

Effects of IMF-Supported Programs on Gender Inequality

Theo Eicher, Reina Kawai Eskimez, and Monique Newiak

WP/24/247

IMF Working Papers describe research in progress by the author(s) and are published to elicit comments and to encourage debate.

The views expressed in IMF Working Papers are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

**2024
DEC**



IMF Working Paper

Strategy, Policy and Review Department

Effects of IMF-Supported Programs on Gender Inequality**Prepared by Theo Eicher, Reina Kawai Eskimez, and Monique Newiak***

Authorized for distribution by Stefania Fabrizio

December 2024

IMF Working Papers describe research in progress by the author(s) and are published to elicit comments and to encourage debate. The views expressed in IMF Working Papers are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

ABSTRACT: Crises often require economic consolidations that may unevenly affect different segments of the population. Some crisis countries enter financial arrangements with the IMF and adopt adjustment programs, and studies have associated program conditionality with negative impacts on gender inequality. Proper evaluations of the impacts of IMF-supported programs on gender inequality require, however, credible control groups that address the counterfactual: do post-crisis gender disparities evolve differently without an IMF-supported program? We examine over 150 IMF-supported programs (1994-2022) using custom-tailored control groups that match each IMF-supported program country's gender and economic trends and find overwhelming evidence *against* systematic impacts of IMF-supported programs on gender equality.

JEL Classification Numbers:	E60; F40, J16; H51, H52; O40
Keywords:	Gender Inequality; Female Labor Force Participation; Education; Adolescent Fertility; Maternal Mortality; IMF-supported programs; Economic Crisis
Author's E-Mail Address:	Theo Eicher: te@uw.edu ; Reina Kawai Eskimez: rkawai@worldbank.org ; Monique Newiak: mnewiak@imf.org

* Theo Eicher: University of Washington; Reina Kawai Eskimez: World Bank; Monique Newiak: International Monetary Fund. We would like to thank Chie Aoyagi, Jocelyn Boussard, Diego Calderon, Qiaoe Chen, Martin Cihak, Stefania Fabrizio, Eurydice Fotopoulou, Rishi Goyal, Deeksha Kale, Yazan Al-Karablieh, Glen Kwende, Marina Tavares Mendes, Rasmané Ouedraogo, Andrea Schaechter, Cindy Xu, Audrey Mensah Yiadom, and Genet Zinabou for their comments and suggestions. Any mistakes are our own.

WORKING PAPERS

Effects of IMF-Supported Programs on Gender Inequality

Prepared by Theo Eicher, Reina Kawai Eskimez, and Monique Newiak

Table of Contents

Executive Summary	4
Introduction	5
IMF-Supported Program Evaluation and Control Group Methodology.....	8
Motivation	8
Synthetic Control Method (SCM), Bias Correction, and Inference	9
Data.....	13
The Mechanics of SCM: An Application to a Specific IMF-Supported Program	14
The Impact of IMF-Supported Programs on Seven Gender Inequality Indicators	17
Conclusion.....	22
Annex A. Country-by-Country Results: Effects of IMF-Supported Programs on Gender Inequality	23
Annex B. Data Sources.....	42
References.....	43

FIGURES

Figure 1. Female Labor Force Participation Rate: Dominican Republic and its Control Group	16
Figure 2. Female Labor Force Participation Rate: Dominican Republic and Control Group, Normalized and Bias Corrected Data	16
Figure 3. Female Labor Force Participation Rate, Normalized Gender Impact Gap	17
Figure 4. Event Study of Effects of IMF-Supported Programs on Gender Inequality.....	20

TABLES

Table 1. Literature Review on the Impact of IMF-Supported Programs on Gender Inequality	7
Table 2. Gender Effects of IMF-Supported Programs: Summary of Individual Country Results	19
Table A.1.1: Effects of IMF-Supported Programs on Gender Inequality: Adolescent Fertility Rate	23

Table A.1.2: Effects of IMF-Supported Programs on Gender Inequality: Adolescent Fertility Rate, Robustness	25
Table A.2.1: Effects of IMF-Supported Programs on Gender Inequality: Ratio of Female to Male Labor Force Participation Rate	27
Table A.2.2: Effects of IMF-Supported Programs on Gender Inequality: Ratio of Female to Male Labor Force Participation Rate, Robustness	29
Table A.3.1: Effects of IMF-Supported Programs on Gender Inequality: Female Labor Force Participation Rate	31
Table A.3.2: Effects of IMF-Supported Programs on Gender Inequality: Female Labor Force Participation Rate, Robustness	33
Table A.4.1: Effects of IMF-Supported Programs on Gender Inequality: Maternal Mortality Rate	35
Table A.4.2: Effects of IMF-Supported Programs on Gender Inequality: Maternal Mortality Rate, Robustness	36
Table A.5.1: Effects of IMF-Supported Programs on Gender Inequality: Primary Enrollment Gender Parity Index	37
Table A.5.2: Effects of IMF-Supported Programs on Gender Inequality: Primary Enrollment Gender Parity Index, Robustness	39
Table A.6.1: Effects of IMF-Supported Programs on Gender Inequality: Secondary Enrollment Gender Parity Index	40
Table A.6.2: Effects of IMF-Supported Programs on Gender Inequality: Secondary Enrollment Gender Parity Index, Robustness	40
Table A.7.1: Effects of IMF-Supported Programs on Gender Inequality: Tertiary Enrollment Gender Parity Index	41
Table A.7.2: Effects of IMF-Supported Programs on Gender Inequality: Tertiary Enrollment Gender Parity Index, Robustness	41
Table B.1: Data Sources, Variables, and Codenames	42

Executive Summary

Countries facing economic crises often implement extensive fiscal and monetary consolidations to stabilize their economies. Crises impact all social groups and backgrounds and may particularly impact populations in vulnerable situations which often disproportionately include women. Resolution of crises and macroeconomic stabilization aim to move society as whole, including vulnerable parts of the population, to a better position and improve development prospects. Yet, the manner of crisis resolution could leave some worse off. Ex ante, it is not clear which factor would dominate. When facing economic difficulties, some countries adopt IMF-supported programs. A range of studies associate conditionality in IMF-supported programs with an impact on gender inequality. The power of these studies hinges, however, on the degree to which they avoid conflating the impact of crises and the impact of IMF-supported programs on gender inequality.

To properly evaluate the impact of IMF-supported programs on gender inequality, we emphasize the importance of credible control groups to address the counterfactual: how would gender disparities have evolved post-crisis without a program with the IMF? We answer this question by analyzing over 150 IMF-supported programs from 1994 to 2022 using Synthetic Control Methods (SCM). SCM produces custom-tailored control groups that closely match each program country's gender inequality trends and economic conditions at the onset of the crisis, such as fiscal spending, external debt, and reserves. We consider labor force participation; primary, secondary, and tertiary education; maternal mortality; and adolescent fertility as these are the indicators with best data availability for countries across time.

We find no systematic differences in the evolution of gender indicators among crisis countries with and without IMF-supported programs. Instead, we find:

- In 87-90 percent of the examined cases, the impact of IMF-supported programs on gender inequality indicators is not statistically significantly different from the control group that did not adopt an IMF-supported program.
- In the few cases where IMF-supported programs are associated with statistically significant effects on gender inequality, the results suggest both positive and negative effects.

These findings suggest the previous literature's discussion of impacts of IMF-supported programs on gender inequality was likely based on contaminated estimates that conflate the effects of economic crises with effects of IMF-supported programs on women and girls. Our approach disentangles the two and allows us to document that the effects of economic crises alone were the primary drivers of observed changes in gender inequality.

Our results have several important implications. First, they underscore the importance and necessity of employing credible control groups when assessing the impacts of IMF-supported programs on gender inequality. Once proper control groups are specified, the effect of economic crises can be separated from the effect of the program on gender. When we focus only on statistically significant effects of IMF-supported programs on gender inequality, our results caution against generalizations based on individual country experiences or small sample studies. This is because our results document substantial variability in significant outcomes across countries (both in terms of size and sign of the gender impact). Finally, the finding that gender inequality has declined in some cases in the presence of IMF-supported programs indicates that attention to the design of policies can lead to better outcomes.

Introduction

Economic crises impact all segments of society, especially populations living in vulnerable situations which often disproportionately include women. Recovery trajectories with fiscal and monetary consolidations are designed to stabilize the macroeconomic environment to benefit all and improve development prospects.¹ Yet, these consolidations can, depending on the design of specific measures, disproportionately (positively or negatively) impact women and girls.² Some countries that experience economic crises also adopt IMF-supported programs (in the following also short: “programs”) to mitigate crisis impact and aid recovery efforts. Several studies suggest negative effects of IMF-supported programs on gender outcomes.

A key feature of these studies is, however, the absence of credible counterfactuals. Credible counterfactuals are crucial to determining whether observed changes in gender inequality are due to the crises themselves, the economic adjustment made, or conditionality (in situations where there are IMF-supported programs).³ Assessing the impact of IMF-supported programs on gender outcomes thus requires an understanding of how gender inequality would have evolved in crisis countries in the absence of programs. Without proper counterfactuals, studies conflate the general effects of economic crises on gender with the specific effects generated by programs. If effects of economic crises alone are negative on gender inequality, it is likely that studies without proper controls then attribute such negative impacts to conditionality.

As the counterfactual is never observed, Synthetic Control Methods (SCM) emerged as “arguably the most important innovation in the policy evaluation literature in the last 15 years” (Athey and Imbens 2017).⁴ Below we apply SCM to evaluate gender inequality effects in countries that adopted an IMF-supported program. SCM methodology constructs custom-tailored control groups for each crisis country that adopted an IMF-supported program. The quality of the fit of the control group for each program country then provides confidence that crisis and program effects can be isolated separately.

The longest consistent time horizon for data on gender inequality, from 1990-2023, provides for a universe of 480 possible programs. Specifically, we analyze the effects of an IMF-supported program on (a) female labor force participation (b) the ratio of female to male labor force participation, (c) adolescent fertility, (d) maternal mortality, and (e) gender parity indices for primary/secondary/tertiary education in crisis countries. Given the availability of gender and macroeconomic time series, as well as the requirements for SCM, we are able to examine up to 151 programs with proper control groups. Our results reliably establish the impact of programs on gender inequality as they compare gender inequality outcomes in crisis countries *with* programs to those in

¹ For the purpose of this paper, crises are defined as situations in which countries either adopt IMF-supported programs with ex-post conditionality to resolve or prevent economic imbalances, or when countries experience reserve, debt or fiscal difficulties. IMF-supported programs typically aim to prevent or resolve balance of payments issues, or to address protracted balance of payments challenges. While measures designed to improve gender equality have featured in select program cases, improvements of gender outcomes are not direct program objectives.

² OHCHR (2013) points to the impact of economic consolidation measures on health, food, water, work, social security, and education. United Nations (2015) and IMF (2024b) outline that macroeconomic policies in general are rarely gender neutral (Evans and others 2024, Flamini and others 2023). More generally, business cycles and crises tend to impact men and women differently (Gomes 2024, Bluedorn and others 2021, Thioune and others 2024).

³ Under the Fund's Guidelines on Conditionality, conditionality is required to safeguard the Fund's resources. Furthermore, conditionality in Fund arrangements should be parsimonious, within the member's control, and critical for the successful implementation of the Fund-supported program.

⁴ The methodology has been applied to evaluate the impact of IMF-supported programs in the context of GDP growth (see Kuruc 2022; Newiak and Willems 2017).

control groups that experienced similar evolutions of gender inequality and economic conditions before the crisis but that did not adopt programs. By comparing post-crisis gender trajectories in each program country to its own synthetic control group, SCM allows us to disentangle whether observed gender impacts are due to the aftermath of economic crises and/or by programs.

The use of SCM allows us to shine a new light on the substantial literature that has raised concerns that policy reforms associated with conditionality adversely affect women and girls. Some previous studies argued that conditionality in IMF-supported programs negatively impact female education, health, and mortality. For example, Zuckerman (2014) suggests IMF-supported programs “deepened gender inequality and reinforced women’s and men’s unequal rights.” She examined a case study of the Greek sovereign debt crisis which was accompanied by an IMF-supported program. Kamal (2022) finds that “IMF’s orthodox adjustment policies deteriorate the development outcomes of women disproportionately, mainly due to undermining recipient states’ expenditure capacity on female-dominated work and service sectors.” His study is based on 498 IMF-supported programs from 1993-2018 where effects are elicited in regressions that contain either a program dummy or a conditionality dummy.

Table 1 summarizes the literature on the effects of IMF-supported programs on gender and the methodological approaches to counterfactuals. It highlights that most studies employ either no control group at all or use a dummy variable approach (program yes/no) to identify the effects of IMF-supported programs on gender. What problem can arise in program evaluations without proper control groups? When studies employ generic proxies for control groups, such as program dummies, the methodology includes an overwhelming number of countries that did not face similar economic crises as the program country. This implies a substantially greater likelihood of better economic and gender outcomes in the control group that does not experience significant fiscal or monetary consolidations. As a result, the separate effects of crises on gender are incorrectly attributed to programs.

To illustrate the issue, consider a scenario where an economic crisis requires fiscal and monetary tightening to avoid hyperinflation or default, outcomes that would have particularly deleterious effects on the population at large. Crises impact all segments of the economy and society, including women and girls. Corrective measures to resolve crises aim to mitigate the economic impact by restoring macroeconomic stability but may affect different parts of the population disproportionately. When studies examine how IMF-supported programs affect gender inequality without a proper account for the effects of the crisis itself, they mistakenly attribute any negative effects of the crisis on gender inequality to program conditions. Alternatively, consider a scenario, where the effects on gender inequality for *each* IMF-supported program country are evaluated using a custom-tailored control group for that country. The custom-tailored control group did not adopt an IMF-supported program but experienced very similar gender and economic conditions before the onset of the crisis. This approach then allows us to isolate the effect of IMF-supported programs on gender outcomes, without contaminating it with the effects produced by economic crises.

The accuracy of the identified program effects on gender inequality thus depends on the quality of the control group that addresses the counterfactual. In addition, it is desirable that program evaluation includes a systematic analysis across countries and time, not just particular case studies. Our control groups mirror the (possibly nonlinear) gender trajectories in the 4 years prior to the crisis with similar impacts of external debt, government consumption, and foreign exchange reserves.

We find substantial evidence that observed changes in gender inequality are driven by economic crises rather than IMF-supported programs. Across all programs and gender indicators, we find that about 90 percent of IMF-supported programs do not exhibit significant changes in gender inequality due to programs. Interestingly, for the remaining programs with statistically significant results, we find roughly equal amounts of positive and negative impacts on gender inequality. Our findings are robust and consistent across all (i) gender inequality indicators, (ii) years, (iii) countries, and (iv) income levels. The methodology does not allow us to identify how specific IMF conditionality affects gender inequality—we simply determine whether crisis countries with programs experience different degrees of gender inequality compared to the counterfactual.

Table 1. Literature Review on the Impact of IMF-Supported Programs on Gender Inequality
(Including Control Group Methodology)

Study	Gender Indicator	Sample Size	Control Group Methodology
<i>ActionAid (2022)</i>	Public budgets, social spending	Case studies	None
<i>ActionAid (2023)</i>	Health and education expenditures, wage bill etc.	10 countries, case studies	None
<i>Bradshaw others (1993)</i>	Under-five mortality rate	Up to 64 countries, 1987	None
<i>Buchmann (1996)</i>	Female secondary school enrollment, female economic activity, maternal mortality, fertility	58 program countries, 1975-1987.	None
<i>Detraz and Peksen (2016)</i>	Women's economic rights	115 countries, 1981-2004	Dummy for IMF-supported program
<i>Donald and Lusiani (2017)</i>	Female labor force participation	Case studies	None
<i>Forster and others (2020)</i>	Neonatal mortality, health system access	137 countries, 1980-2014	Dummy for IMF-supported program
<i>Forsythe and others (2000)</i>	Gender Development Index, capturing female and male life expectancy, female and male years of schooling, and female and male income	129 countries, 1970-1992	Structural adjustment dummy
<i>Cagatay and Ozler (1995)</i>	Female Labor Force Participation	165 countries, 1985 & 1990	IMF/WB-supported program dummy
<i>Heinzel and others (2024)</i>	Women in ministerial positions	141 countries, 1980-2018	Program dummy
<i>Kamal (2022)</i>	Female unemployment rate, maternal mortality, secondary enrollment of girls, gender inequality index	181 countries, 1993-2018	Dummy for IMF-supported program, number of program conditions dummy
<i>Karamessini and Rubery (2014)</i>	Gender employment gap	Greece, Hungary, Iceland, Ireland, Italy, Portugal, Spain, United Kingdom; 2008-2012	None
<i>Kern, Reinsberg, and Lee (2024)</i>	Gender unemployment gap, female/male labor force participation	128 countries, 1992-2018	Dummy for IMF-supported program
<i>Pandolfelli, Shandra and Tyagi (2014)</i>	Maternal mortality	37 countries, 1990-2005	Dummy for IMF-supported program
<i>Reinsberg and others (2024)</i>	Women's public sector employment share and wage ratio; worries about job	95 countries, 2000-2018	Dummy for IMF-supported program
<i>Shandra, Shandra and London (2010)</i>	Maternal mortality	65 countries, 1990-2005	Structural adjustment dummy
<i>Zuckerman (2014)</i>	Expenditures on education, health, daycare and other social programs	1 country	None

Our results underscore the importance and necessity of employing credible control groups when assessing the impacts of programs on gender inequality. For programs from 1994 to 2022, the data suggest that the vast majority of unusual gender impacts that were observed after economic crises cannot be attributed to programs. This is because even when gender effects are observed, they are overwhelmingly statistically insignificant—indistinguishable from gender effects experienced by the control group. Our findings also highlight that gender effects of programs can be both positive and negative, depending on the individual country's crisis and program experience, although only a small fraction of effects are statistically significant. Even when we focus only on statistically significant outcomes, our results caution against generalizations based on individual country experiences or small-sample studies. This is due to the substantial variability that we document for significant outcomes, both in terms of size and sign of the gender impact gap.

