations.

### **Main findings**

The MFA comprised two components: the financial component with the EUR 100 loan and the policy component with the two policy conditions underpinning the disbursement of the loan. Below we review the key findings for each of them.

#### ***Financial component of the MFA***

From the macro-financial perspective, and even though only one tranche was ultimately disbursed, the MFA loan had a positive impact on the Serbian economy, as well as on the Serbian public finance sustainability.

As part of the international financial assistance framework, the MFA funding was definitely relevant to the needs of the Serbian economy. MFA funds ensured 45% of the coverage of the external financial needs of Serbia, as computed by the IMF, for 2011 and 5% for the period 2009-2011. According to the interviews with relevant stakeholders, MFA financial contribution was probably even more needed in 2011 than in 2009, at the height of the crisis. Nevertheless, according to the stakeholders interviewed, efficiency of the MFA could have been higher had the funds been disbursed faster. By contrast, the interest rate and the maturity of the MFA loan are fully appropriate.

Along with the IMF and the World Bank contribution, the MFA helped the Serbian economy to escape a full-fledged debt crisis and pull out of the recession for in 2010-2011, even though the macroeconomic condition of Serbia worsened in 2012. Thus, the MFA – along with other international financial institutions assistance – were effective in limiting the macroeconomic damage and reducing the danger of a major crisis.

The impact of the MFA funds on the macroeconomic aggregates is very limited but positive: without the MFA the Serbian GDP would be between 0 to 0.05% lower. Albeit the quantitative assessment of the impact of the MFA is problematic, the absence of the MFA would have left the country worse off in terms of revenue, consumption and investment. The absence of the MFA would also lead to a slight Dinar depreciation with respect to the main currencies. In addition, without the MFA the Serbian government would be most likely led to borrow on the private markets at a higher interest rate. This, in hand with the abovementioned Dinar depreciation, would lead to a slightly higher debt burden for the Serbian economy (although this additional cost is very limited). Even if the Serbian external financial sustainability and public debt sustainability are scarcely affected by the MFA due to the limited size of the latter, the EU involvement contributed to stabilising the expectations of the private agents about the Serbian economy.

### **Policy component**

The two policy conditions related to the first tranche of the MFA were negotiated and agreed upon with the Serbian stakeholders, and both policy conditions were clearly adequate to the needs of the Serbian economy.

The two policy conditions were formally fulfilled with on the one hand the adoption by the Serbian Parliament of the Law on amendments and addenda to the Budget System Law which introduced a set of quantitative fiscal rules and transposed into legislations a set of measures related to the Public Internal Financial Control from the policy paper approved in November 2009.

The involvement of the EU through the MFA was instrumental in pushing for implementation of the measures described in the policy conditions. According to the persons interviewed and to the participants of the Delphi, the MFA was one of the major drivers – along with the IPA – of giving a legal ground to measures related to the Public Internal Financial Control. Concerning Government and Parliament approval of the PIFC-related legislation, the cooperation between the European Commission and the Serbian government ensured an ownership of the PIFC measures, yet without the MFA the implementation of these legal acts would probably have been made at a slower pace or even postponed. The PIFC measures are part of a structural improvement of the Serbian public financial management and are expected to contribute to gradually align the Serbian administrative capacities to the EU standards in the field. By contrast, the efficiency and the impact of the fiscal rules for the Serbian economy were limited by the fact that the targets fixed were breached in 2011 and in 2012.

In addition, MFA provided a strong political backing for the implementation of the structural reforms at large within the Serbian economy, in particular of the structural reforms agreed between the Serbian authorities and the IMF.



## Recommendations for future MFA operations

In this section we provide a set of recommendations for improving the MFA instrument for further operations. Even though these recommendations are based on the specific findings from the MFA support operations to Serbia, they can be generalized to other potential recipient countries. Our recommendations also take into account the Joint Declaration by the European Parliament and the Council adopted on the 14<sup>th</sup> of August 2013 and outlining the considerations and the principles underpinning Macro-Financial Assistance.

### ***Better time-targeting of the financial assistance: "disburse faster, terminate earlier"***

Macro-Financial Assistance is provided to countries facing serious external financing difficulties in the short run – which could potentially mean months – in order to alleviate short-term balance of payment problems. Thus, delays in disbursement imply a possibility for the recipient country to fall short of the funds which are needed urgently and to face the very balance of payment crisis that MFA had sought to prevent. Therefore a faster disbursement would make the MFA more efficient in terms of macroeconomic stabilisation. This would have been particularly relevant in the Serbian case, judging by the feedback from the Serbian stakeholders, as the main financing needs arose in 2009, while the MFA loan first tranche was disbursed only in July 2011.

The case for faster disbursement is also strengthened by the considerations related to the existence of potential windfall effects: provide cheaper financing to countries which do not need it anymore. If the financial assistance is provided when the country had already pulled out of the balance of payment crisis, either through an improvement of the general macroeconomic context or – as in the Serbian case – through acquired access to new financing sources, then the added value of the assistance would be nil from the macro-financial point of view. MFA would in particular clearly diverge from its objective of alleviating short-term balance of payment difficulties. In addition, late disbursement of cheaper funds in absence of clear financing needs could produce inadequate incentives as regards structural reforms and adjustment measures: the opposite of the MFA objective. Thus, in addition to faster disbursement of MFA funds we recommend discontinuation of the MFA disbursement if the country's external financial situation does not require it any more, i.e. if the no clear balance of payments problem henceforth exist. This consideration is in line with the Joint Declaration which states that "Macro-Financial Assistance (...) should be discontinued as soon as the external financing situation has been brought back to a sustainable situation". In case of Serbia this was partly and unintentionally fulfilled as the second tranche of MFA was not disbursed.

Thus, overall, MFA financial component efficiency would be maximized if the loan is both disbursed faster and discontinued in the event of sufficiently improved external financial conditions of the recipient country.

### **MFA Policy conditions: focus on “quick wins”, follow-up on their implementation**

As far as the structuring of the policy conditions is concerned, the corollary of this disbursement strategy would be to focus on “quick wins” – straightforward and immediately implementable measures – for the first tranche of the MFA loan so as to enable the recipient country to fulfil the MoU policy conditions quickly enough to benefit from the financial assistance when it is needed. Typical examples of quick wins would be legislative measures which can be adopted under short notice. An example related to this specific MFA is Serbian Parliament’s adoption of measures related to the introduction of quantitative fiscal rules and adoption of the PIFC policy paper measures.

Another recommendation related to the policy conditions would be to monitor the effective implementation of the measures introduced to comply with the latter. Indeed, MFA policy conditions are useful only to the extent that the legislative measures related to these conditions are effectively translated into policies afterwards. One example from the current evaluation is the introduction by Serbia of the Fiscal Deficit Rule, the 45% debt-to-GDP cap and the set of indexations rules for pensions and salaries of the public sector employees. Although effectively passed into the Budget System Law, these quantitative fiscal rules were made ineffective by the divergence of the fiscal policies from the objectives fixed by these rules. Thus, one improvement to be considered for upcoming MFA operations is to introduce an obligation for the recipient country to align its policies with the legal acts introduced in line with the MFA policy conditions. Thus, the fulfilment of the policy conditions would require the adoption of subsequent legislation as a pre-requisite for disbursement of a tranche and public policies complying with the legislation afterwards as a prerequisite for disbursement of further tranches.

According to the Joint Declaration, the MFA “*should underpin the implementation of a policy programme that contains strong adjustment and structural reforms measures designed to improve the balance of payment position*” of the recipient country. In addition, the success of the MFA in restoring the recipient country’s external financial sustainability relies on the implementation by the latter of the measures related to structural adjustment in order to make its external financial position viable in the long term (while the MFA loan helps to sustain it in the short term). If the recipient country does not need to implement measures related to the structural adjustment – such as the fiscal rules aiming at stabilising the fiscal deficit and debt-to-GDP ratio – this would mean financial assistance is superfluous, which would make a case for discontinuation of the latter.

## **Appendix A – Our approach to the Delphi interviews**

### **The Delphi method for interviews**

The Delphi method is an effective and reliable data collection method that is particularly useful when there are indirect effects that are to be evaluated or there is uncertainty surrounding the area being investigated (Dalkey & Helmer, 1963<sup>28</sup>). It was originally developed by the RAND Corporation in the 1950s and applied to assess the direction of long range trends, with emphasis on science and technology and their effects on society; to forecast likely inventions, new technologies and the social and economic impact of technological change.

Delphi method is defined as "a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole to deal with a complex problem." (Linstone & Turoff, 1975<sup>29</sup>). The main aim is to reach an agreed view or shared interpretation of an emerging topic area or subject for which there is contradiction or indeed controversy.

