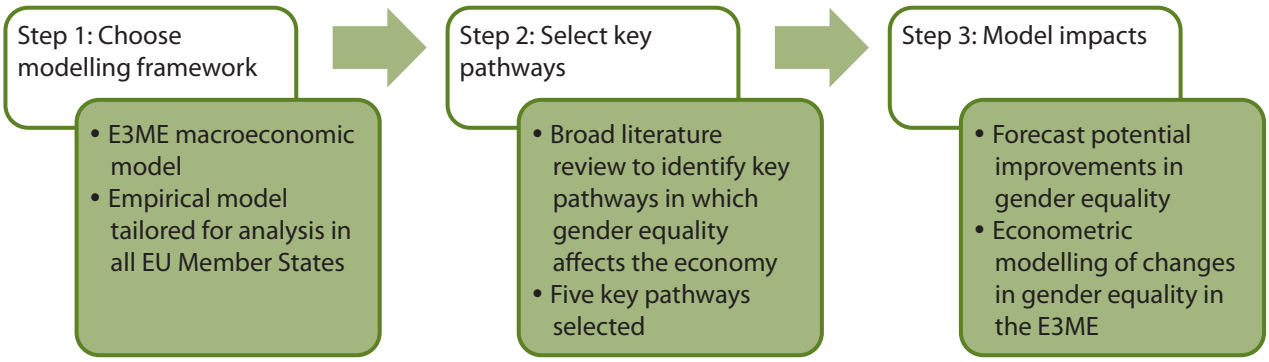
Economic benefits of gender equality in the EU

How the evidence was produced: the theoretical framework and model

The study on the economic benefits of gender equality is unique in the EU context. It is the first of its kind to use a robust econometric model to estimate a broad range of macroeconomic benefits of gender equality in several broad policy areas such as education, labour market activity and wages. It also considers the demographic consequences of such improvements. There is no previous study that has attempted econometric modelling of such a broad range of impacts of gender equality in the EU.

The methodological approach of this study involved three key steps, as shown in Figure 1.

Figure 1. Key methodological steps



Step 1: Choosing the macroeconomic modelling framework

This study uses the E3ME macroeconomic model to estimate the economic impacts of improvements in gender equality. E3ME is an empirical macroeconomic model tailored specifically to model outcomes at EU and Member State levels. The model includes a detailed representation of the labour market and captures interactions at sectoral and national levels.

The key features and limitations of the E3ME modelling framework are summarised in Figure 2 below.