The paper is organized as follows: The next section introduces the methodology and data, followed by an example of a specific program country and its synthetic control group to highlight the mechanics of our approach. The following sections present results for all countries along with robustness. The final section concludes.

IMF-Supported Program Evaluation and Control Group Methodology

Motivation

The credibility of statistical methodologies that employ control groups to proxy counterfactuals hinges on the degree to which control groups mirror the evolution of gender and macroeconomic variables in program countries during the pre-crisis phase. The better the pre-crisis match of gender and economic characteristics between program countries and their custom-tailored counterfactuals, the greater the precision of the estimated gender impact for each program country. Our study is the first to assess the impact of programs on gender using Synthetic Control Group Methodology (SCM), which Athey and Imbens (2017) described as “arguably the most important innovation in the policy evaluation literature in the last 15 years.”

SCM is a method to generate precise counterfactuals for *each* program country. By comparing gender inequality in countries experiencing crises with and without programs, SCM allows us to accurately estimate the economic and statistical significance of “gender impact gaps.” When gender impact gaps have been observed following crises, but the evolution of gender inequality in program countries and control groups is statistically insignificant, it suggests that these gender impacts can be attributed to crises and their aftermaths, not to program effects.

Approaches to counterfactuals include regressions with program dummies, difference-in-difference estimation, propensity score matching, and Synthetic Control Methods (SCM). Among these, only SCM accommodates time-varying matching and effects as part of the methodology. For each program country, SCM constructs a custom-tailored control group consisting of non-program countries whose economic and gender performance closely matches the program country's pre-crisis path. We report the quality of the match for each country below.

The better the program country's and the control group's non-linear data match in the pre-crisis periods, the greater the accuracy of the estimated gender effect that occurs after the program has been adopted. Below, we sketch fundamental differences between the various approaches to control groups, focusing only on those most

relevant to our analysis. Table 1 highlighted that most previous studies used program dummies to elicit effects of conditionality on gender. Counterfactuals based on program dummies do, however, not provide well-tailored control groups for each crisis country. One may even argue that this approach to control groups is quite imprecise not only for the individual program country, but for the average program country. Since most non-program countries do not experience economic crises, the program dummy approach to control groups conflates crisis effects with program effects. In addition, averaging effects across countries is highly problematic when program gender effects may be both positive and negative (as we document later).

Difference-in-Difference (DiD) estimation requires the assumption that program countries and control groups experience parallel trends in pre-crisis gender inequality (see, for instance, Abadie 2005, Angrist and Pischke 2009). Our data reveal, however, that gender inequality trends even among program countries diverge dramatically. This highlights not only that the assumption of parallel trends is violated in our data, but also that it is important to base our evaluation of program effects on gender on the individual country, not on aggregates or averages. Nonlinear DiD can address nonlinear trends, but the approach requires researcher knowledge of the interactions that drive the observed trend variations (Wooldridge 2023). This implies that DiD methodology then essentially relies on researcher-selected control groups, without explicit metric to assess their validity. When DiD methodology and researcher-specified interactions cannot accurately match the counterfactuals' trends to program countries, the accuracy of post-crisis gender impact estimates is compromised.

Matching estimators use observables to correlate gender outcomes in crisis countries with and without programs. Average gender impact gaps then compare averaged gender outcomes in program countries to averaged outcomes of the control group. Kellogg and others (2021) note that the applicability of matching methods is limited when pre-crisis trends and characteristics differ across countries especially due to unobservable factors. This is certainly the case across the 29 time periods and over 150 program cases in our study. Such differences become particularly salient in comparative case studies covering large aggregates, such as states or countries. Averaged program impacts are not representative of the diverse experiences of program countries in our large sample, as we show below. In addition, matching estimators construct counterfactuals by matching covariates or predictors, while we will see below that SCM constructs control groups by directly matching pre-crisis outcomes.

Synthetic Control Method (SCM), Bias Correction, and Inference

The SCM has gained widespread application in empirical research due to the high quality of the control groups being constructed and the interpretable and transparent nature of its approach. Below we sketch the canonical SCM setup in a moderately edited summary of the surveys provided by Wiltshire (2021) and Abadie (2021).⁵ SCM constructs a unique, tailored control group for *each* program crisis country. For any crisis country that received a program (commonly referred to in the literature as an “intervention” or “treatment”), gender inequality is observed for several years before and after program adoption. Below we choose a period of 4 years pre- and post-program.⁶ SCM then constructs a counterfactual, a synthetic control group from a weighted average of

⁵ Synthetic control methods (SCMs) were developed by Abadie and Gardeazabal (2003); Abadie, Diamond, and Hainmueller (2010, 2015). Recent extensions include Cavallo and others (2013); Dube and Zipperer (2015); Acemoglu and others (2016); Kreif and others (2016); Galiani and Quistorff (2017); Abadie and L'Hour (2021); Abadie (2021); Ben-Michael, Feller, and Rothstein (2022); Peri, Rury, and Wiltshire (2022); Powell (2023); and Wiltshire (2021).

⁶ We experimented with longer pre and post program periods; results were qualitatively identical. However, the number of programs that can be examined is substantially reduced.

“donor pool” countries that minimizes the difference in pre-crisis outcomes with the program country. SCM thus accounts for heterogeneous responses for both observed and unobserved factors in the pre-crisis period. Each SCM control group is then constructed to match the observed (nonlinear) pre-crisis trend in gender inequality for each program country while controlling for other country characteristics, specifically reserves coverage (reserves in months of imports) and additional variables relating to debt and fiscal expenditures discussed below. The intuition is that only countries that are alike on both unobservable and observable factors follow a similar pre-crisis trajectory. We report the quality of the pre-crisis match in columns (4) to (7) in Tables A.1.1 to A.7.2.

After establishing an excellent pre-crisis match for each program country and its counterfactual, SCM allows for a comparison between post-crisis gender inequality trajectories in countries with and without programs. Gender impact gaps arise when the impact of a program on gender inequality differs significantly from the control group’s (for instance, via conditionality such as changes in workplace policies, a floor on social protection, or an elimination of fuel subsidies).⁷ SCM provides p-values to assess the statistical significance of post-crisis gender impact gaps.

Formally, with data for $j = 1, 2, \dots, J+1$ countries, we assume country $j = 1$, is the “treated” country that experienced an economic crisis and obtained a program. In our baseline case, we observe countries for nine years, 4 years prior to the program and $T_0 = 5$ is the program year. The post-crisis period lasts 5 years as it includes the crisis year and four subsequent years. To rule out that the program effect on gender inequality is contaminated by previous programs, we examine only cases where countries did not receive a program in the previous 4 years.

The “donor pool” consists of a collection of countries, $j = 2, \dots, J+1$ that did not receive a program in the pre- and post-crisis periods. These requirements, along with the need to balance the panel for each program and donor country, eliminate a substantial number of programs from our sample (see next section on data).

For each country at time, t , we observe an outcome, a gender inequality indicator, Y_{jt} . The specific indicators we examine are discussed in the data section below. We also observe a set of k predictors of the outcome, X_{1j} , $\dots$, X_{kj} . The $k \times 1$ vector X_1 contains predictors for the program country under observation, and the $k \times J$ matrix, $X_0 = [X_2 \dots X_{J+1}]$ collects the values of these predictors for countries in the donor pool. Using SCM terminology, we define Y_{jt} as the potential outcome with $\{N\}$ o intervention and with $\{I\}$ intervention, respectively; in our application, the “intervention” is the adoption of a program. For each period t , we can then estimate the ‘gender gap’, τ , between the program country and its control group

$$\tau_{1t} = Y_{1t}^I - Y_{1t}^N \quad (1)$$

Equation (1) allows for nonlinear evolution of gender inequality and economic conditions in the program country and the control group. Before the program is adopted, the observed gender gap acts as a litmus test for how well the control group matches the program country’s characteristics.

⁷ The assessment of the impact of specific conditionality is outside of the scope of the paper, our goal is to assess the effects of IMF-supported programs in this paper.

It is often difficult to find a well-matching counterfactual based on either a single country or an averaged effect derived from a pool of countries. Instead, SCM constructs synthetic control groups by assigning weights to countries chosen from the donor pool. These weights, represented by a $J \times 1$ vector, $W = (w_2, \dots, w_{J+1})$, form a weighted average to match the characteristics of the program country before the program is adopted. Given these weights, the estimated gender outcomes for the control group are $\hat{Y}_{it}^N$, or

$$\hat{Y}_{it}^N = \sum_{j=2}^{J+1} w_j Y_{jt} . \quad (2)$$

Weights for control group countries are chosen to minimize the differences between the program country and the donor pool in the pre-crisis outcomes. SCM specifies a set of weights $V = (v_2, \dots, v_k)$ that reflect the relative importance assigned to the k predictors to minimize the discrepancy between the program country's predictors, X_1 , and control group's predictors X_0 . W. Abadie and Gardeazabal (2003) choose predictor weights, V , such that the weights of the countries in the control group, $W(V)$, minimize the discrepancy between the outcomes for the IMF-supported program and the control groups outcomes in the pre-crisis period.⁸ This is achieved by minimizing the mean squared prediction error (MSPE)

$$\text{MSPE} = \sum_{t \in T_0} (Y_{1t} - w_2 V Y_{2t} - \dots - w_{j+1} V Y_{j+1t})^2 \quad (3)$$

where w^* indicates the MSPE minimizing weights, and the estimated gender gap in the pre-crisis period, $t < T_0$, is given by

$$\hat{\tau}_{1t} = Y_{1t} - \sum_{j=2}^{J+1} w_j^* Y_{jt} . \quad (4)$$

With the pre-crisis gender gap in hand, it is possible to use equation (4) to obtain the “gender impact gap”, for each program country, $j = 1$, which is simply the estimated gender gap after a program has been adopted, $t \geq T_0$. Here, it is important to recall that the control group matches countries based on the evolution of pre-crisis gender inequality indicators and pre-crisis macroeconomic crisis indicators. To produce relevant counterfactuals, SCM then constructs a synthetic control group for each program country such that the two exhibit similar trajectories of gender equality and macroeconomic difficulties. Only when the control group's trajectories match the program country's can we hope to isolate a gender impact once the program is adopted at T_0 .

At this point, it is useful to summarize the fundamental differences in the construction of counterfactuals for SCM and other approaches. DiD, Matching and Dummy approaches, rely on researcher-specified control groups, typically comprising countries without programs. Researchers often also attempt to refine these control groups by incorporating additional criteria, such as selecting countries 'in crisis,' those with 'substantial' fiscal or trade deficits, or those in 'geographical proximity' to the treatment country. However, these methods do not explicitly evaluate how well the counterfactual aligns with any program country's pre-crisis experience. Instead, these approaches assume an adequate fit or at least the best possible fit based on researcher-selected

⁸ Abadie (2021) notes that the minimization of equation (3) subject to the weight constraints may select a solution with countries that are very different than the program country in the space of the predictors, even when an alternative solution exists based only on countries with predictor values similar to those of the program country. This may, in turn, lead to interpolation biases that remain unchecked under the illusion of excellent pre-crisis fit. Notice, however, that such excellent fits are indicative of the possibility of infinite or many solutions to the minimization problem. Whenever program countries under observation are indicated to produce a non-unique weighting vector for the synthetic control group, we exclude the program from our study.

observables. But when counterfactuals do not match the program country's actual pre-crisis trajectory, they are unreliable for assessing the program's impact in the post-program period.

In contrast, the SCM employs a data-driven approach to matching the pre-crisis trajectory of each program country with its own counterfactual, the synthetic control group. The selection of the synthetic control group is not based on researchers' subjective assessment of trajectory similarities, presumed matches due to crisis status or any other observables. Rather, it relies on actual concordance in the trajectories of the variables of interest matching thus observables and unobservables. The quality of the match is then considered indicative of the counterfactual's reliability and, by extension, the credibility of the estimated performance gap in the post-crisis period. This fundamental distinction in methodologies highlights the SCM's potential to provide more robust and empirically grounded counterfactuals for analyzing the impacts of programs.

Bias in the estimated gender impact gap, (4), may arise from discrepancies between the program country and the synthetic control group predictor values that can then produce sizable discrepancies in the observed outcome variables before the program is adopted. The estimate of the post-crisis gender impact gap is then contaminated by the discrepancies of the pre-crisis period. Simply said, if the control group does not match the country in the pre-crisis period, it is not a good counterfactual, and all deviations between the counterfactual and the program country in the pre-crisis period then contaminate the estimate of the impact in the post program adoption period. SCM allows for bias correction analogous to methods proposed for matching estimators (see Abadie and Imbens 2011). Note that bias correction may not necessarily improve the pre-crisis fit of the outcome variable; but it does address discrepancies in the linear combinations of predictors used to establish the outcome variable for program countries and controls.

SCM bias-corrected gender impact gaps use regression-based bias adjustments. This correction also produces bias-corrected p-values to assess the significance of the observed gender impact gap (see Abadie, Diamond, and Hainmueller 2015). For each program country, i , the vector $\hat{W}^i$ is obtained from the estimation on the uncorrected outcomes, Y_{it} , to minimize the root mean square predication error, R ,

$$R = \left(\frac{1}{T_0} \sum_{t=1}^{T_0} (Y_{1t} - \sum_{j=2}^{J+1} w_{1j}^* Y_{jt})^2 \right)^{1/2}.$$

Let $\hat{\mu}_{0t}(x)$ be a sample regression function predicting Y_{1t} given $X_1 = x$, estimated by first regressing Y_t on the predictor variables for donor pool countries. Then $\tilde{Y}_{1t} = Y_{1t} - \hat{\mu}_{0t}^1(X_1)$ and $\tilde{Y}_{1t}^N = \sum_{j=2}^{J+1} \hat{w}_j (Y_{1t} - \hat{\mu}_{0t}(X_1))$ can be calculated using as the bias-corrected gender impact gap, $\hat{\tau}_{BC1t} = \tilde{Y}_{1t} - \tilde{Y}_{1t}^N$, or

$$\hat{\tau}_{BC1t} = (Y_{1t} - \sum_{j=2}^{J+1} w_{1j}^* Y_{jt}) - \sum_{j=2}^{J+1} w_{1j}^* (\hat{\mu}_{0t}^1(x_1) - \hat{\mu}_{0t}^1(x_j)), \quad (4')$$

The first term on the right-hand side of (4') is the synthetic control estimator in (4), and the second term is a regression adjustment correcting for discrepancies between the predictor values for the program country and the predictor values that contribute to the synthetic control. We can also interpret (4') as a synthetic control estimator applied to regression residuals. Equation (4') nests the "classic" synthetic control estimator without bias correction in (4) when the estimated bias from predictor variable discrepancies is zero. Note that bias correction affects only the accuracy with which the synthetic control matches a program country's pre crisis trajectory.

Our goal is not only to quantify whether a gender impact gap exists, but also to identify whether gaps are statistically significant. Large-sample inference is generally inappropriate for SCM since donor pools are usually small. Following Wiltshire (2021) and Abadie, Diamond, and Hainmueller (2010, 2015), we employ a SCM inferential procedure based on permutations or “in-space placebo tests.” In these tests, treatment status is permuted across pre-crisis periods for *untreated* countries in the donor pool. Each donor pool country, $j \neq 1$, is then assigned an “as-if treatment” status, and SCM is then applied to this country to produce an “as-if treated” or in-space placebo gender impact gap ($4'$). This as-if treatment permutation across all untreated countries yields a permutation distribution of bias-corrected, gender impact gap estimates for placebos.

As in traditional statistical inference, a quantitative comparison between the distribution of placebo effects and the program effect is operationalized using p-values. These p-values, based on classical randomization inference, are constructed by calculating the fraction of placebo gaps that are greater than or equal to the effect estimated for the program country (Rosenbaum 2005). The gender impact gap observed for the program country is considered significantly different when its magnitude is extreme relative to the permutation distribution. Operationally, p-values are based on the ratio of the pre- and post-crisis root mean square prediction errors

$$r_j = \frac{R_j(T_0+1, T)}{R_j(1, T_0)} \quad (5)$$

This ratio measures the quality of the synthetic control fit in the pre- and post-treatment periods. The p-value for the inferential procedure is then based on the permutation distribution

$$p = \frac{1}{j+1} \sum_{j=1}^{j+1} I_+(r_j - r_1), \quad (6)$$

where I_+ is an indicator function that returns one for nonnegative arguments and zero otherwise. Confidence intervals are constructed by test inversion as described by Firpo and Possebom (2018).⁹

Data

Data are primarily from the World Bank’s World Development Indicator database (WDI 2024). Appendix B provides a detailed description of each variable, along with their associated WDI codes. Data are spanning from 1990 to 2023, the most recent year available at the time of writing. Given the methodological constraints of SCM, this allows us to examine programs from 1994-2022 and to report gender effects from 1994 to 2023. The list of programs is derived from the IMF’s commitment database¹⁰, with cross checks to the IMF’s MONA database (IMF 2024c).¹¹ One could argue that only structural adjustment programs should be included since much of the previous literature focused on these types of IMF and World Bank programs and their effects on

⁹ In practice, our estimation is operationalized using Wiltshire’s (2021) stata package that leverages the synthetic control method stata package provided by Abadie, Diamond, and Hainmueller (2010).