Rowe and Wright (1999<sup>30</sup>) characterize the classical Delphi method by four key features:

1. Anonymity of Delphi participants: allows the participants to freely express their opinions without undue social pressures to conform from others in the group. Decisions are evaluated on their merit, rather than who has proposed the idea;
2. Iteration: allows the participants to refine their views in light of the progress of the group's work from round to round;
3. Controlled feedback: informs the participants of the other participant's perspectives, and provides the opportunity for Delphi participants to clarify or change their views;
4. Statistical aggregation of group response: allows for a quantitative analysis and interpretation of data.

### **Recommended Characteristics**

From literature review, particularly the paper by Day & Bobeva (2005)<sup>31</sup>, we see that the Delphi study has a number of key characteristics that need to be defined and there are standard guidelines for what is considered acceptable in terms of these characteristics.

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<sup>28</sup> Dalkey D. & Helmer O. (1963) An experimental application of the Delphi method to the use of experts. *Management Science* 9, 83–90.

<sup>29</sup> Linstone, H.A. and Turoff, M. (eds.) (1975) *The Delphi Method Techniques and Applications*. Massachusetts, Reading: Addison-Wesley.

<sup>30</sup> Rowe, G. & Wright, G. (1999). The Delphi technique as a forecasting tool: Issues and analysis. *International Journal of Forecasting*, 15(4), 353 – 375.

<sup>31</sup> Day J and Bobeva M (2005) "A Generic Toolkit for the Successful Management of Delphi Studies" *The Electronic Journal of Business Research Methodology* Volume 3 Issue 2, pp 103-116.

Characteristic	Recommendations
Number of Rounds	Varying between two and ten (Lang, 1994 <sup>32</sup> ; Errfmeyer et al, 1986 <sup>33</sup> ) but most commonly restricted to two or three rounds.
Participant characteristics	Homogeneous or heterogeneous groups. The profile of the participants could be defined any number of characteristics that tie the different participants together. Of particular importance to potential users of Delphi is establishing the expertise of the participant (Gordon, 1994 <sup>34</sup> ) that affects the quality of the outcomes.
Mode of operations	Face-to-face interview with individual participants or electronically administered questionnaires.
Anonymity or panel	Either keeping all the participants unaware of the other members, which then helps influence their opinion or having a full panel discussion with all the members aware of each other's identities. This is a key element of the Delphi study.
Number of participants	Ziglio (1996 <sup>35</sup> ) asserts that useful results can be obtained from small size, <i>homogeneous groups</i> of 10-15 experts. However Dalkey, as cited in Linstone (1978, p.296 <sup>36</sup> ), found that seven is a suitable minimum panel size.

### **Our Approach**

There are various types of Delphi studies that can be carried out. For our purpose we choose the Classical Delphi approach, which is essentially a forum for establishing facts. It is a type of Delphi data are collected from the participants in a series of rounds and the results are fed back to the participants until stability in responses among the participants has been achieved.

The basic rule is that a Delphi survey stops once a range of answers to all the questions is narrowed enough by iterative survey process. This narrowing is allowed by gradual expansion of common knowledge - first within groups, then at the inter-group level.

Our proposed characteristics for the Delphi, based on the parameters identified above are provided here:

<sup>32</sup> Lang, T. (1994), An overview of four future methodologies, *The Manoa Journal of Fried and Half-fired ideas (about the future)*.

<sup>33</sup> Errfmeyer, R.C., Errfmeyer, E., & Lane, I. (1986), *The Delphi Technique: An Empirical Evaluation of the Optimal Number of Rounds*. *Group & Organisation Studies*, v.1:1-2 (March-June), pp.120-128.

<sup>34</sup> Gordon, T.J. (1994) *The Delphi Method in Futures Research Methodology*, AC/UNU Project.

<sup>35</sup> Ziglio, E. (1996), *The Delphi Method and its Contribution to Decision-Making*. in: Alder M. and Ziglio, E. (Eds.), *Gazing into the Oracle, The Delphi Method and Its Application to Social Policy and Public Health*. London: Jessica Kingsley Publishers, 3-33.

<sup>36</sup> Linstone, H.L.(1978), *The Delphi Technique*. In: J. Fowles, Ed. *Handbook of Futures Research*. London: Greenwood Place.

<b>Characteristic</b>	<b>Recommendations</b>
Number of Rounds	<p>Given the nature of the questionnaire and the need to develop our hypothesis over the period, we conducted two sequential rounds. The critical element in this approach is to always ensure that the attrition rate is kept to a level which meets the minimum participant criteria. Our Delphi analysis was successful in this respect.</p>
Participant characteristics	<p>We proposed an expert group of homogenous participants – all with common ties to an expert level understanding of the Serbian economy in general and of the macro financial impact in particular. We also identified participants who have specific knowledge to both the MFA operations as well as the IMF interventions.</p>
Mode of operations	<p>Although electronically administered questionnaires were preferred, given the ease of filling them in and responding, we proposed to use offline version – MS Word documents which could be filled in electronically – rather than web based questionnaire.</p> <p>This approach further allowed us to follow up with individual participants to ensure their commitment to the process and create a follow up process.</p>
Anonymity or panel	<p>We keep the participants anonymous, using only group characteristics to identify them in subsequent rounds. For example, we could have spoken to a participant and state that “the respondents from the Central Bank thought this, would you like to change your opinion?”</p>

<b>Characteristic</b>	<b>Recommendations</b>
Number of participants	<p>Because we worked with a homogenous group of participants, all of who are knowledgeable about the macro economy of Serbia, we had proposed the following threshold for the participants:</p> <ul style="list-style-type: none"><li>• Target number of participants: 15;</li><li>• Acceptable number of participants: 10;</li><li>• Critical threshold (below which the Delphi will be declared unsuccessful): 7.</li></ul>

The first round of Delphi consisted of sending the survey with questions bearing on the Serbia macroeconomic situation and the effect of structural reforms in the MFA operations to each participant.

After the responses are received from participants of a group, the results are made known to all participants from this group. Therefore, at the start of the second round, participants of a group knew what the other participants from their group responded. Each participant was offered the whole range of answers that emerged from the first round.

In the second round, the participants received the same set of questions, but now they had prior knowledge of the answers from the other participants of the group. Therefore, they could adjust their own answer. Once the round was over, we performed a summary of the replies. The survey ends upon complete elimination of smoothing of conflicting views and narrowing the range of responses across the three groups until they summarize into a consistent view of the MFA macroeconomic and structural impact.

The questionnaire is presented in the following pages. The questionnaire includes the responses collected over the two phases of the Delphi analysis.

**Delphi Questionnaire and the results of the Delphi analysis**

The questionnaire below includes the answers obtained through the two phases of the Delphi analysis. For each question we present the percentage of respondents that selected each of the options available for each question.

1. How do you compare the current macroeconomic situation in Serbia, as compared to mid-2010?

<b>Worse</b>	<b>Much the Same</b>	<b>A little Better</b>	<b>Much Better</b>	<b>Do not know</b>
30%	10%	60%	0%	0%

**How to read this table:** after two rounds of the Delphi, 30% of the participants concluded that the current macroeconomic situation in Serbia is worse compared to mid-2010, 10% think it is much the same, 60% consider the situation a little better. None consider it much better.

2. In your judgement, what was the likelihood of a macroeconomic crisis in Serbia in the following years?

	<b>Very small chance of happening</b>	<b>Unlikely to have happened</b>	<b>Could have happened</b>	<b>Surely would have happened</b>	<b>Do not know</b>
2009	10%	10%	60%	20%	
2010		50%	40%	10%	
2011		30%	50%	20%	
2012		20%	50%	30%	

3. How do you assess the contribution of the European Union's Macro-financial Assistance (MFA) towards the macroeconomic stabilisation of Serbia, when compared to the contributions from the IMF and the World Bank?

<b>Made things worse</b>	<b>No contribution</b>	<b>Minor contribution</b>	<b>A major contribution</b>	<b>Do not know</b>
	10%	90%		



4. How do you perceive the Macro-financial Assistance from the European Union, where do you think it had the most impact?