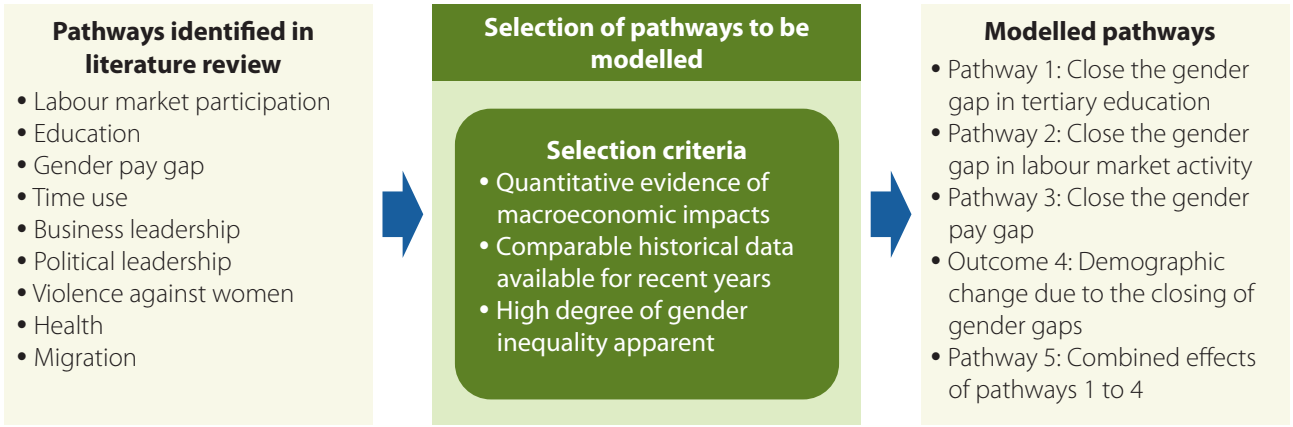
Figure 2. E3ME modelling framework

Model features	E3ME macroeconomic model	Model limitations
➡ Model based on empirical analysis of data rather than theoretical assumptions ➡ Detailed coverage of the EU labour market (activity rates, employment, wages) ➡ Detailed modelling of sectoral and national effects ➡ Rigorous modelling of policy effects, including economic multipliers to capture indirect policy effects	E3ME is a macroeconometric model of the global economy covering separately each EU Member State. It is a well-established model in the EU context — for example, it is used for the annual Cedefop skills projections.	➡ Limited level of detail (focus on impacts evidenced at macroeconomic level) ➡ Some simplification of labour market interactions ➡ Reliance on traditional economic indicators (i.e. GDP) that do not capture all impacts of gender equality ➡ Only considers data harmonised across EU Member States and available over long historical periods

Step 2: Selecting pathways through which gender equality impacts the economy

A range of possible pathways/outcomes ([1]) through which gender equality can positively affect the economy were identified in an extensive literature review. The socioeconomic impacts of gender equality were then discussed with a forum of independent experts to select impacts that could be modelled at macroeconomic level. In the end, four pathways and one outcome were selected based on three main criteria, as shown in Figure 3 below.

Figure 3. Pathway selection



Step 3: Modelling economic impacts of pathways

The first step was to develop a forecast of potential improvements in gender equality in labour market activity, education participation and wages. A forecast of demographic changes resulting from such improvements was also developed, reflecting evidence that higher gender equality tends to increase fertility rates.

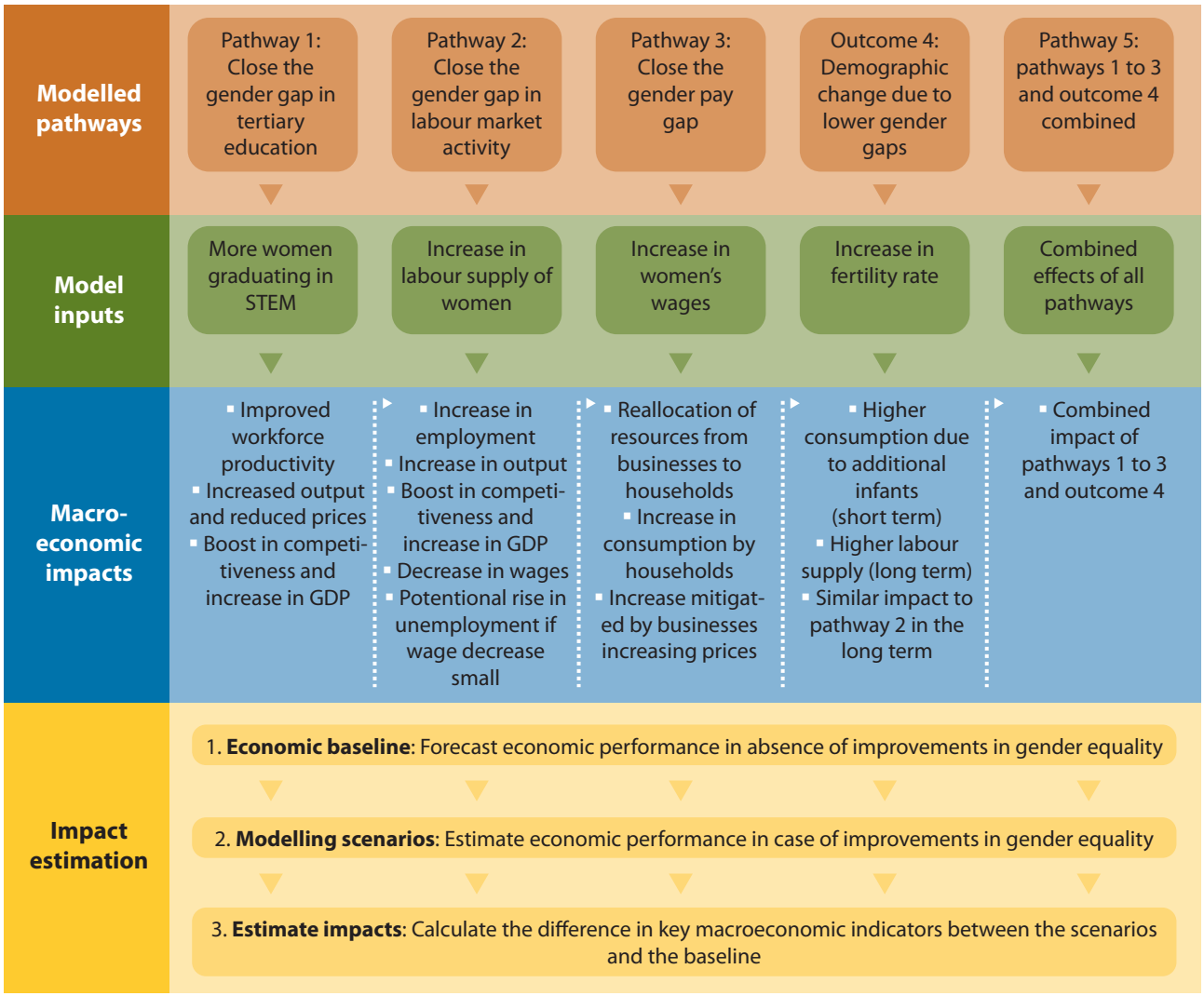
These forecasts were based on a detailed analysis of potential impacts that could arise after adopting and implementing gender equality measures across the modelled pathways. The analysed pathways result in improvements to the situation of women compared to men, because they focus on areas where women face substantial disadvantages.