¹⁰ <https://www.imf.org/external/np/fin/tad/query.aspx>

¹¹ We cast the widest possible net and exclude only programs without ex-post conditionality (Rapid Credit Facility (RCF), Rapid Financing Instrument (RFI), and Flexible Credit Lines (FCL)). Arguments can certainly be made to examine only banking, financial, or balance of payment crises. As we show below, however, the type of economic difficulty is not pertinent to our analysis. One may also suspect that different sub-periods may matter for analysis. After all, IMF-supported programs evolved with the introduction of Conditionality Guidelines (in 2002), and policy reviews of program design and conditionality. One might expect that such developments impact not only program design but also program impact on gender inequality. We do not examine this in robustness; the results section explains why this is not necessary.

gender. However, other IMF-supported program types may also impact gender inequality, and they certainly have been associated with gender impacts in previous studies. At the outset of our study, we remained agnostic about which program might produce a gender impact—hence we include all programs with ex-post conditionality. As we demonstrate below, the program-type does not affect our conclusions.

From the global dataset, we created an individual dataset for each program country. Our analysis includes seven different indicators of gender inequality to capture gender inequality of outcomes and opportunity: the ratio of female to male labor force participation, female labor force participation, adolescent fertility, maternal mortality, and gender gaps in primary, secondary and tertiary education. We also considered using composite gender indices; however, most indices (i) are already based on our set of gender indicators, (ii) are not available for a substantial part of the time period, or (iii) are missing indicators necessary to reconstruct the index for a substantial part of the time period covered in our study.¹²

Data availability and study design significantly influence the size of our sample. We have two main criteria for inclusion: (1) for program countries to be included, a country must not have received another program in the 4 years prior to the current program. This ensures that during the pretreatment stage, when we select a control group, the outcome variable is not influenced by any other conditionality. (2) For each year t , we create a donor pool of countries from which we select a control group as described in the methodology section. This donor pool consists of all countries that did not receive a program during the entire eight-year period (four years before and four years after the crisis year t). Additionally, we exclude high-income countries (as classified by the World Bank) from the donor pool when the crisis country is not a high-income country. SCM also require a balanced panel for all included countries. These data and design requirements reduce our sample from 480 program countries to at most 151 programs (for the case of female labor force participation).

In our baseline analysis, we examine the largest number of programs to be included in the analysis. To achieve this, we choose as predictors the lagged gender inequality indicator as well as reserves coverage (reserves in months of imports) as the crisis indicator. For robustness, we later extend the set of predictors to include not only the lagged gender indicator and reserve coverage, but also government consumption, and reserves in percent of external debt. This robustness check yields a smaller sample but qualitatively similar results.

The Mechanics of SCM: An Application to a Specific IMF-Supported Program

It is helpful to illustrate the mechanics of SCM with a step-by-step example relevant to our study. To do so, we apply SCM to a single example, the Dominican Republic's 2003 program with the IMF, and to a single indicator of gender inequality. It is helpful to provide visuals that highlight the SCM approach as well as the associated changes in female labor force participation in the program country and in the control group over time. The specific estimates are provided in row 53 of Table A.3.1.

In 2003, the Dominican Republic negotiated a \$600 million "Stand-By Arrangement" with the IMF, which resulted in the immediate disbursement of \$120 million. The arrangement followed a severe financial crisis that

¹² For robustness, we examined results using the gender inequality index (1990-2013), covering programs from 1994 to 2009. We found qualitatively identical results.

had developed over the previous years (see IMF 2003). The crisis was marked by a deterioration in public finances (doubling the public debt-to-GDP ratio), a contraction of GDP growth (from 5.9 percent in 1999 to -1.3 percent in 2003), and an 80 percent currency depreciation of the Dominican Peso (from DOP 15.83 per USD in 1999 to DOP 29.38 per USD in 2003), alongside dramatic capital outflows—the central bank lost half of its foreign currency reserves.

The program required a fiscal consolidation through “a raise [in] the fiscal primary surplus over the next three years to a level that would allow a gradual reduction in the public debt ratio.” This was to be achieved through “a broader reform of the tax system and spending.” In addition, the program necessitated monetary consolidation, so that “monetary restraint will help contain pressures on the currency and inflation.” Spending floors were also included, with the government “making additional efforts to reduce poverty, with improvements in the efficiency and targeting of social programs. They have sought to avoid cuts in social programs.” (IMF 2003).

This case is representative of crises faced by countries in our sample that adopted programs.¹³ The core elements of the recovery plan, fiscal and monetary consolidations, and the inclusion of social spending floors, are common measures in post-crisis recovery economics aimed at curbing inflation and controlling government debt, while avoiding adverse impacts on social outcomes. In this context, we examine whether the crisis or the program exerted a significant impact on gender outcomes.

Figure 1 draws female labor force participation rates in the Dominican Republic (bold) and its synthetic control group (dashed) selected from 39 donor pool countries—those countries that featured similar income classifications and a balanced panel for all variables across the SCM period of investigation. SCM selects a subset of countries from the donor pool, to construct a “Synthetic Dominican Republic” by minimizing the discrepancy between the Dominican Republic’s outcomes and the control groups outcomes in the pre-crisis period, as laid out in equation (3) earlier. In the case of the Dominican Republic’s program with the IMF, the SCM assigns four countries the following weights: Mauritius (0.591), Belize (0.298), Saint Vincent and the Grenadines (0.097), and Algeria (0.014).

Note that neither of the countries that comprise the synthetic control actually experienced a “crisis” as measured by the Reinhart and Rogoff (2009) updated crisis indicator dataset that was updated by Laeven and Valencia (2018). The synthetic control did produce some rule-of-thumb crisis trigger, however, with reserves that at times fell below 2 months of imports. As the topic of our paper and the variable of interest is gender inequality, the primary interest of SCM is to match countries as closely as possible on gender indicators to allow for the most accurate estimation of the subsequent impact of a program on gender. In addition, SCM allows for attempts to match based on other country characteristics as they relate to gender. In our baseline case, we use reserves in months of imports. This is to maintain the largest possible sample, but we extend the specification of characteristics in our robustness exercise to include external debt as well as government expenditures. This assures that, within the constraint of matching the nonlinear gender trajectory of the Dominican Republic, we choose countries that have very similar economic characteristics. We cannot match perfectly on all dimensions, and some matches for some countries are better than others. In the case of the Dominican Republic, the monthly reserves of the synthetic control group fall below 2 months of imports in 1999

¹³ Our sample of programs consists of roughly equal share of programs supported through the General Resource Account (GRA) and Poverty Reduction and Growth Trust (PRGT), broadly in line with the overall sample of programs.

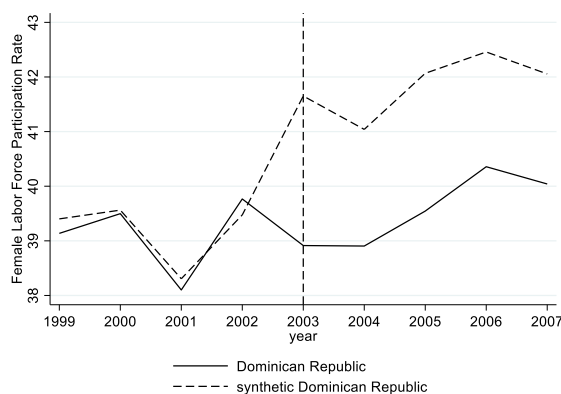
and about 3 months from 2000–2003, falling to below 3 months after 2005. Such balance of payments issues are similar to the ones observed in the Dominican Republic which struggled with reserves below 2 months over much of the event horizon. The tradeoff is that the closer the countries match in terms of economic crisis, the noisier the match is in terms of gender—and vice versa.¹⁴

In our baseline case, we include lagged female labor force participation and reserve coverage (reserves in months of imports) into the set of predictors. The pre-program match in Figure 1 is already remarkable and illustrates how well the synthetic control fits the (nonlinear) evolution of female labor force participation in the Dominican Republic in the pre-crisis period. This speaks to the quality of the control for the counterfactual that we also observe in similar plots for other countries.

While the synthetic control's pre-IMF-program female labor force participation is already an excellent match of the nonlinear evolution in the Dominican Republic, differences in the pre-crisis data affect the estimated post-crisis gap. The earlier-mentioned bias correction procedure improves the pre-crisis match further as shown in Figure 2 and thus increases confidence in the accuracy of the estimated post-crisis gender impact gap. To achieve bias correction, we normalize the observations by adjusting each unit and its donor pool to a reference point in the final pre-treatment period. This ensures that all treatment effects are measured as deviations from this common baseline to standardize gender effects which also renders them comparable across countries. Tables A.1.1 to A.7.2 in the appendix report all estimates for the bias-corrected pre-crisis periods.

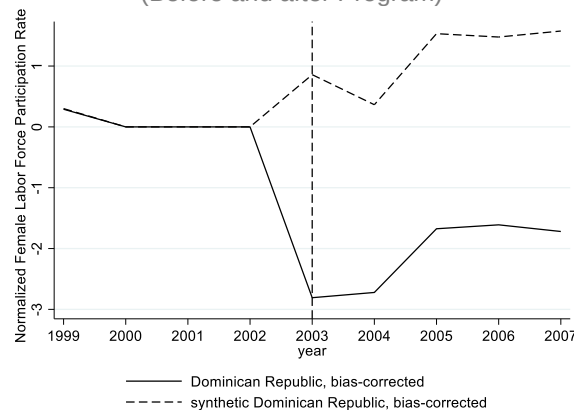
Figure 2 shows the normalized and bias-corrected female labor force participation for the Dominican Republic and its synthetic control group. Now the match between the Dominican Republic and its control group is nearly perfect in the pre-crisis period (1999–2002) which is the basis for the estimated gender effect and for inference. The figure indicates near zero differences as in the case for female labor force

Figure 1. Female Labor Force Participation Rate: Dominican Republic and its Control Group (Percent, Before and after Program)



Source: ILO and authors' estimates.

Figure 2. Female Labor Force Participation Rate: Dominican Republic and Control Group, Normalized and Bias-Corrected Data (Before and after Program)



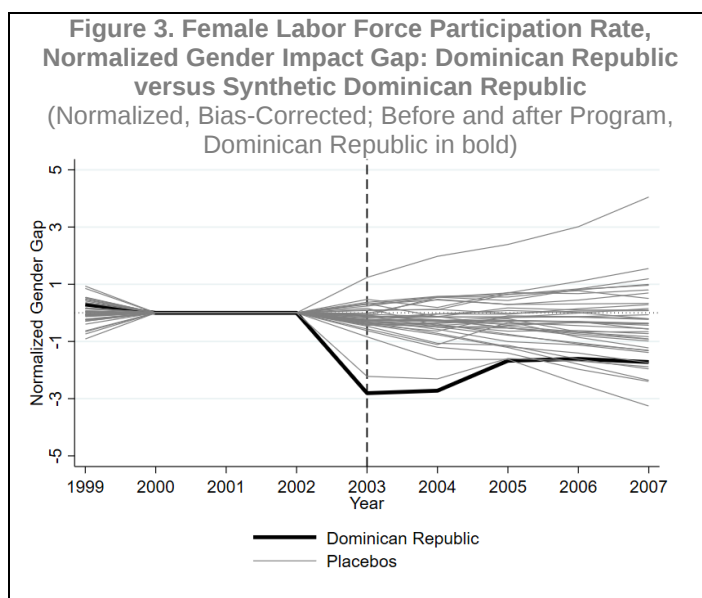
Source: ILO and authors' estimates.

¹⁴ Kuruc (2018) examines the effects of IMF-supported programs on GDP growth in an event study setup. He admits only “crisis” countries to the donor group from which the control group is chosen. For 2003, there are only 3 countries that had a crisis but no IMF-supported program, rendering SCM impossible.

participation in the Dominican Republic. Similar accuracy in the construction of the counterfactuals can be observed for most countries as shown in Tables A.1.1 to A.7.2. This accuracy is a testament to the quality of the SCMs counterfactual for all program countries under investigation.

Figure 3 shows the bias-corrected “gender impact gap” from (6') for the Dominican Republic as a solid black line while the light gray gender gaps are the as-if treated placebo permutations needed to calculate statistical significance. Visual inspection immediately shows that the Dominican Republic’s experience was unusual over the entire sample of countries that did not have an IMF program. It is thus no surprise that Table A.3.1 row 53 indicates the gender impact gap is statistically significant at the 5 percent level for all post-crisis years.¹⁵

Notice that, in current example, the observed effect of the program on gender is negative, even though female labor force participation increased over the life of the program in the Dominican Republic following its initial collapse.¹⁶ This is because the recovery in female labor force participation in the Dominican Republic was not as pronounced as the improvements experienced by the countries without IMF-supported programs that comprise the synthetic control group. This insight emphasizes the critical importance of credible control groups when evaluating the impact of programs on gender. The point is not only to identify a direct positive or negative gender effect in program countries; rather, the analysis must compare the evolution of gender inequality after program adoption to that of the control group. Only this comparative approach provides an accurate assessment of the program impact on gender vs a crisis impact on gender.



The Impact of IMF-Supported Programs on Seven Gender Inequality Indicators

Below, we present the SCM estimates of the gender impact gap between program countries and their synthetic control groups. As illustrated in the example of the Dominican Republic in the previous section, this impact gap may be positive or negative, and the sign of the impact may not necessarily align with the absolute level effect reported for each gender inequality measure. This is because the goal of the paper is to isolate the gender

¹⁵ Other than for the labor market, gender inequality indicators for the Dominican Republic do not show statistically significant effects after the country adopted an IMF-supported program. This highlights the importance of examining several indicators, and the focus on raw gender indicators rather than indices when gender inequality is discussed.

¹⁶ We observe an excellent match between Dominican Republic and synthetic Dominican Republic in the pre-crisis period. While the main difference to the control group arises in the year of program approval, note that the labor force participation rate does not recover to the level observed in the control group (no catch-up effect within the four years after program approval).

effects due to the aftermath of economic crises from the program effects. Below we provide estimates of the economic and statistical significance of the net effect of program conditionality on gender inequality outcomes.

We chose seven prominent gender inequality indicators that have been used extensively in the literature and that are common ingredients in the various gender indices that have been constructed over various time periods by different authors and organizations.¹⁷ These indicators are the adolescent fertility rate, the ratio of female to male labor force participation, female labor force participation rate, maternal mortality rate, primary enrollment gender parity index (GPI; ratio of the female to male net enrollment rate for primary enrollment), the secondary enrollment GPI, and the tertiary enrollment GPI. Predictors for these indicators that are used to establish the control groups include lagged values of the indicator and reserve coverage (reserves in months of imports) in our base case. In a more extensive robustness analysis, we also include government consumption, and external debt. However, the additional data requirements of the robustness section reduce the number of programs we can include because either program countries or donor pools lack data.¹⁸

Table 2 summarizes the results for all our gender inequality indicators for our baseline and the robustness cases. The table is based on the individual tables for all countries' gender indicators in Appendix A. Table 2 focuses only on the summary results for each gender inequality indicator. It highlights positive and negative effects of programs as well as the statistical significance of the effects. The findings are both striking and remarkably consistent across different gender indicators:

First, the most important finding is that programs do not exert a significant impact on gender for the vast majority of countries. About 87 to 90 percent of programs show a statistically *insignificant* evolution of the gender impact gap. This result suggests that most positive or negative impacts on gender are properly attributed to post-economic crisis recovery effects, not programs or conditionality.

Second, among the about 10 to 13 percent statistically significant results, gender effects are both positive and negative. This implies that when significant IMF gender impacts are indeed observed, there is no systematic impact. Note also that if significant, effects are not surpassing the 5 percent significance threshold—and no program or time period is statistically significant at the 1 percent level.

The overwhelming evidence, both in the benchmark and in the robustness case, thus does not corroborate previous findings, based on less precise (or no) counterfactuals, which implied negative impacts of IMF-supported programs. The results also do not support the hypothesis that program funding softens economic adjustments to produce better gender outcomes than the control group. Since programs cannot be shown to be a decisive influence on gender outcomes, it is implied that, if unusual gender outcomes are observed in the post crisis period, they can be attributed to crisis recovery economics not to conditionality. In essence, our

¹⁷ See UNDP's GDI and GII, the Global Gender Gap Index (GGGI) of the World Economic Forum (WEF) (WEF 2024), the Social Institutions and Gender Index (SIGI) of the Organization for Economic Cooperation and Development (OECD) (OECD 2014), the Women's Economic Opportunity Index (WEOI) of the Economist Intelligence Unit (EIU) (EIU 2010), the Gender Equity Index (GEI) (Social Watch 2012), and the Gender Gap Measure (GGM) index (Klasen and Schüler 2011) and the IMF's Gender Inequality Index (Stotsky and others 2016).