	Necessary	Useful	Unnecessary
The MFA was ...	20%	80%	
Its impact on	Major	Somewhat	No impact
Budget Support was ...		80%	20%
assisting in structural reforms was ...	11%	67%	22%
addressing the Balance of Payment deficit was ...		50%	50%

5. How could the MFA have been more effective? (choose all that applies)

Strongly Agree	Agree	Not relevant	
56%	44%		The amount should have been bigger than the approved €200 million
11%	89%		The grant component should have been larger
56%	44%		It should have had <b>more</b> structural reforms conditions
		100%	It should have had <b>less</b> structural reforms conditions
33.3%	33.3%	33.3%	The funds were needed earlier

6. In your opinion, if the Macro-financial Assistance (MFA) was not granted, what could have happened?

	Very Likely	Possibly	Unlikely	Very Unlikely	Do not know
<b>IMF would have ...</b>					
- approved larger Stand by Arrangements (SBA)	0%	10%	50%	40%	
- given stricter structural requirement	0%	30%	40%	30%	
- given easier structural requirement	0%	0%	22%	78%	
<b>World Bank would have ...</b>					
- approved larger loans	0%	40%	30%	30%	
- given stricter structural requirement	11%	22%	22%	44%	
- given easier structural requirement	0%	0%	11%	89%	
- shifted from project loans to macro-assistance loans	0%	50%	13%	38%	
<b>Other donors would have</b>					
- increased their program size	0%	0%	70%	30%	
- increased debt cancellation	0%	0%	56%	44%	
- switched Technical Assistance funds to macro-assistance components	0%	33%	33%	33%	

7. If EUR 100 million from the MFA was not disbursed in July 2011, what, in your opinion, were the probabilities of the following actions by the Serbian government:

<b>Serbian Government would have ...</b>	<b>Certainly</b>	<b>Very Likely</b>	<b>Most probably</b>	<b>Possibly</b>	<b>Unlikely</b>	<b>Very Unlikely</b>	<b>Certainly not</b>
Probability	1	0.9	0.75	0.5	0.25	0.10	0
- increased VAT	0%	0%	0%	30%	10%	20%	40%
- decreased public expenditure	0%	0%	0%	10%	30%	30%	30%
- borrowed more from the Domestic banks	10%	30%	30%	20%	10%	0%	0%
- borrowed more abroad (from the banks or through sovereign debt emission)	0%	30%	20%	40%	0%	0%	10%

8. How do you assess the progress of the structural reform in the following areas, as compared to mid-2010?

	<b>Major Improvement</b>	<b>Slight Improvement</b>	<b>No Improvement</b>	<b>Worse</b>	<b>Do not know</b>
Fiscal deficit	0%	40%	10%	50%	
Public debt	10%	10%	20%	60%	
Public Internal Financial Control (PIFC) strategy	17%	50%	33%	0%	
Functioning of the Central Harmonisation Unit (CHU) of the Ministry of Finance and Economy	20%	40%	40%	0%	
Establishing decentralised internal audit units in direct beneficiaries of the republic budget	17%	83%	0%	0%	
Certification scheme for "certified public sector internal auditor"	25%	50%	25%	0%	
Publishing the Financial Management and Controls (FMC) handbook	0%	75%	25%	0%	
Training of managers of the FMC	20%	80%	0%	0%	
Familiarisation training of managers in the public sector with PIFC systems	40%	60%	0%	0%	
Adopting an inspection law	25%	50%	25%	0%	
Public expenditure management	20%	60%	20%	0%	
Treasury management	20%	70%	10%	0%	
Tax revenue collection	0%	50%	50%	0%	
General public administration	0%	60%	40%	0%	

## 9. What contribution, if any, did the EU's MFA have on reforms in the following areas?

	<b>Put the issue on top of the policy agenda</b>	<b>Speeded up reforms</b>	<b>Helped influence the reform agenda</b>	<b>The MFA had no effect in this sector</b>	<b>Do not know</b>
Fiscal deficit	0%	0%	50%	50%	
Public debt	0%	0%	38%	63%	
Public Internal Financial Control (PIFC) strategy	0%	25%	75%	0%	
Functioning of the Central Harmonisation Unit (CHU) of the Ministry of Finance and Economy	0%	0%	100%	0%	
Establishing decentralised internal audit units in direct beneficiaries of the republic budget	0%	0%	100%	0%	
Certification scheme for "certified public sector internal auditor"	0%	0%	75%	25%	
Publishing the Financial Management and Controls (FMC) handbook	0%	0%	75%	25%	
Training of managers of the FMC	0%	0%	75%	25%	
Familiarisation training of managers in the public sector with PIFC systems	0%	0%	75%	25%	
Adopting an inspection law	0%	33%	0%	67%	
Public expenditure management	0%	0%	80%	20%	
Treasury management	0%	0%	80%	20%	
Tax revenue collection	0%	0%	60%	40%	
General public administration	0%	0%	40%	60%	

10. At the time these reforms were proposed, how important do you think they were to the national agenda?

	<b>Extremely important</b>	<b>These were relevant issues</b>	<b>Not relevant at all</b>	<b>Not Important at all</b>	<b>Do not know</b>
Fiscal deficit	40%	60%	0%	0%	
Public debt	30%	70%	0%	0%	
Public Internal Financial Control (PIFC) strategy	25%	63%	13%	0%	
Functioning of the Central Harmonisation Unit (CHU) of the Ministry of Finance and Economy	0%	88%	0%	13%	
Establishing decentralised internal audit units in direct beneficiaries of the republic budget	11%	78%	0%	11%	
Certification scheme for "certified public sector internal auditor"	0%	86%	0%	14%	
Publishing the Financial Management and Controls (FMC) handbook	0%	86%	14%	0%	
Training of managers of the FMC	0%	86%	14%	0%	
Familiarisation training of managers in the public sector with PIFC systems	0%	86%	14%	0%	
Adopting an inspection law	25%	63%	13%	0%	
Public expenditure management	40%	50%	10%	0%	
Treasury management	40%	50%	10%	0%	
Tax revenue collection	56%	44%	0%	0%	
General public administration	20%	80%	0%	0%	

11. How would you rate the relative importance of these elements in bringing about the reforms?  
(after assigning a proportional score, please ensure the total adds up to 100%)

	<b>Serbian Government's Commitment</b>	<b>MFA Conditionality</b>	<b>IMF Conditionality</b>	<b>World Bank Conditionality</b>	<b>Total</b>
Fiscal deficit	34%	6%	49%	12%	100%
Public debt	34%	4%	44%	17%	100%
Public Internal Financial Control (PIFC) strategy	34%	33%	21%	12%	100%
Functioning of the Central Harmonisation Unit (CHU) of the Ministry of Finance and Economy	44%	30%	15%	11%	100%
Establishing decentralised internal audit units in direct beneficiaries of the republic budget	45%	34%	15%	6%	100%
Certification scheme for "certified public sector internal auditor"	49%	37%	9%	5%	100%
Publishing the Financial Management and Controls (FMC) handbook	45%	41%	9%	5%	100%
Training of managers of the FMC	52%	34%	9%	5%	100%
Familiarisation training of managers in the public sector with PIFC systems	52%	34%	9%	5%	100%
Adopting an inspection law	52%	28%	16%	4%	100%
Public expenditure management	44%	8%	37%	11%	100%
Treasury management	48%	14%	29%	9%	100%
Tax revenue collection	45%	8%	38%	10%	100%
General public administration	48%	22%	20%	10%	100%

## 12. Had the MFA operations not taken place, what do you think would have happened to the following reforms areas?

	<b>Would have been done by the Serbian government's reforms agenda</b>	<b>The conditions would have been added to the IMF SBA</b>	<b>The conditions would have been added to the World Bank loans</b>	<b>No reforms would have taken place in this sector without the MFA</b>	<b>Do not know</b>
Fiscal deficit	31%	54%	15%	0%	
Public debt	33%	58%	8%	0%	
Public Internal Financial Control (PIFC) strategy	40%	40%	0%	20%	
Functioning of the Central Harmonisation Unit (CHU) of the Ministry of Finance and Economy	75%	0%	0%	25%	
Establishing decentralised internal audit units in direct beneficiaries of the republic budget	80%	20%	0%	0%	
Certification scheme for "certified public sector internal auditor"	75%	0%	0%	25%	
Publishing the Financial Management and Controls (FMC) handbook	50%	25%	0%	25%	
Training of managers of the FMC	100%	0%	0%	0%	
Familiarisation training of managers in the public sector with PIFC systems	75%	0%	0%	25%	
Adopting an inspection law	75%	25%	0%	0%	
Public expenditure management	44%	44%	11%	0%	
Treasury management	44%	44%	11%	0%	
Tax revenue collection	63%	38%	0%	0%	
General public administration	60%	20%	0%	20%	



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Respondent Information (please leave blank if you do not wish to fill this in).

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**This questionnaire has been filled by:**

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Name

Title

Institution

Date

## **Appendix B – Questionnaire for structured interviews**

The guide is divided into two parts: the first related to the macroeconomic evolution of Serbia (and the effects of MFA funds on the latter), the second – to structural reforms (and the effects of MFA conditionalities on it).

Some questions are common to all the stakeholders, while part of the questions is targeted at one or more specific categories of stakeholders.