These forecasts were then put into the E3ME model to assess the wider socioeconomic impacts of gender equality on GDP, employment and other important economic indicators. The forecasts were input separately for each pathway or outcome to allow an estimate of the socioeconomic impacts of each individual pathway or outcome and to avoid double counting. The cumulative effects of combined pathways 1 to 3 and outcome 4 were also modelled to provide a comprehensive estimate of the economic impacts across all pathways and to analyse their possible interactions.

The impacts were estimated by comparing the future economic performance based on continued historical trends (baseline case) with scenarios that forecast improvements in gender equality. The assessment approach is described in more detail in Figure 4.

([1]) The term 'pathway' refers to a certain gender inequality, for which at least a theoretical link to macroeconomic performance has been established in literature. The term 'outcome' refers to potential consequences of gender equality (i.e. change in fertility) that can affect the performance of the economy.

Figure 4. Approach to modelling the macroeconomic impacts of gender equality



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About the study

The study on the 'economic benefits of gender equality' is unique in the EU context. It is the first of its kind to use a robust econometric model to estimate a broad range of macroeconomic benefits of gender equality in several broad areas such as education, labour market activity and wages.

The overall results of the study show that more gender equality would lead to:

- between 6.3 million and 10.5 million additional jobs in 2050, with about 70 % of these jobs taken by women;
- positive GDP impacts that grow over time;
- an increase in GDP per capita of up to nearly 10 % in 2050.

The study used the E3ME macroeconomic model to estimate the economic impacts of improvements in gender equality. E3ME is an empirical macroeconomic model tailored specifically to model outcomes at EU and Member State levels.

The outputs of the study on economic benefits of gender equality in the EU include nine publications:

1. Literature review: existing evidence on the social and economic benefits of gender equality and methodological approaches.
2. EU and EU Member State overviews.
3. Report on the empirical application of the model.
4. How the evidence was produced: briefing paper on the theoretical framework and model.
5. **How the evidence was produced: factsheet on the theoretical framework and model.**
6. Economic impacts of gender equality in the EU policy context: briefing paper.
7. Economic impacts of gender equality: briefing paper.
8. How gender equality in STEM education leads to economic growth: briefing paper.
9. How closing the gender labour market activity and pay gaps leads to economic growth: briefing paper.

All publications, detailed study results and methodology can be found on EIGE's website: http://eige.europa.eu

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