¹⁸ Note that the data constraints in the robustness section may reduce the size of the donor pool, which may force SCM to choose slightly different synthetic control groups for a given program country. Differences in results to our benchmark are thus potentially due to a) additional controls, and b) smaller donor pools.

results suggest that programs had neither the detrimental effects feared by critics, nor potentially beneficial effects in terms of gender outcomes.

Third, the individual Tables underlying Table 2 provided in Appendix A indicate the match's quality in the nonlinear pre-crisis gender trajectories between each program country and its individual control group. After bias correction, we observe no deviation in periods t-3 to t-1 that exceed 0.00. This indicates the quality of the match for the control group and the accuracy of the estimated gender impact gap. Table 2, together with the individual Tables in Appendix A, also highlights that neither the quality of the match, nor the results change when we add additional economic indicators as predictors. This is the case even though the sample sizes decline substantially as we add additional demands on the balanced panel with the introduction of additional economic crisis indicators.

Table 2. Gender Effects of IMF-Supported Programs: Summary of Individual Country Results
(IMF-Supported Programs 1990-2023)

	Economic Predictors Used to Match Control Groups							
	Reserve Coverage Only				Reserve Coverage, Gov't Consumption, Reserves as Percent of External Debt			
	Programs	Positive Significant	Negative Significant	Not Significant	Programs	Positive Significant	Negative Significant	Not Significant
Adolescent Fertility Rate (-)	149	10	5	134 (90%)	110	5	5	100 (91%)
Female/Male Labor Force Participation (+)	142	8	9	125 (88%)	94	3	6	85 (90%)
Female Labor Force Participation (+)	151	10	13	128 (85%)	100	5	7	88 (88%)
Maternal Mortality Rate (-)	91	5	6	80 (88%)	63	4	2	57 (90%)
Primary Enrollment GPI (+)	65	2	7	56 (86%)	34	1	4	29 (85%)
Secondary Enrollment GPI (+)	27	6	3	18 (67%)	13	1	1	11 (85%)
Tertiary Enrollment GPI (+)	28	0	1	27 (96%)	19	0	1	18 (95%)
Sum	653	41 (6%)	44 (7%)	568 (87%)	433	19 (4%)	26 (4%)	388 (90%)

Notes: GPI = Gender Parity Index (ratio of number of girls to number of boys enrolled). The maternal mortality rate is the number of deaths per 100,000 live births caused by pregnancy or termination. The adolescent fertility rate is the number of births per 1,000 women aged 15–19 years. Significant gender impact gaps are indicated in the table when at least 1 of the 4 post-program years shows a significant effect at the 10 percent level. Sign directions are determined by the last significant effect in the sequence, from t to t+4, with priority given to the latest horizon (t+4). If no significant effects are found, the classification is 'not significant,' which applies to most cases. (+) next to the indicators denote that a positive significant impact means improved gender outcomes, while (-) indicates that a negative significant effect is equivalent to improved gender outcomes.

Fourth, we do not find evidence that programs produced much better gender outcomes post-1999, when social spending floors became standard, particularly in programs under the Poverty Reduction and Growth Trust. This may be because such social spending floors were generally not designed with a particular gender lens.¹⁹ Unfortunately, programs after 2022, when the IMF's Board approved the institution's first strategy to

¹⁹ The guidance note on social spending (IMF 2024a) now includes considerations of a gender dimension in social spending.

mainstream gender into its core work (IMF 2022), could not be included in the universe of program cases we could examine for a period of four years after program approval.

Fifth, Figures 4.a to 4.g visually summarize all individual results from Annex Tables A.1.1 – A.7.2. For our baseline case, these figures plot the pre-crisis gender gaps for each country (period t-4 to t). This highlights the uniformly high quality of the match between the program country and its control group before the program is adopted. The same figures also plot the estimated post-crisis gender impact gaps for each country (in light gray) to highlight the diversity of positive and negative gap results that are documented in Tables A.1.1 – A.7.2. As discussed above, about 90 percent of these plotted gender impact gaps are statistically insignificant.

Figures 4.a to 4.g also include a bold line, where we use meta-analysis methodology to produce a single aggregate effect from all the individual program gender effects (in light gray). The aggregation of the individual countries' experiences is a weighted average, where weights are determined by the inverse-variance of each country's estimate. Perhaps not surprising, the aggregated effect for the entire sample is essentially zero for all gender indicators. This is because the aggregation averages positive and negative effects, most which are insignificant. Not only do we find that the aggregate effect of all programs on gender is near zero for all gender indicators, but inspecting the variance of the aggregated effect, we find that it is not statistically significant at the 90(!) percent level.

The results in Figures 4.a to 4.g are perhaps most comparable to the approach in the previous literature where authors examined a pool of program countries using a pool of countries without programs as a control group in event studies. The event study approach also produces one single aggregated effect for all program countries. The key difference is that our aggregated common effect is based on each individual program country's with individually matched control group. In event studies, all program countries have the same control group.

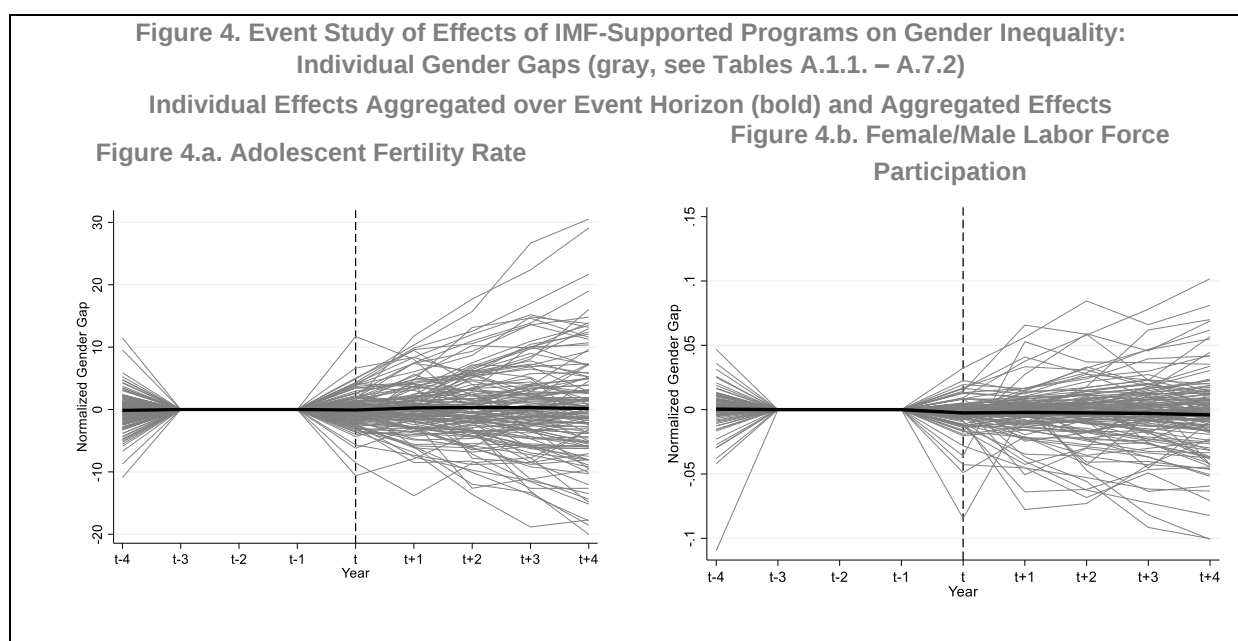
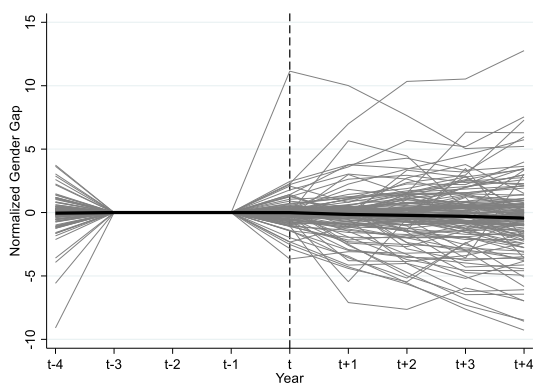
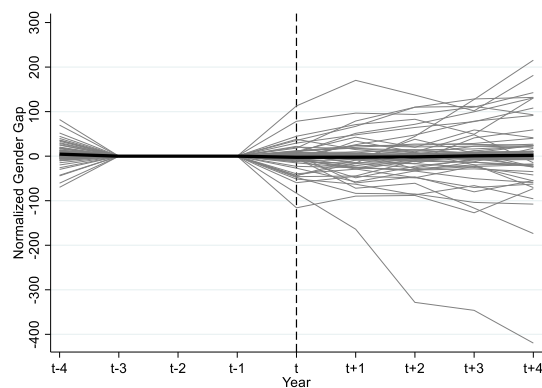
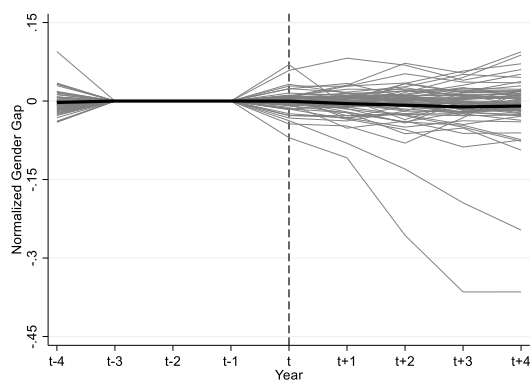
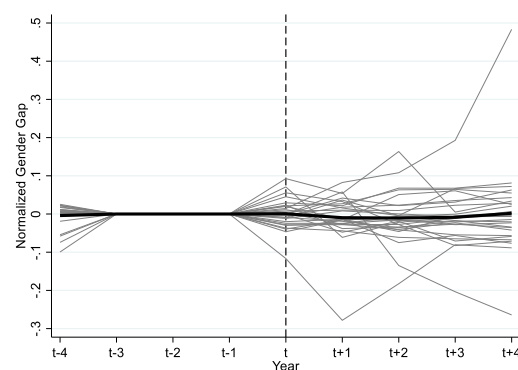
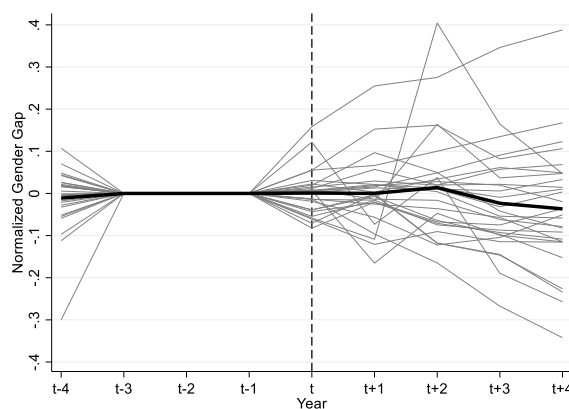


Figure 4. Event Study of Effects of IMF-Supported Programs on Gender Inequality (continued)**Figure 4.c. Female Labor Force Participation****Figure 4.d. Maternal Mortality Rate****Figure 4.e. Primary Enrollment Gender Parity Index****Figure 4.f. Secondary Enrollment Gender Parity Index****Figure 4.g. Tertiary Enrollment Gender Parity Index**

Source: authors' estimates.

Since our individual effect findings are so decisive (in terms of sign, size, and significance), it is no surprise that our individual effect findings translate directly to the common effect. Once we specified proper control groups for each program country from 1994-2022, the common effect of programs on gender is essentially zero. Using the variance of the common effect (the inverse of the sum of the weights), it is no surprise that the effects are not statistically significant. This implies that, over the entire sample of IMF-supported program countries, observed changes in gender inequality are indistinguishable from those experienced by the control groups which did not adopt a program but that did experience a similar evolution in gender and economic variables in the four years prior to the crisis.

In summary, our results do not provide statistical support that IMF-supported programs had a systematic effect on key gender indicators since 1994. This contrasts with critics' findings of negative impacts, based on smaller studies with lower quality control groups. It also contrasts with suggestions that financial program support provides fiscal space to soften the economic consolidations that give rise to adverse gender outcomes.

Conclusion

In this paper, we seek to isolate the effects of IMF-supported programs on gender inequality. To do so, we show that it is crucial to disentangle two distinct factors that can influence gender indicators: first, the economic crisis and the policy response to it, and second the impact of IMF-supported programs. Properly separating these two effects requires a methodology that provides a tailored control group for each program country. Only then can we accurately examine the counterfactual: how would the country's gender indicator have evolved with economic crisis but without a program. We show that, in the previous literature, counterfactuals were either missing entirely or specified with great imprecision, which suggests their findings conflated effects on gender inequality created by economic crises with those produced by IMF-supported programs.

We examine over 150 programs from 1994 to 2022 using Synthetic Control Methods to construct credible control groups. Each control group is individually tailored to each individual IMF-supported program for an optimal match. Table 2 and summary Figures 4.a to 4.g highlight the quality of the match between each program country's pre-crisis gender indicator and economic trends with its control group. Examining seven different gender inequality indicators, we find about 90 percent of program countries do not exhibit gender effects that are significantly different from those observed by the control group. Among the few programs that do exhibit statistically significant effects on gender inequality, there are both negative and positive effects.

These results suggest that much of the previous literature's discussion of negative impacts of programs on gender is based on estimates or approaches that conflate program effects and economic crisis effects. We find overwhelming evidence that post-crisis economic contractions, rather than programs, are the primary drivers of observed gender disparities. The simple presence of an IMF-supported program may thus be associated with (negative) changes in gender inequality, but our results show that these changes in gender inequality are not produced by the program, since the control group produced similar effects.

The recent IMF strategies on social spending (IMF 2019) and on mainstreaming gender into the IMF's core operations (IMF 2022) are designed to mitigate potential adverse effects on vulnerable populations. Unfortunately, these IMF policies are too recent to be examined for effects in our study, due to data constraints. In addition, the mainstreaming of gender into IMF operations has so far deliberately taken a cautious approach of integrating gender into programs. Yet, the finding that gender inequality has declined in some cases in the presence of IMF-supported programs indicates that attention to the design of policies can lead to better outcomes.

Annex A. Country-by-Country Results: Effects of IMF-Supported Programs on Gender Inequality

Table A.1.1: Effects of IMF-Supported Programs on Gender Inequality: Adolescent Fertility Rate

A positive gender impact gap implies a higher adolescent fertility rate (births per 1,000 women ages 15-19) in program countries compared to the control group.

Synthetic Control Predictors: Adolescent Fertility (lagged), Reserve Coverage (lagged).