### **Macroeconomic stabilisation**

As specified in the Memorandum of Understanding, MFA funds were disbursed to the National Bank of Serbia (NBS), acting as an agent of the Borrower (the Republic of Serbia). These funds were recorded on the balance sheet of the NBS under the line "foreign currency reserves and cash holdings".

### **Relevance**

<b>Questions</b>	<b>Target groups</b>
Are you aware of the Macro-Financial Assistance support operations (specifically within the international financial assistance to Serbia in 2009-2011)?	NBS Ministry of Finance Fiscal council
How do you evaluate the risk of a capital crisis occurring in Serbia in 2009 without the financial assistance from the IMF and the MFA (including the signalling effects)?	NBS Ministry of Finance IMF, WB
What were the main targets and the main features of the Serbian economic policies (monetary, fiscal) over the period 2009-2012?	NBS Ministry of Finance
How (through which channels) would you expect the MFA funds (EUR 100 million) to impact the Serbian economy?	NBS Ministry of Finance
What qualitative macroeconomic results did you expect the MFA to achieve?	DG ECFIN
To what extent has your institution been involved in the management of MFA funds?	NBS Treasury

### Effectiveness

Questions	Target groups
As of your knowledge, when were the MFA funds Dinar equivalent transferred to the Treasury?	NBS
As of your knowledge, when the MFA funds were effectively integrated into the budget execution process (started being used for disbursement purposes)?	Treasury
Only the first instalment was requested and disbursed before the programme expired in 2012. Serbian authorities did not request the 2 <sup>nd</sup> instalment. Why did not Serbia request the 2 <sup>nd</sup> instalment (given that the interest rate on the MFA loans is considerably lower than yields on the Serbian debt sold on the markets after the MFA)?	Ministry of Finance Fiscal council Office of Prime Minister
What are the main perceived constraints of the MFA? (In terms of policy conditions? In terms of supervision?)	Ministry of Finance Fiscal council Office of Prime Minister

### Efficiency

Questions	Target groups
Did you see any impact of the Macro-Financial Assistance (at the moment it was announced in November 2009 or at the moment when it was signed in July 2010 or at the moment it was disbursed in July 2011) on the private agents' confidence as measured by: <ul style="list-style-type: none"> <li>▪ Yields at which Serbian debt is sold on the auctions</li> <li>▪ Volume of households deposits held in Serbian banks</li> <li>▪ Exchange rate evolution</li> <li>▪ Credit Default Swaps on the Serbian debts</li> <li>▪ Other indicators (which ones)</li> </ul>	NBS Treasury Ministry of Finance
How well fitted was the timing of disbursement of MFA funds?	NBS Ministry of Finance
In 2011, Serbia's external financing gap was evaluated by the IMF at EUR 220 million. What would have been the alternative for coverage of the financing needs in absence of the MFA (in absence of the MFA and IMF loans)?	Ministry of Finance
Regarding the restrictive fiscal policy, how much did you expect the fiscal deficit to be reduced when the expenditures are reduced by 1 percent? (i.e. what size of the fiscal multiplier had been planned by the Ministry of Finance when the restrictive fiscal policy was put in place?)	Ministry of Finance

## **Sustainability**

<b>Questions</b>	<b>Target groups</b>
What additional macroeconomic policy measures do you deem necessary in order to achieve full-fledged fiscal sustainability for Serbia?	Ministry of Finance IMF NBS
Given the alternative ways of financing that would have been used without the MFA, what would be the contribution of the MFA funds to put Serbia on a sustainable fiscal and external financial trajectory?	Ministry of Finance Fiscal council NBS
How important are the one-off wage bonuses in the remuneration of the public employees?	Ministry of Finance
What are the tools of multiyear budgeting of capital and current expenditures in Serbia?	Ministry of Finance
Could you please list the risks and their corresponding likelihood of occurrence that would threaten Serbia's external financial sustainability?	Statistical Office Ministry of Finance Fiscal council NBS WB, IMF

## **Impact**

<b>Questions</b>	<b>Target groups</b>
What could have been changed in the MFA structure (maturity, volume, disbursement schedule) that would have improved on its impact for Serbia (in terms of macroeconomic stabilisation and medium-long term sustainability)?	Ministry of Finance Fiscal council

### Structural reforms

The two policy conditions specified in the Memorandum of Understanding (MoU) for the Macro-Financial Assistance (MFA) were:

- an introduction of the quantitative fiscal rules into the Budget Law, and
- amendments in the field of Public Internal Financial Control aligning Serbian legislation in the areas of accounting, public debt management, internal and external audit to the European law.

Thus, our questions bear mainly on these two policy conditions. We assess their relevance to the needs of the Serbian economy, effectiveness of their implementation, their efficiency in the Serbian economic and fiscal context, their sustainability and their impact at the different time horizons.

### Relevance

Questions	Target groups
How important were the two specified policy conditions on the government agenda?	Ministry of Finance Office of Prime Minister
Do you think they would have been implemented without being on the MFA MoU?	Fiscal council Ministry of Finance Office of Prime Minister
Was there any prior intention to introduce an automatic deficit rule? (the MFA MoU was signed in July 2010 while the fiscal balance rule is mentioned in the Letter of Intent of the Serbian government to the IMF in June 2010)	Ministry of Finance Office of Prime Minister
The MFA MoU specified the requirement of “quantitative fiscal rules”. The Serbian authorities introduced a Fiscal Deficit Rule and a set of indexation rules for public wages and pensions (along with corresponding targets). Did the Commission have these specific rules (or any other) in mind when designing the MFA policy conditions?	DG ECFIN
Was the Serbian government considering the alignment of its Public Internal Financial Control standards to the policy conditions from the MFA MoU before the decision on the MFA was made (i.e. before November 2009)?	Ministry of Finance Office of Prime Minister
How relevant are the short and medium-term expected structural effects of the assistance to the needs of Serbia?	Fiscal council Ministry of Finance Office of Prime Minister

**Effectiveness**

<b>Questions</b>	<b>Target groups</b>
How is the Fiscal Deficit Rule (and specific indexation rules) are computed operationally (by whom, how they are agreed upon)? How is it revised (each year)?	Common
Whose initiative motivated the introduction of the Fiscal Deficit Rule (IMF requirement, MFA requirement, government own initiative)?	Fiscal council Ministry of Finance Office of Prime Minister
How the medium-term deficit targets were selected (the cap of the medium-term fiscal deficit at 1% of GDP and a cap of debt at 45% of GDP)? How were the weighting parameters chosen?	Fiscal council Ministry of Finance
From your point of view, was the introduction of the Fiscal Deficit Rule beneficial to the Serbian economy in terms of fiscal credibility (should have translated into lower interest rates in Serbian debt, lower CDS on Serbian debt)?	IMF WB
How does the fiscal rule coexist with automatic stabilizers? (implementation issue)	Ministry of Finance Fiscal council
Did the authorities develop any implementation rulebook in order to resolve practical issues arising from this numerical deficit rule?	Ministry of Finance Fiscal council
The policy paper on necessary Public Internal Financial Control measures was approved in November 2009 (before the decision on the MFA was taken). Given that, do you think the corresponding recommendations would be introduced in the Serbian legislation in absence of the MFA? Would the schedule of implementation differ from the actual one (did the MFA accelerate the adoption of these measures)?	Ministry of Finance Fiscal council

**Efficiency**

<b>Questions</b>	<b>Target groups</b>
What was the motivation behind the Fiscal Deficit Rule (as opposed to discretion) – tying the government hands to acquire fiscal credibility? (i.e. like the Stability Pact in the Eurozone).	Common
What were, from your point of view, the plausible alternatives to the Fiscal Deficit Rule?	Common
Were any other options than the Fiscal Deficit Rule considered?	Fiscal council Ministry of Finance

### **Sustainability**

Issues with fiscal deficit rules:

- Practical: depends on growth forecasts, the latter should be robust and indisputable if the fiscal rule is to acquire credibility.
- In recession, if a more expansionary policy is needed to push the economy back on track, wouldn't there be a necessity (or at least a temptation) to use expansionary fiscal policy beyond the limits specified in the Fiscal Deficit Rule?

