The Maddison Project

We all acknowledge that Angus Maddison's life work on the measurement of GDP and population in the world economy between Roman times and the present was not only an unprecendented achievement, but also produced a service that was of great value to the community of economists and economic historians. We also share the idea that it is very important for the profession to continue to render this kind of service, and therefore need to develop ways to continue this work. This cannot be done by one person only (anymore) – nobody has the authority, the expertise and the determination to do this work on his (or her) own. Therefore we have to find another way of doing this – a way that involves cooperation between scholars who are specialists on different regions, topics and periods. This brief note explains what the goals of, what we have called "The Maddison Project" are, how we intend to organize this form of cooperation, which we call 'the Maddison Project', and what are, in our view, the main short-term and long-term challenges of the project.

Goals of the Maddison Project
The main goal of the Maddison Project is to continue the work by Angus Maddison by creating new generations of estimates of GDP, population, and GDP per capita in the world economy between (preferably) 0 and the present, which integrate the state of the art of current research in the field. We aim to generate these statistics in the tradition and spirit of Maddison's work, building them on the basis of historical conjectures, in-depth analysis of the available data, a rooting in the modern tradition of national income accounting, and stressing international comparability over consistency over time. At the same time, we also want to make use of new techniques, and technology to improve the quality of the series and to enhance the distribution of the results to the broader research community.

Organization of the Maddison Project
In order to organize complex forms of academic cooperation, scholars in the sciences have developed the model of the 'collaboratory', "a "laboratory without walls", where scientists are connected to each other, to instruments, and to data independent of time and location, thereby creating a virtual community of peers 'laboratory without walls".[1] The lessons that can be learned from similar experiments are that the 'rules of the game' need to be clear for all participants, and that such a project can only work if there is a real desire and commitment to work together, and to share the fruits of that collaboration.

The central 'medium' of the project is a website on the Maddison Project, http://www.maddisonproject.net, which is hosted by the Groningen Growth and Development Center (GGDC) on which the new estimates will be made available.[2] Linked to this there will be a 'protected' website where the 'work in progress' will be presented, and to which only the participants in the collaborator, including members of the advisory board, have access. Here we can freely discuss problems and solutions, and for organizational matters (such as conferences etc.). The website will be complemented by a dedicated working paper series, which is edited by the working party members.

As a first step, the participants in the collaborary may work in the following way: we will begin by focusing on a number of issues which have to be solved before starting to make the new generation estimates. See the list of problems and questions below. The discussion about these issues will result in a series of working papers, written by members of the collaboratory, resulting in new estimates for some of the foundations of the data series. On this basis, others in the project can begin to contribute to the datawork. Within a period of 3 years we hope that this

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[1] For more background on how this model can be applied to economic history: see http://www.iisg.nl/publications/do-ut-des.pdf.
[2] This website will also provide a link to Maddison's original homepage with the latest version of his historical series, which has been "frozen" as of April 2010

will result in a new set of estimates that can be launched after being assessed carefully by the advisory board.

Governance of the Maddison project
The set up of the Maddison project, as we suggest it, is as follows, and was discussed with Angus Maddison shortly before he passed away

- We have put together a small 'working party', consisting of four scholars familiar with Angus' work and with specific expertise of the economics/economic history of different regions and periods. This working party will coordinate the actual work on the 'new generation' of the GDP dataset; it consists of Bart van Ark (The Conference Board, University of Groningen), Leandro Prados de La Escosura (Carlos III Madrid), Debin Ma (LSE) and Jan Luiten van Zanden (Utrecht University/University of Groningen); the 'working party' is in charge of coordinating the project, overseeing the a website for that purpose, funding the project and – on behalf of the whole research group – publishing the new work; we have opted for a small working party, because of the diseconomies of scale of large teams;
- The scale effects and benefits of expertise across the profession is obtained by having the 'working party' cooperate intensely with a relatively large international advisory board, consisting of experts from different regions and time periods. The advisory board meets preferably once per year, to discuss the 'new generation' estimates, provide recommendations and serve as the 'ears, eyes and mouths' of the project in the wider academic community, in order to keep track of new work in this field which can be used as an input into the new set of estimates. The names of the advisory board members (which were also discussed with Angus Maddison last year) are listed in the appendix to this note;
- We may add another group of 'very important persons' (for example, Justin Lin, Angel Gurria, Francois Bourguignon, Martin Wolff) or 'friend of the Maddison Project' – but would like to solicit your advice.