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Bolivia	1994	2.16	0.00	0.00	0.00	0.08	1.52	6.68	9.72	10.69
2	Central African Republic	1994	3.46	0.00	0.00	0.00	-1.16	-0.46	1.10	3.11	5.00
3	Chad	1994	9.56	0.00	0.00	0.00	1.46	11.78	17.71	22.37	29.10
4	Malawi	1994	-3.86	0.00	0.00	0.00	4.88	10.33	15.70	26.66	30.53
5	Sierra Leone	1994	0.19	0.00	0.00	0.00	2.22*	0.51	5.83	10.46	12.08
6	Turkey	1994	-4.72	0.00	0.00	0.00	3.91	9.60	10.56	13.57	14.81
7	Uganda	1994	1.97	0.00	0.00	0.00	-2.07	4.76	13.14	14.65	11.59
8	Ghana	1995	-2.09	0.00	0.00	0.00	2.05	1.46	6.94	10.03	12.42
9	Haiti	1995	-2.12	0.00	0.00	0.00	-0.68	3.31	7.51	10.93	13.47
10	Mexico	1995	0.37	0.00	0.00	0.00	-1.80	-0.66	-1.50	-2.33	-2.81
11	Djibouti	1996	-0.72	0.00	0.00	0.00	0.42	-0.25	-1.27	-0.41	0.25
12	Madagascar	1996	-1.71	0.00	0.00	0.00	1.19	0.16	-0.65	-0.73	-5.05
13	Mozambique	1996	-6.70	0.00	0.00	0.00	6.63	8.35	12.03	15.19	13.17
14	Tanzania	1996	1.00	0.00	0.00	0.00	1.16	3.73	2.11	2.55	3.08
15	Venezuela	1996	-0.78	0.00	0.00	0.00	3.87*	6.06*	8.68*	14.86*	13.76*
16	Yemen Arab Republic	1996	-8.73	0.00	0.00	0.00	-1.90	1.01	-2.23	-2.01	-2.12
17	Guinea	1997	-0.45	0.00	0.00	0.00	-2.89*	-8.52**	-8.27**	-12.64**	-12.63*
18	Indonesia	1997	-0.24	0.00	0.00	0.00	0.37	-0.03	-0.63	-1.32	-1.45
19	Korea	1997	0.34	0.00	0.00	0.00	-0.46	-1.03	-1.07	-1.77	-2.24
20	Thailand	1997	-1.27	0.00	0.00	0.00	-1.55	0.83	-3.34	-11.16	-9.65
21	Albania	1998	-3.26	0.00	0.00	0.00	-0.74	-1.35	-2.05	-7.82	-3.22
22	Brazil	1998	2.11	0.00	0.00	0.00	-0.13	-1.15	-1.04	-0.28	-2.26
23	Cape Verde	1998	4.80	0.00	0.00	0.00	0.14	-1.74	-4.18	-6.06	-5.76
24	Gambia	1998	-3.29	0.00	0.00	0.00	3.45	4.08	1.31	3.70	2.53
25	Rwanda	1998	-2.31	0.00	0.00	0.00	1.19	1.32	3.21	5.74	5.95
26	Zimbabwe	1998	2.26	0.00	0.00	0.00	0.23	0.80	0.86	3.32	3.93
27	Cambodia	1999	11.47	0.00	0.00	0.00	1.08	2.34	7.18	6.83	2.86
28	Honduras	1999	-0.96	0.00	0.00	0.00	-2.17	-3.78	-4.39	-6.26	-7.51
29	Turkey	1999	-1.30	0.00	0.00	0.00	-0.20	-2.44	-0.90	-4.35	-6.00
30	Chad	2000	-0.16	0.00	0.00	0.00	-2.56**	2.23**	1.59*	3.80*	9.64**
31	Ecuador	2000	1.80	0.00	0.00	0.00	-1.67	-1.59	0.38	2.81	7.32
32	Gabon	2000	-0.86	0.00	0.00	0.00	-2.86	-5.60	-5.47	-5.75	-5.90
33	Lithuania	2000	0.70	0.00	0.00	0.00	0.41	-1.64	0.13	1.57	1.64
34	Malawi	2000	-4.82	0.00	0.00	0.00	-1.92	-2.78	-1.16	2.01	5.23
35	Nigeria	2000	-4.41	0.00	0.00	0.00	-8.56	-13.82	-8.56	-7.71	-14.88
36	Papua New Guinea	2000	-3.81	0.00	0.00	0.00	2.66	4.78	4.76	3.98	2.78
37	Armenia	2001	-1.09	0.00	0.00	0.00	-0.92	3.73	5.44	6.48	5.25
38	Azerbaijan	2001	0.13	0.00	0.00	0.00	1.76*	3.17*	5.50**	8.48**	12.96**
39	Ethiopia	2001	5.89	0.00	0.00	0.00	11.72	8.04	-0.23	-3.03	-9.50
40	Georgia	2001	-1.44	0.00	0.00	0.00	-2.28	1.74	5.22	8.08	16.03
41	Laos	2001	0.44	0.00	0.00	0.00	-1.79	-4.73	-5.98	-1.84	-0.11
42	Lesotho	2001	1.35	0.00	0.00	0.00	1.87	5.34	10.26	9.87	13.91
43	Madagascar	2001	-1.67	0.00	0.00	0.00	1.02	1.94	4.62	2.09	0.31
44	Sierra Leone	2001	-2.18	0.00	0.00	0.00	-0.83	0.36	2.81	-3.41	-5.94
45	Sri Lanka	2001	1.25	0.00	0.00	0.00	0.79	-0.22	-1.64	-3.24	-5.16
46	Vietnam	2001	1.85	0.00	0.00	0.00	-0.26	-0.02	-0.98	0.89	1.76
47	Democratic Republic of Congo	2002	-2.45	0.00	0.00	0.00	1.72	4.87	5.71	7.10	9.35
48	Dominica	2002	-10.91	0.00	0.00	0.00	-5.67	-7.33	-8.83	-8.48	-7.07
49	Guatemala	2002	4.35	0.00	0.00	0.00	-2.36	-7.61	-9.73	-11.44	-13.48
50	Uganda	2002	-3.04	0.00	0.00	0.00	-3.22	-5.81	-6.14	-8.80	-8.04
51	Bangladesh	2003	-5.24	0.00	0.00	0.00	3.43	4.21	-7.83	-8.53	-3.23
52	Bolivia	2003	-0.70	0.00	0.00	0.00	0.67	1.37	1.73	2.61	2.80

53	Dominican Republic	2003	-3.20	0.00	0.00	0.00	1.00	-1.46	-2.09	-3.44	-1.20
54	Nepal	2003	-2.75	0.00	0.00	0.00	4.18	3.65	6.26	5.14	0.73
55	Paraguay	2003	-2.92	0.00	0.00	0.00	1.47	0.87	0.15	0.64	-0.61
56	Burundi	2004	1.29	0.00	0.00	0.00	-2.39	-5.94	-10.09	-13.65	-17.84
57	Congo	2004	-1.55	0.00	0.00	0.00	-0.18	-1.14	1.04	4.09	4.88
58	Honduras	2004	-0.10	0.00	0.00	0.00	0.31	-0.92	-1.20	-3.63*	-5.54*
59	Mozambique	2004	-0.28	0.00	0.00	0.00	-3.42	-4.28	-3.38	-3.76	-1.67
60	Ukraine	2004	2.06	0.00	0.00	0.00	0.40	0.56	0.90	1.89	3.21
61	Zambia	2004	2.26	0.00	0.00	0.00	0.50	-0.79	-1.24	-2.16	-3.63
62	Cameroon	2005	2.34	0.00	0.00	0.00	-4.34	-1.58	-1.42	-3.24	-3.85
63	Chad	2005	5.27	0.00	0.00	0.00	-10.61	-7.89	-3.76	-4.66	-5.16
64	Iraq	2005	1.69	0.00	0.00	0.00	-1.28	1.45	1.06	-1.89	-1.04
65	Malawi	2005	0.60	0.00	0.00	0.00	-2.72	-1.89	-3.56	-8.42	-12.08
66	Sao Tome and Principe	2005	-2.49	0.00	0.00	0.00	-2.80	-4.90	-4.64	-2.65	0.26
67	Central African Republic	2006	1.78	0.00	0.00	0.00	4.34	9.86	12.53	17.01	21.69
68	Grenada	2006	-0.91	0.00	0.00	0.00	0.94	0.29	0.21	-0.93	-1.71
69	Haiti	2006	2.40	0.00	0.00	0.00	0.08	-3.36	-5.81	-7.24	-9.21
70	Madagascar	2006	-0.37	0.00	0.00	0.00	3.95	7.38	6.14	8.99	7.14
71	Moldova	2006	1.56	0.00	0.00	0.00	-0.77	-3.07	-6.44	-5.50	-6.01
72	Sierra Leone	2006	-1.12	0.00	0.00	0.00	3.50	3.06	0.77	0.33	-3.78
73	Gambia	2007	-1.57	0.00	0.00	0.00	-0.07	-1.00	2.45	-0.72	-0.42
74	Guinea	2007	3.45	0.00	0.00	0.00	2.56	7.41	9.32	13.62	11.25
75	Nicaragua	2007	-0.28	0.00	0.00	0.00	-0.94	-1.57	-1.47	-0.06	-1.08
76	Djibouti	2008	0.58	0.00	0.00	0.00	0.36	0.90	1.39	1.02	0.57
77	Hungary	2008	0.78	0.00	0.00	0.00	0.74	0.67	-0.35	-0.25	1.89
78	Iceland	2008	0.34	0.00	0.00	0.00	0.02	0.34	-0.38	-1.64	-2.19
79	Pakistan	2008	1.18	0.00	0.00	0.00	-2.42	-2.94	-3.34	-6.08	-6.22
80	Seychelles	2008	-1.57	0.00	0.00	0.00	-1.06	-1.92	-12.62	-11.06	-14.38
81	Angola	2009	3.03	0.00	0.00	0.00	2.65	-0.02	-7.15	-11.59	-15.15
82	Belarus	2009	-0.84	0.00	0.00	0.00	0.41	-1.40	-1.50	-0.32	-1.43
83	Bosnia and Herzegovina	2009	-0.65	0.00	0.00	0.00	0.21	-0.78	-3.44	-3.12	-5.37
84	Comoros	2009	1.43	0.00	0.00	0.00	-0.99	-1.40	-3.62	-5.88	-8.08
85	Costa Rica	2009	1.69	0.00	0.00	0.00	-2.52	-6.13	-6.84	-5.85	-10.10
86	Cote d'Ivoire	2009	0.86	0.00	0.00	0.00	0.87	5.62*	2.39	-1.12	-1.30
87	Democratic Republic of Congo	2009	-2.86	0.00	0.00	0.00	0.36	1.41	4.00	4.40	1.57
88	El Salvador	2009	0.71	0.00	0.00	0.00	-0.41	0.10	0.87	1.34	1.66
89	Ethiopia	2009	4.24	0.00	0.00	0.00	-6.21	-2.88	-3.01	-13.08	-20.02
90	Ghana	2009	3.13	0.00	0.00	0.00	-1.75	-0.78	0.33	0.44	1.46
91	Guatemala	2009	3.22	0.00	0.00	0.00	0.21	0.39	3.54	5.02	-2.55
92	Maldives	2009	0.25	0.00	0.00	0.00	1.05*	0.40	-1.22	-2.38*	-4.61*
93	Mongolia	2009	-4.28	0.00	0.00	0.00	1.35	1.73	3.20	10.12	7.03
94	Mozambique	2009	0.87	0.00	0.00	0.00	1.81	7.48	10.99	13.83	18.98
95	Romania	2009	-0.63	0.00	0.00	0.00	1.12	-6.04*	-11.97*	-13.32*	-18.55*
96	Sri Lanka	2009	0.79	0.00	0.00	0.00	2.03	3.56	3.00	2.48	0.34
97	Tajikistan	2009	-0.52	0.00	0.00	0.00	2.95**	4.20*	5.57*	2.09*	3.05
98	Tanzania	2009	0.19	0.00	0.00	0.00	1.10**	4.11**	3.02*	1.59*	7.22*
99	Greece	2010	0.22	0.00	0.00	0.00	-0.12	-0.75	-1.15	-1.16	-1.20
100	Ireland	2010	-0.88	0.00	0.00	0.00	-1.11	-2.80	-3.41	-4.38	-5.28
101	Jamaica	2010	4.72	0.00	0.00	0.00	-3.62	-4.01	-3.54	-4.68	-8.08
102	Lesotho	2010	-5.89	0.00	0.00	0.00	-1.35	-0.67	6.41	10.07	10.34
103	Solomon Islands	2010	-0.07	0.00	0.00	0.00	-0.04	-0.31	0.20	1.21	1.41
104	Yemen Arab Republic	2010	1.03	0.00	0.00	0.00	-0.39	-2.08	-3.42	-3.27	-3.06
105	Kenya	2011	0.64	0.00	0.00	0.00	-3.14	-3.05	-3.79	-5.66	-8.93
106	Macedonia	2011	0.90	0.00	0.00	0.00	-1.59	-1.20	-2.89	-2.26	-2.09
107	Portugal	2011	0.66	0.00	0.00	0.00	-0.27	-0.96	-1.91	-2.65	-2.72
108	Saint Kitts and Nevis	2011	0.61	0.00	0.00	0.00	0.06	-0.34	-0.52	0.05	0.69
109	Bangladesh	2012	0.41	0.00	0.00	0.00	5.05*	9.48*	4.00	-1.44	-2.36
110	Central African Republic	2012	-3.02	0.00	0.00	0.00	-3.13	-3.52	-1.68	-1.34	4.57
111	Gambia	2012	-2.26	0.00	0.00	0.00	-0.98	-2.88	-6.12	-9.17	-10.30
112	Guinea	2012	-0.46	0.00	0.00	0.00	-3.99*	-3.51	-2.49	-4.64	-4.36
113	Jordan	2012	1.13	0.00	0.00	0.00	1.05	2.20	2.36	2.15	1.44
114	Morocco	2012	1.11	0.00	0.00	0.00	-1.83	-1.81	-1.90	-1.06	-0.67
115	Cyprus	2013	-0.11	0.00	0.00	0.00	-0.59	-0.83	-0.38	0.67	1.32
116	Pakistan	2013	0.77	0.00	0.00	0.00	-0.08	0.24	0.05	0.51	0.41
117	Tunisia	2013	-0.18	0.00	0.00	0.00	-0.07	0.59	2.43	3.44	3.90
118	Albania	2014	-1.70	0.00	0.00	0.00	0.52	1.12	0.16	-0.28	-0.72
119	Chad	2014	1.11	0.00	0.00	0.00	-3.61	-6.87	-13.61	-18.83	-17.70
120	Seychelles	2014	-5.55	0.00	0.00	0.00	-1.64	-0.11	5.13	6.87	7.33

121	Ghana	2015	0.17	0.00	0.00	0.00	3.70**	4.37**	5.94*	7.28*	5.77*
122	Haiti	2015	-1.33	0.00	0.00	0.00	0.70	2.01	3.36	3.84	5.03
123	Mozambique	2015	-1.93	0.00	0.00	0.00	1.49	1.81	6.02	7.79	5.22
124	Afghanistan	2016	3.74	0.00	0.00	0.00	0.37	-1.12	-2.20	-0.69	-1.43
125	Egypt	2016	-1.82	0.00	0.00	0.00	-1.09	1.47	0.44	-2.43	-0.33
126	Iraq	2016	2.32	0.00	0.00	0.00	0.08	-0.98	-2.50	-3.15	-3.86
127	Madagascar	2016	-0.46	0.00	0.00	0.00	-1.32	-2.94	-2.00	-1.19	0.74
128	Moldova	2016	0.38	0.00	0.00	0.00	0.30	-0.16	-1.24	-6.17	-6.27
129	Rwanda	2016	-0.38	0.00	0.00	0.00	-2.14	-2.94	-4.36	-1.91	0.82
130	Sri Lanka	2016	1.02	0.00	0.00	0.00	0.29	0.49	0.26	-0.06	0.24
131	Suriname	2016	-0.13	0.00	0.00	0.00	4.19**	8.35**	5.64**	2.85**	2.65**
132	Cameroon	2017	1.05	0.00	0.00	0.00	0.29	0.72	0.44	0.43	1.00
133	Mauritania	2017	1.11	0.00	0.00	0.00	-0.94	0.80	0.73	1.72	1.93
134	Mongolia	2017	-0.93	0.00	0.00	0.00	-1.60	-2.86	-4.26	-6.96	-8.09
135	Angola	2018	-5.02	0.00	0.00	0.00	-0.66	2.47	3.22	2.43	2.73
136	Barbados	2018	0.76	0.00	0.00	0.00	1.81	1.45	1.78	1.89	1.93
137	Armenia	2019	-2.12	0.00	0.00	0.00	0.02	0.57	1.13	1.78	
138	Congo	2019	-0.74	0.00	0.00	0.00	0.40	0.02	-0.71	-1.37	
139	Ecuador	2019	3.63	0.00	0.00	0.00	-1.59	-2.49	-1.70	-1.31	
140	Equatorial Guinea	2019	-2.27	0.00	0.00	0.00	-0.28	-1.99	-4.88	-5.49	
141	Honduras	2019	-1.37	0.00	0.00	0.00	0.04	0.26	0.36	0.96	
142	Liberia	2019	-3.37	0.00	0.00	0.00	-0.68	-0.84	-2.78	-1.54	
143	Pakistan	2019	0.38	0.00	0.00	0.00	-0.42	-0.25	-0.52	-0.52	
144	Gambia	2020	1.40	0.00	0.00	0.00	2.14	3.00	1.92		
145	Costa Rica	2021	3.18	0.00	0.00	0.00	-0.82	-1.63			
146	Kenya	2021	-1.30	0.00	0.00	0.00	0.51	0.06			
147	Madagascar	2021	1.14	0.00	0.00	0.00	-0.96	0.06			
148	Moldova	2021	0.48	0.00	0.00	0.00	0.96	1.25			
149	Suriname	2021	2.44	0.00	0.00	0.00	1.09	1.05			

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.1.2: Effects of IMF-Supported Programs on Gender Inequality: Adolescent Fertility Rate, Robustness

A positive gender impact gap implies a higher adolescent fertility rate (births per 1,000 women ages 15-19) in IMF program countries compared to the control group.

Synthetic Control Predictors: Adolescent Fertility (lagged), Reserve Coverage (lagged), Government Consumption, Reserves (Percent of External Debt).