<b>Questions</b>	<b>Target groups</b>
Given these uncertainties and the actual non-compliance with the rule in 2011, what is the credibility of the fiscal rule?	Fiscal council IMF
What were the reasons of the actual deficit deviation from the target specified in the Fiscal Deficit Rule in 2011?	Fiscal council, Ministry of Finance
How are the external debt sustainability evaluated in Serbia (in technical terms)?	NBS Treasury

### **Impact**

<b>Questions</b>	<b>Target groups</b>
Could you please give examples (qualitatively, without specifying numbers) of the gains induced by the implementation of the PIFC related provisions?	Ministry of Finance
What are the complementary/additional steps that need to be undertaken in order to make the policies specified in the MFA MoU and implemented fully effective and efficient	Common

### **Additional questions**

<b>Questions</b>	<b>Target groups</b>
Would you be willing to take part in our Delphi analysis?	Common



## **Appendix C – Our modelling approach**

### **Evaluation of the net macroeconomic and external financial sustainability effects of MFA**

This phase aims at providing a counterfactual analysis of how the economy would have evolved in absence of the Macro Financial Assistance operations (i.e. of the EUR 100 million loans).

The first stage is the construction of the macroeconomic model of the Serbian economy. In order to evaluate the net impact of the MFA we have to assess how the main macroeconomic aggregates would evolve in absence of the MFA. Since the macroeconomic aggregates are closely interrelated we have to establish these relationships and parameterize the strength of change in each aggregate in response to the change in others.

Thus, the model of the Serbian economy consists of:

- A set of agents constituting the economy;
- The macroeconomic indicators aggregating the actions of these agents;
- The equations describing the links between macroeconomic aggregates.

#### **a) Agents**

- The model comprises four sets of agents:
- Public sector (government and the Central Bank of Serbia, further referred as NBS);
- Non-financial private sector (households and firms);
- Financial private sector (mainly banks);
- The rest-of-the world (an agent aggregating foreign consumers, firms, investors, governments, etc).

#### **b) Macroeconomic aggregates**

We identify the main indicators on which the Macro-Financial Assistance would have had a straightforward impact, for instance:

- The public deficit (through the disbursement of funds);
- The balance of payment (through the improvement of the capital account);
- Public debt (the debt/GDP ratio, the maturity structure of public debt);
- Official reserves.

There are also indicators for which the MFA would have had an indirect impact, for instance:

- Exchange rate;
- Inflation rate;
- GDP growth rate;
- Interest rates.

The two sets of indicators have to be accounted for and the interactions between them constitute the backbone of our modelling.

### **c) Equations describing the relations between different macroeconomic aggregates**

The model is composed of the four main building blocks:

- The government budget constraint equation;
- The balance of payment (external constraint) equation;
- Financial sector budget constraint equation;
- GDP identity equation;
- and a multitude of equations ensuring links between these four main ones.

Here we do not fully specify the model spelling out all the linking equations, but we explain the logic of our model outlining the four main equations and briefly describing the links between them.

### **d) Logic of the model**

The MFA loan would directly and simultaneously impact the government budget constraint and the country's external constraint (balance of payment constraint).

It would also produce an indirect impact on other variables through the impact on these two constraints. Finally, the change in these variables would potentially produce a feedback on the fiscal and external constraints.

Thus, we first construct the baseline scenario with the MFA loan awarded and involving the three types of impacts mentioned above, fitting in the actual data.

In the second step, we assume the absence of the MFA loan and the resulting direct effects on the government budget and the balance of payment.

In the third step, we consider a) the policy responses of the government and b) the variations in the macroeconomic aggregates indirectly affected by the absence of the MFA. To evaluate the policy responses a) we rely on the consultation of the relevant stakeholders; to evaluate variations in the macroeconomic aggregates, we rely on the latter and on the data analysis and literature review. This allows calibrating the model with the most plausible values of different parameters<sup>37</sup>.

This allows us elaborating a set of counterfactual scenarios without the MFA loan. These scenarios provide the impact on all the relevant macroeconomic aggregates thanks to the relations defined between different indicators in our model of the Serbian economy.

Comparing the baseline scenario with the counterfactual scenarios allows identifying a range of net effects of the MFA.

A similar approach would be adopted for the construction of a counterfactual "no MFA loan/no IMF loan".

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<sup>37</sup> We run a sensitivity analysis by changing the values of different parameters.

The following paragraphs detail the model under consideration:

### **1<sup>st</sup> building bloc - The government budget constraint equation**

Consider the budget constraint of the government in year t=0:

$$S_G = T - P_{CPI} \cdot G - t_{trans} \cdot P_Q \cdot Q + T_{grant} \cdot e$$

Where  $S_G$  is government savings,  $P_{CPI}$  is consumer price index,  $G$  is public expenditures,  $t_{trans}$  is the payment to the rest of the world on the existing stock of debt,  $T_{grant} \cdot e$  is foreign financial assistance (in foreign currency, thus parameterized by the exchange rate). Due to inverse repo operations, the NBS used to withdraw money from the circulation in the period under consideration instead of creating additional money supply. This operation increased the policy interest rate (and all other interest rates), and added up operational costs to the Central bank. Hence, the sign of  $S$  is negative ( $S < 0$ ).

The fiscal constraint would be impacted twofold: providing the government with additional resources in year 0 (in 2011, the year of disbursement) - on the side of the resources - and by increasing the debt payments in the years to come.

How would the fiscal constraint be adjusted in absence of the MFA? In order to "fill the hole" Serbian government could:

- Decrease public expenditures (operational or capital);
- Increase taxation;
- Borrow more on the capital markets (with the Serbian government debt purchased by domestic or foreign investors);
- Speed-up privatisation of the SOE and collect proceeds in the budget.

The indicated choices identify four abovementioned parameters as "policy variables". The choice of the Serbian government of the policy response mix - *which instruments to use and in what proportions* - would have produced different impact on the economy.

We then construct several counterfactual scenarios with different policy response mix. Construction of each of the scenarios and assessment of the likelihood of each of the scenarios is **based on the consultation with the competent stakeholders (in particular representatives of the Serbian government) and the data analysis**.

Once the plausible counterfactual scenarios are defined, **we evaluate the effects of different policy response mixes on real GDP** (this effectively ensures the link between government budget constraint and the GDP identity equation), **inflation, current account deficit and external financial sustainability**.

- A decrease in public expenditures and/or an increase in taxation would have directly produced an adverse effect on the real GDP (cf. GDP identity equation), the importance of this effect (the fiscal multiplier) for Serbia is assessed based on the literature review;

- Increased foreign borrowing is evaluated in the context of medium and long term external financial sustainability (with a specific attention to the evolution of the interest rates on the public debt).

Fiscal sustainability is a major component of the external sustainability analysis. In the long run, primary surplus covers the service of public debt. This implies, at minimum:

$$P_t = r_{t-1} B_{t-1}$$

where

- $P_t$  is the primary surplus of the budget at date  $t$ ;
- $r_t$  is the nominal interest rate on the public debt;
- $B_{t-1}$  is the existing stock of public debt.

Thus, solvency of a country is determined in the long run or at any point in time, by the following formula:

$$p + \frac{g_N}{1 + g_N} m = \frac{(r - g_N)}{1 + g_N} b$$

where

- $p$  is the primary surplus of the budget to GDP;
- $r$  is the nominal interest rate on the public debt;
- $m$  is the growth rate of the monetary base;
- $g_N$  is the growth rate of the nominal GDP;
- $b$  is the ratio of the existing public debt to GDP.

Money is created in Serbia only through foreign exchange transactions. Thus, net capital inflow creates additional local currency supply, while capital outflow reduces the money supply. As we already mentioned, the NBS drained liquidity from the monetary system by using reverse repo operations on the open market. An increase in the money base does not provide seigniorage revenues to the NBS.

Thus, the net effects, direct and indirect, of MFA on size of the public debt and the average nominal interest rate on the public debt are taken into account based on the equations above.

## **2<sup>nd</sup> building bloc - The balance of payment (external constraint) equation**

The Macro-Financial Assistance (MFA) would also have a direct effect on the balance of payment. Thus, evaluation of the net effects of the MFA takes into account the effects going through the balance of payment.

The balance of payment is given by:

$$BoP = \underbrace{X - M + F_e - F_p}_{\text{Current account}} + \underbrace{K_{in} - K_{out}}_{\text{Capital account}} + \underbrace{\Delta OR}_{\text{Official reserve change}} = 0$$

Where  $X - M$  is the trade balance (exports minus imports),  $F_2$  - earnings from the rest-of-the-world (including remittances),  $F_3$  - payment to the rest-of-the-world (including payment on existing public and private debt),  $K_{in}$  are capital inflows (including Foreign Direct Investment and the MFA) and  $K_{out}$  are capital outflows,  $\Delta OR$  are changes in the official reserves (a positive sign means a fall in the official reserves).

At the inception of the crisis, the Serbian economy experienced a drop in remittances and an important outflow of capitals. A correction of the trade balance (both imports and exports decreased, but drop in imports was more important than the decrease in exports) compensated for this shortfall.