Issues to be addressed by the Maddison Project
In March 2010, the working party of the project met in Paris, and identified the following problems in need of solution before the next generation of long term estimates can be developed:

- How to integrate the new 2005 PPP's, which have large consequences for China, India, Indonesia – and therefore for the consistency of the whole dataset?

- This, obviously, raises the more general problem of the consistency of the results of the Maddison approach, which used a single benchmark PPP, over time. How to deal with inconsistencies between various ICP rounds and (backcasting of) time series estimates?

- Related to this: what do we do with China? Growth trajectory under communism (but also after 1979) and before 1940s is highly uncertain. Given its huge size, different estimates of the growth of Chinese economy have huge impact on the overall results.

- There are similar concerns about estimates for (pre 1950) Africa, pre 1914 Latin America, and (pre 1950) large parts of Asia.

- What to do with the pre 1800 estimates, which are often highly tentative (and a fortiori, what to do with the very old – Roman Times – estimates); should we try to cover the whole world for all centuries, or concentrate on those countries only for which we have more or less reliable estimates. How 'complete' should the new set of estimates be?

In sum, there are two kinds of problems: a fundamental methodological problem of the consistency of time series and benchmarks, and a (perhaps much less fundamental) problem that we often do not have the data and the knowledge on the economies for which we would like to include such estimates in the global dataset.

The programmes for the meeting of the advisory board and the Maddison memorial conference have been organized in such a way that these various problems will be addressed, and a strategy can be devised on how to move forward on those. We suggest that at some point, and perhaps already in the next series of estimates, we will have to integrate the new 2005 ICP round, and secondly, we have to make better use of the benchmark estimates that have been produced by various (groups) of scholars for the earlier estimates. Preferably, we have to find a way to integrate the information contained in the time series estimates and in the various benchmark estimates in an optimal way. We attach NBER 14499 working paper by Deaton and Heston 'UNDERSTANDING PPPS AND PPP-BASED NATIONAL ACCOUNTS', which addresses some of these problems.

Links to other databases and projects
We would also like to link the new set of estimates with the latest version of the 'Total Economy Database' maintained by The Conference Board (previously by the University of Groningen). The actual series back to 1950 are available from The Conference Board website (http://www.conference-board.org/economics/database.cfm). In addition to Maddison's 1990 PPPs, the TCB database uses 2005 PPPs, which are adjusted for aggregation, the PPP for foreign trade and the "China" factor. This is based on work by Alan Heston, and will also be the basis for the new version of Penn World Tables. We would suggest to use this 2005 PPP dataset, as that would put the Total Economy Database, Penn World Tables and the Maddison project on the same PPP basis (we also attach the memo 'Draft 9/11/09 Modifications of the 2005 ICP Benchmark for PWT 7.0, by Alan Heston on the actual estimates, and in particular the 'China' problem).

The Maddison project is also related to a larger research project, CLIO INFRA, funded by NWO, the Netherlands Science Foundation. This project aims at bringing together large datasets about various aspects of the development of the world economy since about 1500. CLIO INFRA also covers demographic, institutional, and social indicators, and other indices of economic performance (such as heights, real wages, life expectancy, level of education) (see the website at http://clio-infra.eu). CLIO INFRA is a cooperation of a number of Dutch universities and institutes (University of Groningen/GGDC, International Institute of Social History, Utrecht University) and partners from Germany (Tuebingen) and Hungary (Debrecen). The Faculty of Economics and Business at Groningen University has also contributed to the funding of the Maddison project; one postdoc (dr. Jutta Bolt) for a period of four years will be employed to manage the project, and bring together the various series .

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