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Bolivia	1994	1.21	0.00	0.00	0.00	-1.06	-4.14	-0.85	-0.13	-0.24
2	Central African Republic	1994	3.58	0.00	0.00	0.00	-2.49	-4.57	-6.56	-7.50	-6.54
3	Chad	1994	11.30	0.00	0.00	0.00	-0.51	7.92	9.68	12.30	18.26
4	Sierra Leone	1994	-0.04	0.00	0.00	0.00	0.58*	-3.33*	0.25*	2.88*	4.43*
5	Turkey	1994	-8.77	0.00	0.00	0.00	2.56	-1.12	2.28	1.40	-0.01
6	Uganda	1994	3.77	0.00	0.00	0.00	-4.15	2.12	7.19	7.70	4.84
7	Ghana	1995	4.08	0.00	0.00	0.00	4.92	1.11	9.24	11.87	8.74
8	Mexico	1995	-0.77	0.00	0.00	0.00	-1.72	-0.81	-3.04	-5.52	-9.85
9	Madagascar	1996	-2.65	0.00	0.00	0.00	1.65	1.00	-0.98	-1.28	-4.34
10	Mozambique	1996	-4.11	0.00	0.00	0.00	6.26	8.84	9.78	11.27	8.93
11	Tanzania	1996	0.81	0.00	0.00	0.00	2.37	5.53	2.73	2.44	2.97
12	Venezuela	1996	-2.84	0.00	0.00	0.00	5.74	5.57	5.69	9.50	7.67
13	Yemen Arab Republic	1996	-2.02	0.00	0.00	0.00	-3.66	1.69	-3.70	-6.25	-10.66
14	Guinea	1997	-3.65	0.00	0.00	0.00	3.95	-0.80	1.74	-9.25	-10.54
15	Indonesia	1997	-0.30	0.00	0.00	0.00	-0.70	-3.43*	-1.97*	-2.04	-1.91
16	Thailand	1997	-1.75	0.00	0.00	0.00	-3.15	-2.72	-8.31	-15.58	-14.50
17	Albania	1998	-2.92	0.00	0.00	0.00	-2.49	-5.25	-7.28	-12.07	-8.63
18	Brazil	1998	2.65	0.00	0.00	0.00	-0.60	-1.48	-2.83	-4.83	-8.89
19	Gambia	1998	3.02	0.00	0.00	0.00	-2.36	-5.96	-11.55	-11.90	-13.75
20	Rwanda	1998	0.20	0.00	0.00	0.00	-2.32*	-6.28*	-9.65*	-11.80*	-15.57*
21	Zimbabwe	1998	2.78	0.00	0.00	0.00	-0.74	-1.23	-2.40	-2.83	-4.07
22	Cambodia	1999	8.14	0.00	0.00	0.00	-3.06	0.07	5.22	5.60	2.69
23	Colombia	1999	-4.62	0.00	0.00	0.00	4.05	3.81	2.87	3.52	4.28
24	Honduras	1999	-9.62	0.00	0.00	0.00	1.77	3.25	-0.28	1.69	5.35
25	Turkey	1999	-1.81	0.00	0.00	0.00	0.92	1.04	1.53	-2.88	-4.85
26	Chad	2000	3.51	0.00	0.00	0.00	-4.60	-4.28	-2.26	5.99	26.48
27	Ecuador	2000	2.91	0.00	0.00	0.00	-4.57	-7.56	-7.71	-5.18	-1.27

28	Gabon	2000	-0.97	0.00	0.00	0.00	-0.20	-3.16	-0.29	3.30	12.96
29	Papua New Guinea	2000	-1.44	0.00	0.00	0.00	1.33	3.26	2.66	2.57	-0.94
30	Armenia	2001	4.32	0.00	0.00	0.00	-3.92	-1.76	-0.41	4.89	10.33
31	Azerbaijan	2001	2.58	0.00	0.00	0.00	-0.79	0.20	2.20	4.18	10.26
32	Georgia	2001	2.77	0.00	0.00	0.00	-5.31	-2.08	1.07	5.43	16.78
33	Madagascar	2001	-0.68	0.00	0.00	0.00	0.68	4.31	9.08	12.10	16.92
34	Sierra Leone	2001	-2.34	0.00	0.00	0.00	-1.03	3.91	8.67	9.04	14.64
35	Sri Lanka	2001	1.65	0.00	0.00	0.00	0.69	-0.22	-1.33	-1.11	-1.20
36	Vietnam	2001	3.28	0.00	0.00	0.00	-0.94	-0.07	-0.01	4.71	9.16
37	Democratic Republic of Congo	2002	0.46	0.00	0.00	0.00	1.94	3.27	7.50	9.78	9.44
38	Guatemala	2002	9.00	0.00	0.00	0.00	-1.20	-6.02	-6.48	-6.45	-4.98
39	Uganda	2002	-0.22	0.00	0.00	0.00	-1.80	-7.29	-3.33	-3.30	-4.52
40	Bangladesh	2003	-4.74	0.00	0.00	0.00	-0.10	4.20	-5.14	-8.62	0.29
41	Bolivia	2003	-2.57	0.00	0.00	0.00	0.04	0.79	0.69	-1.11	-0.49
42	Dominican Republic	2003	-3.69	0.00	0.00	0.00	-1.96	-6.47	-9.98	-11.90	-7.36
43	Nepal	2003	-1.35	0.00	0.00	0.00	1.60	1.11	0.13	-3.68	-4.95
44	Paraguay	2003	-2.90	0.00	0.00	0.00	0.83	0.79	1.05	-1.51	-4.29
45	Burundi	2004	3.56	0.00	0.00	0.00	0.73	-0.52	-3.02	-7.75	-14.71
46	Congo	2004	-3.06	0.00	0.00	0.00	-0.46	0.38	3.18	7.40	12.41
47	Honduras	2004	1.85	0.00	0.00	0.00	0.49	-0.07	3.26	3.13	5.70
48	Mozambique	2004	3.21	0.00	0.00	0.00	-3.07	-5.03	-0.83	2.94	14.18
49	Ukraine	2004	2.77	0.00	0.00	0.00	0.51	1.18	1.44	2.01	3.49
50	Cameroon	2005	-0.14	0.00	0.00	0.00	-3.90*	-1.74*	-1.77*	-6.08*	-8.50*
51	Chad	2005	1.49	0.00	0.00	0.00	-11.14	-9.60	-4.29	-6.38	-9.12
52	Central African Republic	2006	0.45	0.00	0.00	0.00	3.97*	8.04*	8.06	9.76	15.64
53	Haiti	2006	2.24	0.00	0.00	0.00	-1.62	-7.67	-10.99	-13.33	-17.21
54	Madagascar	2006	-1.26	0.00	0.00	0.00	3.53	6.10	1.52	2.18	1.43
55	Moldova	2006	1.82	0.00	0.00	0.00	-0.80	-3.05	-5.94	-4.91	-5.24
56	Sierra Leone	2006	-2.62	0.00	0.00	0.00	1.53	-1.52	-8.86	-12.69	-16.80
57	Gambia	2007	-1.56	0.00	0.00	0.00	-2.64	-6.68	-7.89	-13.32	-14.05
58	Guinea	2007	2.99	0.00	0.00	0.00	1.49	5.57	6.38	9.16	6.19
59	Nicaragua	2007	-0.58	0.00	0.00	0.00	-0.98	-1.67	-1.61	-0.46	-1.96
60	Pakistan	2008	1.38	0.00	0.00	0.00	-2.04	-2.82	-3.15	-5.72	-5.75
61	Angola	2009	4.06	0.00	0.00	0.00	2.25	1.39	-6.34	-10.23	-14.21
62	Belarus	2009	-0.95	0.00	0.00	0.00	0.81	-0.56	-0.81	0.50	-0.74
63	Bosnia and Herzegovina	2009	-0.83	0.00	0.00	0.00	1.26	1.97	-0.53	-0.88	-3.40
64	Comoros	2009	0.83	0.00	0.00	0.00	0.15	-0.37	-1.89	-4.15	-6.54
65	Costa Rica	2009	1.60	0.00	0.00	0.00	-2.03	-5.22	-5.94	-4.97	-9.46
66	Democratic Republic of Congo	2009	-3.08	0.00	0.00	0.00	-0.45	-0.10	1.86	1.73	-0.95
67	El Salvador	2009	0.06	0.00	0.00	0.00	0.05	0.89*	0.87*	1.11*	2.61*
68	Ghana	2009	1.95	0.00	0.00	0.00	-1.46	-0.61	0.55	0.47	2.66
69	Guatemala	2009	3.56	0.00	0.00	0.00	-0.09	-0.46	2.22	3.04	-4.69
70	Mongolia	2009	-4.21	0.00	0.00	0.00	1.62	2.33	4.06	10.12	6.84
71	Mozambique	2009	1.32	0.00	0.00	0.00	2.10	8.49	11.90	15.57	20.59
72	Romania	2009	-0.49	0.00	0.00	0.00	2.21*	-4.39*	-9.47*	-10.20*	-15.56*
73	Tajikistan	2009	1.34	0.00	0.00	0.00	2.79	4.91	7.21	6.15	6.03
74	Tanzania	2009	-0.23	0.00	0.00	0.00	1.41*	4.29*	2.83*	1.42	7.06*
75	Jamaica	2010	4.43	0.00	0.00	0.00	-2.99	-3.74	-3.37	-4.71	-8.05
76	Solomon Islands	2010	0.47	0.00	0.00	0.00	2.51	3.24	4.79	5.35	5.51
77	Yemen Arab Republic	2010	-0.47	0.00	0.00	0.00	0.82	-1.26	-4.82	-6.57	-8.21
78	Kenya	2011	0.58	0.00	0.00	0.00	-2.69	-2.48	-3.19	-5.04	-8.31
79	Macedonia	2011	0.72	0.00	0.00	0.00	-1.21	-0.99	-2.51	-2.14	-2.11
80	Bangladesh	2012	3.33	0.00	0.00	0.00	3.88	9.25	6.03	4.01	2.72
81	Central African Republic	2012	-1.93	0.00	0.00	0.00	-1.63	-2.07	-0.34	-1.30	4.53
82	Gambia	2012	-1.15	0.00	0.00	0.00	-2.00	-3.39	-5.76	-7.04	-8.29
83	Guinea	2012	1.19	0.00	0.00	0.00	-4.18	-3.22	-1.57	-4.84	-4.33
84	Jordan	2012	1.24	0.00	0.00	0.00	1.84	2.87	3.31	2.91	2.20
85	Morocco	2012	-0.40	0.00	0.00	0.00	0.39	-1.11	-2.03	-0.47	0.29
86	Pakistan	2013	1.34	0.00	0.00	0.00	-0.08	0.22	1.53	2.40	2.19
87	Tunisia	2013	-2.79	0.00	0.00	0.00	0.51	-0.13	2.02	2.54	3.26
88	Albania	2014	-1.98	0.00	0.00	0.00	0.16	2.08	0.90	0.63	1.05
89	Chad	2014	0.58	0.00	0.00	0.00	-3.31*	-6.16*	-13.27*	-18.60*	-16.74*
90	Ghana	2015	1.16	0.00	0.00	0.00	5.29	6.47	8.00	10.32	10.58
91	Haiti	2015	1.92	0.00	0.00	0.00	2.76	4.38	3.99	5.20	7.95
92	Mozambique	2015	-2.20	0.00	0.00	0.00	-0.66	-2.10	1.37	2.57	0.09
93	Egypt	2016	-2.07	0.00	0.00	0.00	-1.76	-1.11	-0.66	-2.07	-0.40
94	Madagascar	2016	-0.62	0.00	0.00	0.00	-1.62	-3.21	-2.10	-1.17	1.18
95	Moldova	2016	0.66	0.00	0.00	0.00	3.38	5.65	4.47	-2.17	-2.25
96	Rwanda	2016	-0.65	0.00	0.00	0.00	-1.13	-1.49	-1.83	-0.58	1.51

97	Cameroon	2017	0.63	0.00	0.00	0.00	0.14	0.58	0.47	0.86	1.61
98	Mauritania	2017	0.74	0.00	0.00	0.00	-1.44	0.43	0.77	2.18	2.74
99	Mongolia	2017	-1.85	0.00	0.00	0.00	-2.25	-3.44	-4.19	-6.46	-7.50
100	Angola	2018	-1.46	0.00	0.00	0.00	0.60	3.91	4.83	6.29	6.17
101	Armenia	2019	-2.14	0.00	0.00	0.00	0.16	0.59	1.03	1.66	
102	Congo	2019	2.68	0.00	0.00	0.00	0.11	0.37	1.41	0.78	
103	Ecuador	2019	3.47	0.00	0.00	0.00	-1.46	-2.94	-2.55	-2.20	
104	Honduras	2019	-1.10	0.00	0.00	0.00	1.21	2.98	3.99	4.66	
105	Pakistan	2019	0.25	0.00	0.00	0.00	0.45	0.49	0.15	-0.18	
106	Gambia	2020	0.20	0.00	0.00	0.00	3.97*	5.30**	4.11**		
107	Costa Rica	2021	2.89	0.00	0.00	0.00	-0.70	-1.58			
108	Kenya	2021	-1.92	0.00	0.00	0.00	0.82	0.21			
109	Madagascar	2021	2.37	0.00	0.00	0.00	0.26	0.94			
110	Moldova	2021	0.61	0.00	0.00	0.00	0.91	1.15			

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.2.1: Effects of IMF-Supported Programs on Gender Inequality: Ratio of Female to Male Labor Force Participation Rate

A positive gender impact gap implies a higher labor force participation of women relative to men in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Ratio of Female to Male Labor Force (lagged), Reserve Coverage (lagged).

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Ghana	1995	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
2	Haiti	1995	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02
3	Mexico	1995	0.00	0.00	0.00	0.00	0.02	0.01	0.03	0.02	0.01
4	Djibouti	1996	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.01	0.00
5	Madagascar	1996	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
6	Mozambique	1996	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.03
7	Tanzania	1996	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Venezuela	1996	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.02
9	Yemen Arab Republic	1996	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.01
10	Guinea	1997	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
11	Indonesia	1997	0.00	0.00	0.00	0.00	-0.01	0.01	0.02	0.02	0.00
12	Korea	1997	0.01	0.00	0.00	0.00	0.01	-0.02	-0.02	0.00	0.00
13	Thailand	1997	0.01	0.00	0.00	0.00	-0.01	-0.04	-0.06	-0.07	-0.08
14	Albania	1998	0.01	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00
15	Brazil	1998	-0.01	0.00	0.00	0.00	0.01	0.02	0.03	0.05	0.06
16	Cape Verde	1998	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
17	Gambia	1998	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
18	Rwanda	1998	-0.02	0.00	0.00	0.00	-0.01	-0.02	-0.04	-0.03	-0.02
19	Zimbabwe	1998	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	Cambodia	1999	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
21	Colombia	1999	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.01
22	Honduras	1999	0.01	0.00	0.00	0.00	-0.01	-0.02	-0.03	-0.03	-0.04
23	Turkey	1999	-0.01	0.00	0.00	0.00	-0.01	-0.08	-0.07	-0.04	-0.05
24	Chad	2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	Ecuador	2000	0.03	0.00	0.00	0.00	-0.01	0.00	0.01	0.02	0.04
26	Gabon	2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
27	Lithuania	2000	0.00	0.00	0.00	0.00	-0.03	-0.05	-0.07	-0.05	-0.07
28	Malawi	2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
29	Nigeria	2000	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.01	-0.01
30	Papua New Guinea	2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
31	Armenia	2001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32	Azerbaijan	2001	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	-0.01
33	Ethiopia	2001	0.00	0.00	0.00	0.00	0.00	0.01	0.01*	0.01*	0.01*
34	Georgia	2001	0.04	0.00	0.00	0.00	-0.02	-0.04	-0.03	0.01	-0.04
35	Laos	2001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	Lesotho	2001	0.00	0.00	0.00	0.00	-0.02	-0.02	-0.03	-0.03	-0.04
37	Madagascar	2001	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02
38	Sierra Leone	2001	0.00	0.00	0.00	0.00	-0.01**	-0.00**	-0.00**	-0.01**	-0.01**
39	Sri Lanka	2001	-0.11	0.00	0.00	0.00	0.03	0.06	0.08	0.07	0.08
40	Vietnam	2001	0.01	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.03
41	Democratic Republic of Congo	2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42	Uganda	2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
43	Bangladesh	2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	Bolivia	2003	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
45	Dominican Republic	2003	0.00	0.00	0.00	0.00	-0.04**	-0.05**	-0.05**	-0.06**	-0.06**
46	Nepal	2003	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
47	Paraguay	2003	0.01	0.00	0.00	0.00	0.01	0.07	0.06	0.02	0.06
48	Burundi	2004	0.00	0.00	0.00	0.00	0.00	-0.01*	-0.02*	-0.01*	0.00*
49	Congo	2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