Had the MFA not been awarded, the capital account would have fallen short of EUR 100 million. The subsequent adjustment of the Balance of Payment could have theoretically gone through:

- Financing through new foreign loans (from banks or international organisations) or grants;
- A further adjustment of the trade balance (especially a reduction in imports);  
or
- A reduction in the level of official reserves hold by the NBS (which has a precautionary floor corresponding to six months of import).

Once again, we construct two or more counterfactual scenarios involving one of the three options to a different extent. The assessment of the likelihood of each of the counterfactual scenarios is again **based on the consultation with the relevant stakeholders and data analysis**.

New foreign loans induce an increase in the public debt/GDP ratio, which has a legal ceiling of the 45 percent of GDP. In order to assess the net effect of the MFA, we would have to compare the characteristics of the MFA loan to the borrowing terms for Serbia on the capital markets - interest rates in particular. This comparison is possible provided Serbia's borrowing capacity was not saturated at the moment when the MFA was awarded<sup>38</sup>. Examination of the Serbian public finances undertaken in the first section hints that it was not the case. Thus, we can **compare the characteristics of the MFA loan with the characteristics of loans contracted by Serbia in 2009 before the MFA stepped in and make inferences about the net change in the external financial sustainability induced by the Macro-Financial Assistance**.

Note that the potentially positive impact of the MFA on the external financial stability would not simply translate into lower need of borrowing on the capital markets and/or more favourable borrowing terms, but could also improve the borrowing terms before any of the MFA loan was disbursed. Indeed, the borrowing terms of a country depend pro-cyclically on its external financial sustainability: if the private investors forecast an improvement of Serbia's financial situation due to the MFA they would be willing to lend to Serbia at lower interest rates (risk premium on Serbian debt going down). Thus, we also compare the trajectory of the interest rates on Serbian debt before and after the decision of the Macro-Financial Assistance was taken and announced.

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<sup>38</sup> A country loses its borrowing capacity when markets consider it is on a brink of default. The interest rates offered on the newly emitted debt would then have to be prohibitively high, driving the country out of the capital markets.

A continuing adjustment of the trade balance accompanying the depreciation of the Serbian currency is another possible outcome. From 2008, the Serbian dinar was under “managed floating” and the authorities did not have any commitment to defend a parity of the national currency with a foreign currency. Thus, the depreciation of the dinar - already ongoing at the moment of disbursement of the MFA loan - would have been likely to accelerate had the MFA not been awarded.

Let us define a nominal exchange rate of the dinar in terms of the euro  $e = \text{RSD}/\text{EUR}$  (as it is the official practice in Serbia). Then, the real exchange rate is:

$$q = \frac{e \cdot \text{CPI}^{\text{EU}}}{\text{CPI}^{\text{RS}}}$$

where CPI (Consumer Price Index) stands for the levels of CPI in the Euro zone and Serbia. It encompasses the similar bundles of home and foreign goods, respectively. Terms of trade is defined as the ratio of two price indices:

$$s = \frac{\text{CPI}^{\text{EU}}}{\text{DPI}^{\text{RS}}}$$

Where DPI is Domestic Price Index (foreign goods are excluded). There is a link between CPI and DPI which depends on the level of openness of the economy and elasticity of substitution in consumption between domestic and foreign goods.

The effects of real exchange rate depreciation on GDP are:

- Exports become cheaper in terms of foreign currency, while imports become more expensive;
- Payment on the existing debt denominated in foreign currency increases in national currency.

The immediate effect of real currency depreciation (an increase in  $q$ ) is the worsening of the terms of trade of the home country – one unit of domestic good exchanges for fewer units of foreign goods (an increase in  $s$ ) - since foreign prices in terms of local currency relatively increased to domestic prices. This would achieve an improvement in the current account because price adjustment is immediate while quantity adjustment takes longer.

In the second period, quantities adjust: foreign demand for national exports increases (in reaction to its lower price), while domestic demand for foreign imports decreases (since they are more expensive), increasing the volume of exports and decreasing the volume of imports.

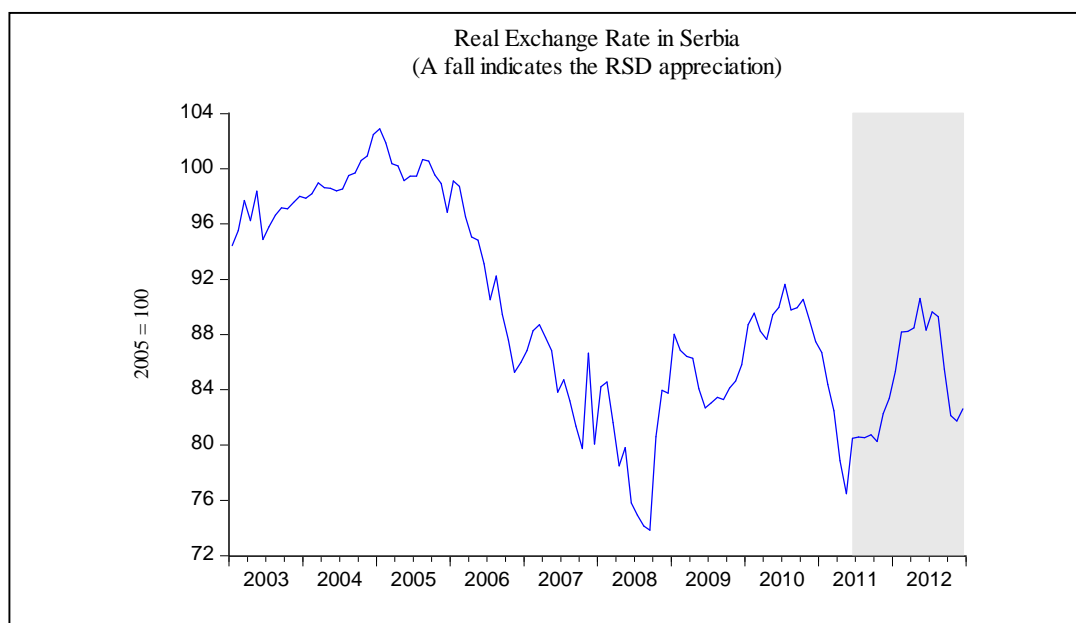
The relative importance of these two effects depends on the price elasticity of exports and price elasticity of imports<sup>39</sup>. For the national currency depreciation to increase real GDP, the improvement in foreign trade in volume terms must outweigh the effects of the fall in domestic demand in volume terms due to the rise in import prices<sup>40</sup>.

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<sup>39</sup> For the currency depreciation to improve the country's trade balance, the sum of the price elasticity of exports and price elasticity of imports is greater than 1 (Marshall-Lerner condition). Empirical evidence shows a relationship in the form of a J-curve: first the terms of trade effect worsens the current account balance, then the quantity adjustment improves it.

<sup>40</sup> Price elasticities are determined by the characteristics of the country specialisation (size of the industry vs. non-exportable services), the nature of its imports (e.g. whether a country is importer or exporter of oil), the proportion of imports in exports, etc.

In order to assess the net impact of the MFA, we would have first to look at how the rhythm of the currency depreciation would have changed had the MFA not been awarded.



For that sake we **estimate the price elasticity of exports and price elasticity of imports for the Serbian economy** - this would be done through an extensive data research, in particular based on the existing estimations (if any). If no such data exists, we would have to make a set of reasonable assumptions and validate them by the expert opinion (representatives of the Serbian Ministry of Finance, of the IMF, etc.). The resulting range of estimates would allow us constructing scenarios of additional depreciation required in absence of MFA.

Second, we **consider the size of the additional adjustment in the balance of payment (equal to the amount of the MFA)** and apply the range of our estimates of price elasticity of exports and price elasticity of imports in order to find out the effects on demand and real GDP of the additional currency depreciation.

The share of external debt (public and private) denominated in foreign currency is another important channel through which domestic currency depreciation impacts the economy. Qualitatively, higher proportion of external debt denominated in foreign currency would mean depreciation increases the value (in terms of national currency) of the debt burden for private agents and the State whose liabilities are in foreign currency. Thus, once we have our range of estimates for the additional depreciation of the dinar required in absence of the MFA, our task was to assess the importance of the share of external debt (public and private) denominated in foreign currency in Serbia, and then to study the impact of this increased debt burden, in particular on the increase in the number of defaults.



**3<sup>rd</sup> building bloc - Financial sector budget constraint equation**

The assets and liabilities of the domestic financial sector equalize as follows:

$$A_F + A_D + A_{GOV} = L_F + L_D + M_3$$

On the assets side,  $A_F$  is foreign assets held by the domestic financial institutions,  $A_D$  is domestic assets held by the domestic financial institutions,  $A_{GOV}$  is the public debt held by the domestic financial institutions.