50	Honduras	2004	0.00	0.00	0.00	0.00	0.00*	0.01*	-0.02*	-0.02*	-0.00*
51	Mozambique	2004	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	Ukraine	2004	-0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	-0.01
53	Zambia	2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
54	Cameroon	2005	0.00	0.00	0.00	0.00	-0.00*	-0.00*	0.00	-0.02**	-0.04**
55	Chad	2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
56	Iraq	2005	0.00	0.00	0.00	0.00	0.01	0.01	0.00	-0.01	-0.02
57	Malawi	2005	0.00	0.00	0.00	0.00	0.00	-0.01**	-0.02**	-0.03**	-0.04**
58	Sao Tome and Principe	2005	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01
59	Central African Republic	2006	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00
60	Haiti	2006	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02
61	Madagascar	2006	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
62	Moldova	2006	-0.03	0.00	0.00	0.00	-0.05	-0.02	-0.04	-0.06	-0.06
63	Sierra Leone	2006	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
64	Gambia	2007	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02
65	Guinea	2007	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.03	-0.03
66	Nicaragua	2007	-0.01	0.00	0.00	0.00	0.01	0.02	0.03	0.03	0.04
67	Djibouti	2008	0.00	0.00	0.00	0.00	0.02**	0.02**	0.02**	0.04**	0.04**
68	Hungary	2008	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00
69	Iceland	2008	-0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
70	Liberia	2008	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
71	Pakistan	2008	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02
72	Angola	2009	0.00	0.00	0.00	0.00	0.00	0.00	-0.02*	-0.02*	-0.02
73	Belarus	2009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
74	Bosnia and Herzegovina	2009	0.00	0.00	0.00	0.00	0.00	-0.01	0.01	0.00	-0.02
75	Comoros	2009	0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.03
76	Costa Rica	2009	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.07
77	Cote d'Ivoire	2009	0.00	0.00	0.00	0.00	0.00	0.00**	0.00**	0.01**	0.02**
78	Democratic Republic of Congo	2009	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.03	-0.04
79	El Salvador	2009	-0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
80	Ethiopia	2009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
81	Ghana	2009	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01	-0.01
82	Guatemala	2009	0.00	0.00	0.00	0.00	0.00	0.00	-0.04**	-0.04*	-0.04*
83	Maldives	2009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	Mongolia	2009	0.00	0.00	0.00	0.00	-0.01**	-0.02**	-0.02**	-0.02**	-0.03**
85	Mozambique	2009	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02
86	Romania	2009	0.00	0.00	0.00	0.00	0.00	-0.01	0.01	0.00	-0.01
87	Sri Lanka	2009	0.00	0.00	0.00	0.00	-0.00*	0.00	0.01**	-0.02**	0.01**
88	Tajikistan	2009	0.00	0.00	0.00	0.00	0.00	0.02**	0.03**	0.05**	0.05**
89	Tanzania	2009	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.03
90	Greece	2010	0.01	0.00	0.00	0.00	0.02	0.03	0.03	0.02	0.03
91	Ireland	2010	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.02
92	Lesotho	2010	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.01
93	Solomon Islands	2010	0.01	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.01
94	Yemen Arab Republic	2010	0.05	0.00	0.00	0.00	0.00	-0.04	-0.06	-0.09	-0.10
95	Kenya	2011	0.00	0.00	0.00	0.00	-0.00*	0.00	0.00	0.00	0.00
96	Macedonia	2011	0.02	0.00	0.00	0.00	0.02	0.01	0.03	0.02	0.01
97	Portugal	2011	0.01	0.00	0.00	0.00	-0.02	-0.01	-0.01	0.00	0.00
98	Bangladesh	2012	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
99	Central African Republic	2012	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.01
100	Gambia	2012	0.00	0.00	0.00	0.00	0.01	0.04	0.06	0.08	0.10
101	Guinea	2012	0.03	0.00	0.00	0.00	-0.08	0.00	0.01	-0.03	-0.04
102	Jordan	2012	0.00	0.00	0.00	0.00	-0.01	-0.03	-0.04	-0.04	-0.02
103	Morocco	2012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02
104	Cyprus	2013	-0.01	0.00	0.00	0.00	-0.01	0.00	0.01	0.01	0.01
105	Pakistan	2013	0.00	0.00	0.00	0.00	-0.02	-0.02	-0.02	-0.04	-0.05
106	Tunisia	2013	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107	Albania	2014	-0.04	0.00	0.00	0.00	-0.02	0.03	0.06	0.05	0.07
108	Chad	2014	0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.02
109	Ghana	2015	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	Haiti	2015	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02
111	Mozambique	2015	0.02	0.00	0.00	0.00	-0.01	0.00	0.00	0.01	0.01
112	Afghanistan	2016	-0.02	0.00	0.00	0.00	-0.01	0.00	-0.01	-0.02	-0.04
113	Egypt	2016	0.01	0.00	0.00	0.00	0.01	0.01	-0.05	-0.08	-0.10
114	Iraq	2016	0.02	0.00	0.00	0.00	-0.01	-0.06	-0.06	-0.05	-0.04
115	Madagascar	2016	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
116	Moldova	2016	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
117	Rwanda	2016	-0.03	0.00	0.00	0.00	0.00	0.00	-0.01	-0.05	-0.01
118	Sri Lanka	2016	-0.03	0.00	0.00	0.00	-0.01	0.00	-0.04	-0.04	-0.05
119	Suriname	2016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	Cameroon	2017	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
121	Mauritania	2017	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01
122	Mongolia	2017	0.00	0.00	0.00	0.00	0.01	-0.05	-0.03	-0.04	-0.05
123	Angola	2018	-0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01
124	Barbados	2018	-0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.00
125	Armenia	2019	0.01	0.00	0.00	0.00	0.02	0.04	0.03	0.01	0.01
126	Congo	2019	0.00	0.00	0.00	0.00	0.00	0.01	0.01*	0.01	0.01
127	Ecuador	2019	-0.04	0.00	0.00	0.00	0.00	-0.02	-0.01	0.01	-0.01

128	Equatorial Guinea	2019	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
129	Honduras	2019	0.03	0.00	0.00	0.00	-0.04	0.05	0.04	0.04	0.04
130	Pakistan	2019	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
131	Gambia	2020	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	
132	Costa Rica	2021	-0.03	0.00	0.00	0.00	-0.02	-0.01	-0.08		
133	Kenya	2021	-0.01	0.00	0.00	0.00	0.00	0.01	0.01		
134	Madagascar	2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
135	Moldova	2021	0.00	0.00	0.00	0.00	-0.02**	0.01	0.02*		
136	Suriname	2021	-0.01	0.00	0.00	0.00	0.00	0.01	0.01		
137	Serbia	2022	0.00	0.00	0.00	0.00	0.01	0.00			
138	Cape Verde	2022	0.01	0.00	0.00	0.00	0.00	0.00			
139	Georgia	2022	0.00	0.00	0.00	0.00	-0.01	-0.01			
140	Macedonia	2022	-0.03	0.00	0.00	0.00	0.00	0.02			
141	Mozambique	2022	-0.01	0.00	0.00	0.00	-0.01	-0.01			
142	Nepal	2022	-0.01	0.00	0.00	0.00	-0.01	-0.01			

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.2.2: Effects of IMF-Supported Programs on Gender Inequality: Ratio of Female to Male Labor Force Participation Rate, Robustness

A positive gender impact gap implies a higher labor force participation of women relative to men in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Ratio of Female to Male Labor Force (lagged), Reserve Coverage (lagged), Government Consumption, Reserves (Percent of External Debt).

	Country	Prog Yr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Ghana	1995	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.03
2	Mexico	1995	0.00	0.00	0.00	0.00	0.02	0.02	0.04	0.05	0.06
3	Madagascar	1996	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.01	-0.01
4	Mozambique	1996	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.03
5	Tanzania	1996	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.00
6	Venezuela	1996	0.00	0.00	0.00	0.00	0.01	0.00	-0.02	-0.02	-0.02
7	Yemen Arab Republic	1996	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.04	0.02
8	Guinea	1997	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.04
9	Indonesia	1997	-0.01	0.00	0.00	0.00	-0.01	0.01	0.01	0.02	0.01
10	Thailand	1997	0.02	0.00	0.00	0.00	0.00	-0.03	-0.04	-0.05	-0.07
11	Albania	1998	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
12	Brazil	1998	-0.01	0.00	0.00	0.00	0.01	0.02	0.03	0.06	0.06
13	Gambia	1998	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01
14	Rwanda	1998	-0.02	0.00	0.00	0.00	0.00	-0.01	0.00	0.02	0.03
15	Zimbabwe	1998	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
16	Cambodia	1999	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
17	Colombia	1999	0.00	0.00	0.00	0.00	-0.03**	-0.03**	-0.03**	-0.06**	-0.06**
18	Honduras	1999	0.01	0.00	0.00	0.00	-0.01	-0.03	-0.03	-0.04	-0.04
19	Turkey	1999	0.00	0.00	0.00	0.00	0.08	0.09	0.12	0.21	0.26
20	Chad	2000	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	-0.01
21	Ecuador	2000	0.03	0.00	0.00	0.00	-0.02	-0.01	0.01	0.03	0.07
22	Gabon	2000	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
23	Papua New Guinea	2000	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.02	-0.02
24	Armenia	2001	0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02
25	Azerbaijan	2001	0.01	0.00	0.00	0.00	0.01	0.00	-0.02	-0.01	-0.02
26	Georgia	2001	0.03	0.00	0.00	0.00	-0.02	-0.05	-0.03	0.02	-0.05
27	Madagascar	2001	0.01	0.00	0.00	0.00	0.01	-0.02	-0.02	-0.02	-0.03
28	Sierra Leone	2001	0.01	0.00	0.00	0.00	0.01	-0.01	-0.01	-0.01	-0.01
29	Sri Lanka	2001	-0.10	0.00	0.00	0.00	0.05	0.07	0.11	0.09	0.12
30	Vietnam	2001	0.02	0.00	0.00	0.00	-0.01	-0.03	-0.03	-0.02	-0.04
31	Democratic Republic of Congo	2002	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01
32	Guatemala	2002	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
33	Uganda	2002	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.01
34	Bangladesh	2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
35	Bolivia	2003	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00
36	Dominican Republic	2003	0.00	0.00	0.00	0.00	-0.04**	-0.04**	-0.05**	-0.05**	-0.05**
37	Nepal	2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02*
38	Paraguay	2003	0.00	0.00	0.00	0.00	0.01	0.06	0.05	0.01	0.04
39	Burundi	2004	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	0.01	0.03
40	Congo	2004	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
41	Honduras	2004	0.00	0.00	0.00	0.00	0.00	0.00*	-0.04**	-0.04**	-0.03**
42	Mozambique	2004	0.01	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
43	Ukraine	2004	-0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.00
44	Cameroon	2005	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.00

45	Chad	2005	0.00	0.00	0.00	0.00	-0.00**	-0.00**	-0.01**	-0.01**	-0.02**
46	Central African Republic	2006	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
47	Haiti	2006	0.00	0.00	0.00	0.00	0.00	0.01*	0.02*	0.02*	0.03*
48	Madagascar	2006	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
49	Moldova	2006	-0.02	0.00	0.00	0.00	-0.05	0.00	-0.01	-0.03	0.00
50	Sierra Leone	2006	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
51	Gambia	2007	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
52	Guinea	2007	0.00	0.00	0.00	0.00	-0.03*	-0.04*	-0.04*	-0.05*	-0.05*
53	Nicaragua	2007	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.03	0.04
54	Pakistan	2008	-0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02
55	Angola	2009	0.01	0.00	0.00	0.00	0.00	0.01	-0.01	-0.03	-0.01
56	Belarus	2009	0.01	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
57	Bosnia and Herzegovina	2009	0.01	0.00	0.00	0.00	-0.01	-0.02	0.00	-0.02	0.00
58	Comoros	2009	0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02
59	Costa Rica	2009	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.07
60	Democratic Republic of Congo	2009	0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.03	-0.04
61	El Salvador	2009	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
62	Ghana	2009	0.01	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.02
63	Guatemala	2009	0.00	0.00	0.00	0.00	0.00	0.00	-0.04	0.00	-0.04
64	Mongolia	2009	0.01	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.04	-0.02
65	Mozambique	2009	0.01	0.00	0.00	0.00	0.00	0.01	0.00	-0.03	-0.01
66	Romania	2009	0.01	0.00	0.00	0.00	-0.01	-0.01	0.00	-0.02	-0.01
67	Tajikistan	2009	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.04	0.05
68	Tanzania	2009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.02
69	Jamaica	2010	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02
70	Solomon Islands	2010	0.00	0.00	0.00	0.00	0.02*	0.01*	-0.02	0.02	0.02*
71	Yemen Arab Republic	2010	0.05	0.00	0.00	0.00	0.01	-0.03	-0.06	-0.07	-0.07
72	Kenya	2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	Macedonia	2011	0.02	0.00	0.00	0.00	0.02	0.01	0.03	0.02	0.00
74	Bangladesh	2012	0.00	0.00	0.00	0.00	-0.01	0.00	0.02	0.02	0.03
75	Central African Republic	2012	0.01	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00
76	Gambia	2012	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.09	0.12
77	Guinea	2012	0.01	0.00	0.00	0.00	0.00	-0.06	-0.09	-0.12	-0.13
78	Jordan	2012	0.00	0.00	0.00	0.00	-0.03	-0.01	-0.01	-0.01	0.01
79	Morocco	2012	0.00	0.00	0.00	0.00	-0.02	0.01	0.02	0.01	-0.01
80	Pakistan	2013	-0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	-0.01
81	Tunisia	2013	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
82	Albania	2014	-0.05	0.00	0.00	0.00	-0.01	0.04	0.07	0.05	0.07
83	Chad	2014	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02
84	Ghana	2015	0.00	0.00	0.00	0.00	-0.00*	0.00**	0.01**	0.01**	0.01**
85	Haiti	2015	-0.01	0.00	0.00	0.00	0.03	0.03	0.04	0.04	0.04
86	Mozambique	2015	0.01	0.00	0.00	0.00	0.01	0.03	0.04	0.04	0.05
87	Egypt	2016	0.01	0.00	0.00	0.00	0.01	0.02	-0.04	-0.08	-0.10
88	Madagascar	2016	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02
89	Moldova	2016	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01
90	Rwanda	2016	-0.01	0.00	0.00	0.00	0.00	0.01	0.00	-0.02	0.01
91	Cameroon	2017	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
92	Mauritania	2017	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
93	Mongolia	2017	0.00	0.00	0.00	0.00	0.01*	-0.05**	-0.03**	-0.03**	-0.04**
94	Angola	2018	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.02	-0.01

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.3.1: Effects of IMF-Supported Programs on Gender Inequality: Female Labor Force Participation Rate

A positive gender impact gap implies a higher female labor force participation rate in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Female Labor Force Participation (in percent, lagged), Reserve Coverage (lagged).