On the liabilities side,  $L_F$  are foreign liabilities of the domestic financial institutions,  $L_D$  is domestic liabilities (capital), while  $M_3$  is the broad money supply (including cash, local and foreign currency deposits, equity capital of the financial sector and its loan-loss provisions, and treasury bills).

It is useful for our analysis to split assets and liabilities into private and public parts, and distinguish between them whether they belong to a local currency area or a foreign currency area. Then, we rearrange all terms in order to define net foreign assets (NFA) and net domestic assets (NDA) as follows:

$$\frac{A_F^{PR} + A_F^{GOV} - L_F^{PR} - L_F^{GOV}}{NFA} + \frac{(A_D^{PR} + A_D^{GOV} - L_D^{PR} - L_D^{GOV})}{NDA} = \frac{M_3}{M3+EQP}$$

Let us note that a dual currency system prevails in the Serbian economy (foreign currency is legally used as a parallel means of payments and accounting unit). The broad money supply is M3 aggregate, in which foreign currency deposits dominate over M2 aggregate (cash and the dinar's deposits with the NBS that are used for transaction purposes).

The link with the financial sector is determined through:

- Valuation effects on foreign assets vs. foreign liabilities induced by an additional depreciation;
- The impact on the broad money supply induced by capital inflow and repo operations;
- The volume of government debt held by the domestic financial institutions.

In all the cases, the amount of the MFA provides an upper bound for the counterfactual. What would be the impact of the *absence* of the MFA on the financial sector budget constraint and through this:

- On the macroeconomic indicators,
  - On the long-run external financial sustainability?
1. Additional depreciation would reduce the net foreign assets held by the domestic financial institutions, forcing them *ceteris paribus* to reduce their lending to the domestic private sector (with a negative impact on investment);

2. On the contrary, monetary emission due to inflow of foreign capital (loans or FDIs) would increase the money supply fuelling additional domestic lending (with a positive impact on investment). However, to the extent this increase in money supply would have been inflationary, it would push the nominal interest rates up (with a negative impact on investment);
3. An increase of government debt held by the domestic financial institutions would have produced at least partial eviction of the lending to domestic private sector (with a negative impact on investment).

It is impossible to assess a priori and qualitatively the net effects of these three aspects of the counterfactual. For which of these effects, we spell out the corresponding equations, parameterize them - based on the review of economic literature and the consultation with experts of the Serbian economy - and evaluate these net effects.

**4<sup>th</sup> building bloc - GDP identity equation:**

$$\underbrace{Y}_{\text{domestic production}} = \underbrace{C+I}_{\text{domestic private demand}} + \underbrace{G-T}_{\text{Government budget balance}} + \underbrace{X-M}_{\text{Trade balance}}$$

Where Y is domestic output, C - domestic private consumption, I - domestic private investment, G - public expenditures, T - fiscal revenues, X - exports, M - imports.

The differential impact on the GDP between the baseline scenario (MFA awarded) and the counterfactual scenarios (no MFA) would cumulate the differences over several elements:

- Evolution of the government spending and taxation;
- Change in the investment;
- Variation of exports and imports.

In addition, in order to evaluate the impact on the real GDP we take into account the change in the inflation rate in the counterfactual scenarios (no MFA). Real GDP equals to the nominal GDP deflated by the price index. Therefore, the comparison of real GDP for the baseline scenario (MFA) vs. counterfactual scenarios (no MFA) would have to take into account the differences in the price index (the GDP deflator).

Apart from visible and direct effects, we identify evolutions which could be attributed to MFA in an indirect way (e.g. lower risk premium on the government debt due to enhanced credibility itself produced by an adherence to fiscal rules, etc.).

As stated above, counterfactual scenarios of the absence of Macro-Financial Assistance give different configurations of this equation, depending on hypotheses of the evolution of government expenditures, trade balance or domestic demand. Thus, the net effect of the MFA on Serbian GDP or GDP growth is a *range* of results rather than one result.

In order to close the model, we have to allow for feedback effects of the national GDP evolution on the macroeconomic aggregates seen before (public deficit, current account, etc). For instance if government cuts its expenditure its deficit would be cut less than proportionately because of the depressing and multiplicative effect of public spending cuts on GDP<sup>41</sup>.

As a general methodological feature, the net effects of the MFA operations would be estimated by reassessing the evolution of the macroeconomic indicators 1°) without MFA loan funds alone and 2°) without MFA and IMF loans.

The output of our modelling approach would include a set of counterfactual scenarios providing a range of estimates for the MFA net effects.

The summary of the MFA net effects would include the impact of the MFA on different macroeconomic indicators, including:

- Real GDP;
- Inflation;
- Debt/GDP ratio;
- CAB/GDP ratio; and
- Fiscal deficit/GDP ratio.

Ultimately, face-to-face discussions with key MFA stakeholders (in particular Serbia officials and DG ECFIN representatives) allowed choosing the best - the most plausible - counterfactual scenario and narrowing the range of MFA impact estimates.

For the check of consistency, we provide a Social Accounting Matrix (SAM) for Serbia in 2011 and 2012, which combines in a systematic way all the macroeconomic accounts. The blueprint of such a matrix is reported on the next page. The matrix is constructed based on the data from the Serbian Statistical Office.

SAM explains links between four main agents in our model (Government, ROW, Financial and Real sectors). Rows in the matrix indicate the origin of respective macro aggregates. Columns in the matrix show allocation across different agents and accounts or final use of these aggregates. Since the total sum of rows and columns should exactly match to each other, the SAM matrix embodies the notion of a general equilibrium. All variables are expressed as flows of funds. In the monetary survey block (MS) values are recorded as annual changes in respective monetary stocks. Our equations follow the logic of the SAM.

The following table provides a SAM matrix that is used for the counterfactual modelling.

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<sup>41</sup> Empirical literature on the multiplier effect of government spending (or, in reverse, government spending cuts) produces contradictory conclusions. However, given a set of qualitative characteristics of the Serbian economy, we could

Social Accounting Matrix (SAM) for Serbia

	X	D	M	E	Q	Y	BUD	I	S	TAX	NONTAX	C	G	MS	ROW	Total	
X		Domestic product		Export													GDP at factor cost
D					Domestic product												Domestic product
M					Import at border prices +tariffs												Total import
E															Export		Total export
Q								Investment				Private consumption	Public consumption				Composite goods
Y	GDP						Transfers									Net factor income	Income formation
BUD									Fiscal balance	Tax revenues	Non-tax revenues					Net official transfers	Fiscal revenues
I							Capital expenditures		Investments					ΔNDA			Investments
S						Private savings										Current account balance	Savings
TAX			Tariffs		PDV+ Excises - Subsidies	Direct taxes			Subsidies								Taxes
NONTAX						Non-tax revenue											Non-tax income
C						Private consumption											Private consumption
G						Public consumption											Public consumption
MS									ΔM3								Liabilities
ROW			Import at border prices											ΔNFA			Rest of the World
Total	GDP at factor cost	Domestic product	Total import	Total export	Composite goods	Income spending	Fiscal expenditures	Investments	Savings	Taxes	Non-tax income	Private consumption	Public consumption	Assets	Rest of the World		

The following table provides a specification of the equations that we will use in our counterfactual modelling.

<b>Nominal Flows</b>			
	Equations	Variables	Parameters
Tax revenue	$T = t_{tar} \cdot P_M^W \cdot e \cdot M + t_{VAT} P_Q \cdot Q + (t_{inc} + t_{non}) \cdot Y$	$P_M^W$ (world price of import at the border), $Y$ (aggregate income), $e$ (exchange rate), $T$ (tax revenue)	$t_{tar}$ (tariff rate), $t_{VAT}$ (value added tax + excises), $t_{inc}$ (direct taxes on income), $t_{non}$ (share of non-tax revenue in income)
Aggregate income	$Y = P_X \cdot X + t_{trans} \cdot P_Q \cdot Q + T_{rem} \cdot e$	$P_Q$ (price of composite goods), $P_X$ (price of output at factor costs) $T_{trans}$ (transfer payments), $T_{rem}$ (remittances and net factor income from abroad)	
Aggregate savings	$S = s_{inc} \cdot Y + e \cdot B + S_G$	$S$ (aggregate savings), $S_G$ (government savings), $B$ (current account balance)	$s_{inc}$ (aggregate savings rate)
Government savings (fiscal balance)	$S_G = T - P_{CPI} \cdot G - t_{trans} \cdot P_Q \cdot Q + T_{grant} \cdot e$	$P_{CPI}$ (consumers price)	$T_{grant}$ (foreign aids)
Net change of broad money supply	$\Delta M3 = a_m \cdot [\gamma \cdot \Delta NFA^{-\phi} + (1 - \gamma) \cdot \Delta NDA^{-\phi}]^{-\frac{1}{\phi}}$	$M3$ (broad money supply), $NDA$ (net domestic assets), $NFA$ (net foreign assets, including international reserves)	$a_m$ (shift parameter), $\gamma$ (share of NFA in monetary assets), $\phi$ (elasticity of substitution between foreign and domestic assets)
Ratio between NFA and NDA	$\frac{\Delta NFA}{\Delta NDA} = \left[ \frac{i}{i^w} \cdot \frac{\gamma}{1 - \gamma} \right]^{\frac{1}{1+\phi}}$	$i$ (domestic interest rate), $i^w$ (foreign interest rate)	

<b>Nominal Flows</b>			
NFA	$NFA = NFA^W \cdot e^{-1}$	NFA <sup>W</sup> (Net foreign assets in terms of foreign currencies)	
Foreign interest rate	$i^W = i_{given}^W$		
Domestic interest rate	Separately determined by uncovered interest rate parity		
<b>Prices</b>			
	Equations	Variables	Parameters
Import price definition	$P_M = e \cdot P_M^W \cdot (1 + t_{tar})$		
Export price definition	$P_E = e \cdot P_E^W$	P <sub>E</sub> <sup>W</sup> (world price of export at the border)	
CPI definition	$P_{CPI} = (1 + 1_{VAT}) \cdot P_Q$		
Output price definition	$P_X = \frac{P_E \cdot E + P_D \cdot D}{X}$		
Supply Price definition	$P_Q = \frac{P_M \cdot M + P_D \cdot D}{Q}$		
Numeraire	$e = 1$		
<b>Equilibrium Conditions</b>			
	Equations	Variables	Parameters
Current account balance	$B = P_M^W \cdot M - P_E^W \cdot E - T_{rem}$		
Investment-saving relationship	$S + B = S_G + I + \Delta M3$		
Closure rule	$B = B_{given}$	Aggregate saving is adjusted to investment	

## **Appendix D – List of persons interviewed**

Name	Position
<b>International Institutions</b>	
<b>International Monetary Fund (IMF)</b>	
Bogdan Lissovolic	IMF representative in Serbia
Marko Paunovic	Economist
Desanka Nestorovic	Economist
<b>World Bank</b>	
Loup Brefort	Country Manager Serbia, World Bank
Lazar Šestović	Country Economist, Serbia, World Bank Office in Serbia
Duško Vasiljević	Private Sector Development Specialist for Serbia, World Bank HQ
<b>European Union Delegation to Serbia</b>	
Freek Janmaat	EU Delegation in Belgrade
Dimitrije Stankovic	EU Delegation in Belgrade
<b>European Commission</b>	
Carole Garnier	DG ECFIN Head of Unit – Candidate and pre-candidate countries
Christophe Pavret de la Rochefordière	Former DG ECFIN Deputy Head of Unit Economies of the candidate countries and potential candidates
<b>Serbian institutional and administrative representatives</b>	
<b>Fiscal Council of the Republic of Serbia</b>	
Vladimir Vučković	Member of the Fiscal Council
Danko Brčerević	Special Advisor
<b>National Bank of Serbia (NBS)</b>	
Branko Hinic	Director of Research, NBS
Mirko Djukic	General Director, NBS (de-facto responsible for the modelling framework)
<b>Serbian Government</b>	
Nataša Šimšić	Assistant Minister, CFCU, Ministry of Finance and Economy
Kalina Markovic Ilić	Head of Tender Preparation, CFCU, Ministry of Finance and Economy
Goran Simunović	Head of Section, CFCU, Ministry of Finance and Economy
Gerard Ennis	Team Leader, Support to the PIFC Project, Phase 3, Ministry of Finance and Economy
Ana Ilić	Assistant Director, Serbian European Integration Office
Milena Radomirović	Department for planning, programming, monitoring and reporting on EU funds and development assistance, Serbian European Integration Office
Svetlana Ljubičić	Treasurer, Treasury Department, Ministry of Finance and Economy
Gordana Pulja	Assistant director Budget Execution Department, Treasury Department, Ministry of Finance and Economy
Vera Vukčević	Head of Accounting Division – Budget Accounting and Reporting Department, Treasury Department, Ministry of Finance and Economy
Petar Špadijer	Acting Director, General Secretariat of the Government, Human Resource Management Service, SUK - Human Resource Management Service, Ministry of Finance and Economy
Nada Obradović	Assistant Director Human Resource Management Service, SUK -



Name	Position
	Human Resource Management Service, Ministry of Finance and Economy
Snezana Antonijevic	Head of Training Centre, SUK - Human Resource Management Service, Ministry of Finance and Economy
Milan Radakovic	Officer, SUK - Human Resource Management Service, Ministry of Finance and Economy
Sasa Markovic	Assistant Secretary General, Prime Minister Office
Branko Drcelic	Director, Public Debt Administration, Ministry of Finance and Economy
Jelena Sedlacek	Head of European Integration Department, Ministry of Finance and Economy
Goran Cvejic	Assistant Minister, Sector of Internal Control and Internal Audit, Head of CHU, Ministry of Finance and Economy
Marko Lisica	Macroeconomic Analyst, Ministry of Finance and Economy
Marinko Bosnjak	Head of Economics Analysis, Ministry of Finance and Economy
Veronica Ignjatovic	Assistant Minister, Department for International Cooperation, Ministry of Finance and Economy
Slavko Kapuran	Assistant Director, Republic Statistical Office, Serbia
Miladin Kovacevic	Deputy Director, Republic Statistical Office, Serbia
<b>Private Sector</b>	
Branislav Radovanoivić	Deputy CEO, UniCredit Bank, Serbia
Ljiljana Berić	CFO, UniCredit Bank, Serbia
Alen Dobrić	Chief Risk Officer, UniCredit Bank, Serbia
Nikola Vuletić	Head of Retail Division, UniCredit Bank, Serbia
Sonja Miladinovski	Member of the Executive Board for Treasury and Finance, Societe Generale Banka AD Beograd
Dragoslav Velickovic	Head of the macroeconomic research and analysis, Societe Generale Banka AD Beograd
Goran Pitic	President to The Board of Directors, Societe Generale Banka AD Beograd
<b>Persons of Interest</b>	
Dejan Šoškić	Former Governor - NBS

## **Appendix E – list of literature and data sources**

### **European Commission**

- DG ECFIN documentation related to the Macro-Financial Assistance (MFA)
- Serbia, Progress Report 2012, Commission Staff Working Document accompanying the document Communication from the Commission to the European Parliament and the Council, Brussels, 10 October 2012
- Joint Declaration by the European Parliament and the Council adopted together with the decision providing further macro-financial assistance to Georgia, 12 August 2013

### **International Monetary Fund**

- Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding, December 25, 2008;
- Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding April 30, 2009;
- Letter of Intent and Technical Memorandum of Understanding, December 3, 2009;
- Letter of Intent and Technical Memorandum of Understanding, March 18, 2010;
- Letter of Intent and Technical Memorandum of Understanding, June 10, 2010;
- Republic of Serbia: Staff Report for the 2010 Article IV Consultation, Third Review Under the Stand-By Arrangement, and Financing Assurances Review, April 2010;
- Republic of Serbia: Seventh Review and Inflation Consultation Under the Stand-By Arrangement, April 2011;
- Republic of Serbia: Ex Post Assessment of Longer-Term Program Engagement and Ex Post Evaluation of Exceptional Access—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Republic of Serbia, July 2011;
- Republic of Serbia: Request for Stand-By Arrangement, October 2011;
- Republic of Serbia: 2013 Article IV Consultation, July 2013;
- Republic of Serbia: Selected Issues Paper, July 2013.

### **Public Debt Administration (PDA), Ministry of Finance and Economy of the Republic of Serbia**

- Monthly Report for April 2012-January 2013
- Monthly update for investors May 2012-February 2013
- Public Debt Management Strategy 2012-2014

### **National Bank of Serbia**

- Analysis of the Republic of Serbia's debt, September 2012;
- Statistical Bulletin, Monthly publication, 2009-2012;
- Annual Report on Activities and Results, 2011.

***Fiscal Council of Serbia***

- Fiscal Council Press Release on the Establishment of the 2012 Fiscal Framework, November 10, 2011;
- Assessment of Fiscal Rules Compliance in 2011, February 21, 2012.

***Ministry of Finance and Economy of the Republic of Serbia***

- Economic and Fiscal Programme of the Republic of Serbia, January 2012;
- Strategy for Development of Public Internal Financial Control in the Republic of Serbia;
- Fiscal Strategy for 2013 with projections for 2014 and 2015, November 2012;
- Public Finance Bulletin, April 2012
- Law on amendments and addenda to the Budget System Law, October 2010.