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Bolivia	1994	-1.04	0.00	0.00	0.00	0.24	0.46	0.74	0.88	1.45
2	Central African Republic	1994	-0.22	0.00	0.00	0.00	0.28	0.09	-0.47	-1.07	-1.49
3	Chad	1994	0.09	0.00	0.00	0.00	-0.34	-1.12*	-2.00*	-2.93*	-3.67*
4	Malawi	1994	-0.08	0.00	0.00	0.00	0.16	0.31	-0.11	-0.60	-0.93
5	Sierra Leone	1994	-0.02	0.00	0.00	0.00	0.29**	0.07*	-0.34*	-0.75*	-0.95*
6	Turkey	1994	-3.59	0.00	0.00	0.00	11.14	10.01	7.64	5.04	5.21
7	Uganda	1994	0.09	0.00	0.00	0.00	0.28	0.13	-0.31	-0.78	-1.05
8	Ghana	1995	-0.37	0.00	0.00	0.00	0.12	-0.16	-0.47	-0.72	-0.96
9	Haiti	1995	-0.08	0.00	0.00	0.00	0.03	-0.49	-0.77	-0.88	-0.97
10	Mexico	1995	0.22	0.00	0.00	0.00	0.61	0.06	1.37	0.58	-0.47
11	Djibouti	1996	0.10	0.00	0.00	0.00	-0.06	-0.24	-0.69	-0.78	-0.21
12	Madagascar	1996	0.12	0.00	0.00	0.00	-0.08	-0.11	0.31	0.07	-0.62
13	Mozambique	1996	-0.02	0.00	0.00	0.00	0.07	0.34	0.76	0.32	-0.16
14	Tanzania	1996	-0.02	0.00	0.00	0.00	-0.07	-0.11	0.51	0.50	0.20
15	Venezuela	1996	-0.17	0.00	0.00	0.00	0.38	0.36	1.01	0.48	0.71
16	Yemen Arab Republic	1996	0.30	0.00	0.00	0.00	0.28	0.55	1.51	1.55	-0.09
17	Guinea	1997	-0.04	0.00	0.00	0.00	-0.06	0.01	-0.49	-1.55	-1.89*
18	Indonesia	1997	-0.66	0.00	0.00	0.00	-0.89	0.37	0.16	0.13	-1.69
19	Korea	1997	0.07	0.00	0.00	0.00	0.38	-2.41**	-2.69**	-1.40*	-0.97*
20	Thailand	1997	0.54	0.00	0.00	0.00	-0.03	-1.93	-3.71	-4.56	-4.58
21	Albania	1998	1.19	0.00	0.00	0.00	-1.07	-2.30	-2.52	-2.79	-3.05
22	Brazil	1998	-1.25	0.00	0.00	0.00	-0.19	0.01	1.05	1.96	3.49
23	Cape Verde	1998	-0.05	0.00	0.00	0.00	0.11	0.09	-0.11	0.78	0.27
24	Gambia	1998	-0.04	0.00	0.00	0.00	0.02	0.28	0.69	1.42*	2.13*
25	Rwanda	1998	-0.53	0.00	0.00	0.00	-0.09	-0.72	-1.47	-1.44	-1.29
26	Zimbabwe	1998	-0.15	0.00	0.00	0.00	0.02	-0.02	-0.23	-0.29	-0.24
27	Cambodia	1999	-0.51	0.00	0.00	0.00	-0.18	-0.72	-1.25	-1.72	-1.76
28	Colombia	1999	0.19	0.00	0.00	0.00	-0.95	-0.69	-0.36	-1.37	-0.04
29	Honduras	1999	0.29	0.00	0.00	0.00	-0.67	-2.92	-3.46	-3.98	-4.44
30	Turkey	1999	-1.10	0.00	0.00	0.00	-1.06	-7.10	-7.64	-5.95	-6.95
31	Chad	2000	0.04	0.00	0.00	0.00	-0.14	0.03	-0.16	-0.38	-0.84
32	Ecuador	2000	3.74	0.00	0.00	0.00	2.09	0.79	2.36	2.95	7.29
33	Gabon	2000	0.06	0.00	0.00	0.00	0.14	0.19	0.43	0.61	0.93
34	Lithuania	2000	-0.11	0.00	0.00	0.00	-2.84**	-4.41*	-5.46*	-2.37*	-5.09*
35	Malawi	2000	0.04	0.00	0.00	0.00	-0.73**	-1.14*	-1.26	-0.74	-0.44
36	Nigeria	2000	-0.24	0.00	0.00	0.00	-0.30	-0.47	0.15	2.03	2.97
37	Papua New Guinea	2000	0.26	0.00	0.00	0.00	0.28	-2.58	-4.72	-6.83	-8.57
38	Armenia	2001	0.27	0.00	0.00	0.00	-0.36	-0.49	-0.57	-0.44	-0.71
39	Azerbaijan	2001	0.85	0.00	0.00	0.00	-1.98	-3.45	-5.54	-7.62	-9.27
40	Ethiopia	2001	0.07	0.00	0.00	0.00	0.18	0.83	1.51*	2.47**	2.75**
41	Georgia	2001	3.65	0.00	0.00	0.00	0.50	-1.10	-0.50	1.19	-3.59
42	Laos	2001	0.03	0.00	0.00	0.00	0.08	-0.02	-0.12	-0.27	-0.43
43	Lesotho	2001	0.43	0.00	0.00	0.00	-1.07	-1.39	-1.97	-1.91	-3.14
44	Madagascar	2001	0.82	0.00	0.00	0.00	-1.00	-1.57	-1.73	-1.40	-2.44
45	Sierra Leone	2001	-0.16	0.00	0.00	0.00	-0.15	-0.25	-0.09	1.26	0.57
46	Sri Lanka	2001	-9.10	0.00	0.00	0.00	2.20	3.60	5.68	5.19	7.54
47	Vietnam	2001	1.48	0.00	0.00	0.00	0.44	0.32	-0.25	-0.05	0.17
48	Democratic Republic of Congo	2002	-0.06	0.00	0.00	0.00	0.01	0.19	0.29	0.51	-0.51
49	Guatemala	2002	-0.04	0.00	0.00	0.00	0.34	0.41	0.77*	0.47*	0.42
50	Uganda	2002	0.16	0.00	0.00	0.00	0.13	0.63	1.09	1.55	2.11
51	Bangladesh	2003	-0.09	0.00	0.00	0.00	-0.03	0.06	-0.06	-0.63	-0.46
52	Bolivia	2003	2.25	0.00	0.00	0.00	-0.12	-0.03	-0.02	2.87	0.00
53	Dominican Republic	2003	-0.01	0.00	0.00	0.00	-3.67**	-3.09**	-3.21**	-3.09**	-3.30**
54	Nepal	2003	-0.10	0.00	0.00	0.00	-0.06	0.01	0.13	-0.07	0.06
55	Paraguay	2003	0.37	0.00	0.00	0.00	-0.07	5.66*	4.46*	0.28*	3.34*
56	Burundi	2004	1.03	0.00	0.00	0.00	-0.52	-1.30	-1.96	-0.99	0.27
57	Congo	2004	0.00	0.00	0.00	0.00	0.00	-0.01*	-0.01	-0.01	-0.04
58	Honduras	2004	0.00	0.00	0.00	0.00	0.20*	0.54**	-2.37**	-3.01**	-1.58**
59	Mozambique	2004	1.16	0.00	0.00	0.00	-0.07	-0.03	-0.19	-0.88	-0.89
60	Ukraine	2004	-0.01	0.00	0.00	0.00	0.15*	0.18*	0.21*	0.38*	0.06
61	Zambia	2004	-0.20	0.00	0.00	0.00	0.10	0.11	0.12	0.17	-0.01

62	Cameroon	2005	0.11	0.00	0.00	0.00	-0.15	-0.23	-0.50	-3.00	-5.83
63	Chad	2005	0.03	0.00	0.00	0.00	-0.02	-0.06	-0.09	-0.20	-0.36
64	Iraq	2005	-0.30	0.00	0.00	0.00	0.50	0.35	-0.02	-0.71	-1.42
65	Malawi	2005	0.11	0.00	0.00	0.00	0.00	-1.48	-3.31	-5.04	-6.98
66	Sao Tome and Principe	2005	-0.20	0.00	0.00	0.00	-0.58	-0.01	-0.07	-0.15	-0.56
67	Central African Republic	2006	0.11	0.00	0.00	0.00	-0.21	-0.61	-0.97	-0.83	0.08
68	Haiti	2006	0.06	0.00	0.00	0.00	0.15	0.37	0.56	0.77	0.96
69	Madagascar	2006	-0.52	0.00	0.00	0.00	0.07	0.14	0.26	0.41	0.63
70	Moldova	2006	-0.15	0.00	0.00	0.00	2.45**	3.77**	3.48**	3.19*	5.97*
71	Sierra Leone	2006	-0.98	0.00	0.00	0.00	-1.45	-2.98	-3.53	-3.65	-3.60
72	Gambia	2007	-0.07	0.00	0.00	0.00	-0.08	0.20	0.17	0.54	0.70
73	Guinea	2007	-0.73	0.00	0.00	0.00	1.26	0.07	-2.37	-4.74	-4.95
74	Nicaragua	2007	0.04	0.00	0.00	0.00	0.55*	1.43**	1.89**	2.80**	3.40**
75	Djibouti	2008	-0.06	0.00	0.00	0.00	0.33	-0.06	-0.38	-0.76	-1.89
76	Hungary	2008	-0.69	0.00	0.00	0.00	-0.55	-1.18	-0.48	-0.32	-0.08
77	Iceland	2008	0.43	0.00	0.00	0.00	-1.10	-2.17	-1.82	-1.92	-1.48
78	Liberia	2008	0.60	0.00	0.00	0.00	-0.12	-0.35	-0.29	0.01	-0.49
79	Pakistan	2008	-0.33	0.00	0.00	0.00	0.72	1.18	1.41	1.47	1.37
80	Angola	2009	0.15	0.00	0.00	0.00	-0.14	0.29	-0.45	-0.91	-2.27
81	Belarus	2009	0.19	0.00	0.00	0.00	0.00	-0.07	-0.01	0.32	1.13
82	Bosnia and Herzegovina	2009	0.48	0.00	0.00	0.00	-0.72	-0.82	-0.95	-0.83	-1.53
83	Comoros	2009	0.18	0.00	0.00	0.00	-0.25	-0.09	0.31	0.28	0.39
84	Costa Rica	2009	0.37	0.00	0.00	0.00	0.35	-0.56	1.53	6.33	6.29
85	Cote d'Ivoire	2009	-0.01	0.00	0.00	0.00	-0.03	0.00	0.03	0.47	0.94
86	Democratic Republic of Congo	2009	0.16	0.00	0.00	0.00	-0.60	-0.90	-1.40	-2.54	-3.81
87	El Salvador	2009	-0.10	0.00	0.00	0.00	-0.34	-0.34	-0.99	-0.69	-0.15
88	Ethiopia	2009	0.61	0.00	0.00	0.00	-0.32	-0.08	0.25	0.03	-0.72
89	Ghana	2009	0.32	0.00	0.00	0.00	-0.35	-0.19	-0.15	-0.66	-2.15
90	Guatemala	2009	0.14	0.00	0.00	0.00	-0.06	0.06	-1.39	3.47	-2.11
91	Maldives	2009	-0.29	0.00	0.00	0.00	0.10	1.08	1.71	2.04	2.59
92	Mongolia	2009	-2.13	0.00	0.00	0.00	1.41	3.76	4.28	3.32	3.64
93	Mozambique	2009	0.79	0.00	0.00	0.00	-0.35	-0.18	-0.36	-0.77	-1.83
94	Romania	2009	-1.23	0.00	0.00	0.00	0.15	0.30	0.33	0.57	0.47
95	Sri Lanka	2009	-0.03	0.00	0.00	0.00	-0.07	-0.02	0.17	-1.23	0.03
96	Tajikistan	2009	-0.18	0.00	0.00	0.00	0.17	1.06	1.59	1.85	2.10
97	Tanzania	2009	-0.56	0.00	0.00	0.00	-0.54	-0.26	-0.62	-1.56	-2.76
98	Greece	2010	0.31	0.00	0.00	0.00	0.90	0.46	-0.16	-0.64	-0.76
99	Ireland	2010	-1.58	0.00	0.00	0.00	0.24	0.21	-0.21	0.64	0.38
100	Jamaica	2010	0.16	0.00	0.00	0.00	0.28	1.00	0.65	1.98	2.98
101	Lesotho	2010	0.46	0.00	0.00	0.00	0.16	-0.37	-0.76	-1.25	-0.96
102	Solomon Islands	2010	1.11	0.00	0.00	0.00	1.05	1.25	1.58	2.59	3.45
103	Yemen Arab Republic	2010	2.18	0.00	0.00	0.00	-0.39	-2.50	-4.99	-6.47	-6.44
104	Kenya	2011	-0.04	0.00	0.00	0.00	0.00	0.08	0.19	0.34	0.44
105	Macedonia	2011	0.03	0.00	0.00	0.00	1.42**	-0.26*	1.16*	0.35*	-1.04*
106	Portugal	2011	0.24	0.00	0.00	0.00	-0.85	-0.88	-1.46	-2.13	-2.13
107	Bangladesh	2012	0.07	0.00	0.00	0.00	0.27	0.36	0.80	0.86	1.09
108	Central African Republic	2012	0.03	0.00	0.00	0.00	-0.08	0.16	0.38	0.51	0.57
109	Gambia	2012	-0.17	0.00	0.00	0.00	0.27	2.24	3.43	4.51	5.74
110	Guinea	2012	1.38	0.00	0.00	0.00	-2.52	-4.29	-5.64	-7.30	-8.48
111	Jordan	2012	-0.75	0.00	0.00	0.00	-2.31	-4.15	-4.02	-5.19	-3.84
112	Morocco	2012	-0.05	0.00	0.00	0.00	-0.56*	-0.28	-0.44	-1.26	-2.78*
113	Cyprus	2013	-1.20	0.00	0.00	0.00	0.25	1.83	1.26	-0.30	-0.65
114	Pakistan	2013	-1.12	0.00	0.00	0.00	0.31	0.54	1.43	0.57	-0.27
115	Tunisia	2013	-0.56	0.00	0.00	0.00	-0.29	0.45	0.28	0.49	0.09
116	Albania	2014	-5.58	0.00	0.00	0.00	2.28	7.00	10.34	10.53	12.76
117	Chad	2014	0.32	0.00	0.00	0.00	-0.50	-0.91	-1.46	-1.98	-2.45
118	Ghana	2015	2.88	0.00	0.00	0.00	-0.81	-0.94	-0.72	-0.70	-0.92
119	Haiti	2015	-0.09	0.00	0.00	0.00	-0.02	-0.23	-0.45	-0.68	-1.22
120	Mozambique	2015	1.42	0.00	0.00	0.00	-0.62	0.14	1.22	2.52	2.17
121	Afghanistan	2016	-1.65	0.00	0.00	0.00	-0.01	0.22	-1.54	-4.29	-4.13
122	Egypt	2016	-1.64	0.00	0.00	0.00	0.08	-0.54	-4.02	-6.23	-6.09
123	Iraq	2016	-0.10	0.00	0.00	0.00	-0.18	-3.79**	-3.86**	-3.40**	-2.43**
124	Madagascar	2016	1.09	0.00	0.00	0.00	0.68	1.16	2.26	2.20	3.99
125	Moldova	2016	2.60	0.00	0.00	0.00	-1.41	-3.56	-5.17	-2.41	-0.48
126	Rwanda	2016	-0.33	0.00	0.00	0.00	-0.24	-0.38	-1.05	-3.60	3.02
127	Sri Lanka	2016	-1.84	0.00	0.00	0.00	-0.39	0.45	-2.87	-3.79	-3.48
128	Suriname	2016	-0.40	0.00	0.00	0.00	0.46	0.35	0.23	-0.31	-1.99
129	Cameroon	2017	1.20	0.00	0.00	0.00	-0.19	-0.18	0.33	1.33	0.78
130	Mauritania	2017	0.26	0.00	0.00	0.00	-0.33	-0.31	0.16	0.80	0.60
131	Mongolia	2017	-1.15	0.00	0.00	0.00	1.32	-0.29	3.34	2.79	0.11
132	Angola	2018	0.11	0.00	0.00	0.00	0.09	0.04	2.73	3.78	1.51
133	Barbados	2018	-0.22	0.00	0.00	0.00	-1.44*	-1.95*	-1.99	-1.97	-2.76

134	Armenia	2019	-0.01	0.00	0.00	0.00	1.78**	3.03**	2.64**	1.35**	0.97**
135	Congo	2019	-0.05	0.00	0.00	0.00	-0.32	3.00*	1.45*	1.57*	1.93*
136	Ecuador	2019	-3.93	0.00	0.00	0.00	-0.48	-5.45	-0.49	0.13	-0.46
137	Equatorial Guinea	2019	0.48	0.00	0.00	0.00	-0.18	-1.01	-0.96	0.21	0.68
138	Honduras	2019	3.05	0.00	0.00	0.00	-2.34	-1.06	1.00	0.82	-0.41
139	Pakistan	2019	0.17	0.00	0.00	0.00	1.24*	2.63*	2.94*	2.36*	2.28*
140	Gambia	2020	-0.53	0.00	0.00	0.00	2.10	1.35	0.98	0.49	
141	Costa Rica	2021	-2.19	0.00	0.00	0.00	-2.75	-3.20	-9.08		
142	Kenya	2021	1.44	0.00	0.00	0.00	0.44	0.81	1.16		
143	Madagascar	2021	2.00	0.00	0.00	0.00	0.33	0.96	1.27		
144	Moldova	2021	2.06	0.00	0.00	0.00	1.84	2.63	3.33		
145	Suriname	2021	-0.11	0.00	0.00	0.00	-0.54	-1.48	-1.12		
146	Serbia	2022	1.36	0.00	0.00	0.00	1.40	1.01			
147	Cape Verde	2022	-1.55	0.00	0.00	0.00	0.43	0.86			
148	Georgia	2022	1.57	0.00	0.00	0.00	-1.36	-1.52			
149	Macedonia	2022	-1.66	0.00	0.00	0.00	-1.46	-1.30			
150	Mozambique	2022	1.20	0.00	0.00	0.00	0.82	1.35			
151	Nepal	2022	-0.32	0.00	0.00	0.00	-0.68	-1.76			

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.3.2: Effects of IMF-Supported Programs on Gender Inequality: Female Labor Force Participation Rate, Robustness

A positive gender impact gap implies a higher female labor force participation rate in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Female Labor Force Participation (in percent, lagged), Reserve Coverage (lagged), Government Consumption, Reserves (Percent of External Debt).

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Bolivia	1994	-1.46	0.00	0.00	0.00	0.30	-0.14	-0.13	-0.34	-0.10
2	Central African Republic	1994	-0.72	0.00	0.00	0.00	0.36	-0.30	-1.06	-1.77	-2.48
3	Chad	1994	-0.01	0.00	0.00	0.00	-0.34*	-1.80*	-3.05*	-4.16*	-5.18*
4	Sierra Leone	1994	-0.28	0.00	0.00	0.00	0.31	-0.90	-2.02	-2.88	-3.63
5	Turkey	1994	-7.69	0.00	0.00	0.00	13.15	9.17	1.45	-6.89	-13.08
6	Uganda	1994	-0.13	0.00	0.00	0.00	0.27	-0.72	-1.64	-2.36	-2.97
7	Ghana	1995	-0.16	0.00	0.00	0.00	-0.26	-0.42	-0.60	-0.92	-1.37
8	Mexico	1995	0.35	0.00	0.00	0.00	0.11	-0.95	0.16	-0.61	-1.19
9	Madagascar	1996	0.14	0.00	0.00	0.00	0.22	0.62	0.09	1.57	2.70
10	Mozambique	1996	0.09	0.00	0.00	0.00	0.36	0.78	0.93	1.23	1.63
11	Tanzania	1996	-0.04	0.00	0.00	0.00	0.54*	0.94*	1.25*	2.32*	3.36*
12	Venezuela	1996	0.10	0.00	0.00	0.00	0.36	0.14	-0.62	-0.87	-0.88
13	Yemen Arab Republic	1996	0.47	0.00	0.00	0.00	0.11	0.60	1.85	2.32	0.59
14	Guinea	1997	0.58	0.00	0.00	0.00	0.29	0.59	1.20	1.69	2.54
15	Indonesia	1997	-0.95	0.00	0.00	0.00	-0.65	0.71	1.07	1.78	0.56
16	Thailand	1997	0.26	0.00	0.00	0.00	-0.01	-1.99	-3.11	-2.95	-2.88
17	Albania	1998	1.45	0.00	0.00	0.00	-0.61	-1.28	-1.33	0.38	-0.90
18	Brazil	1998	-0.92	0.00	0.00	0.00	0.51	1.64	2.96	7.04	6.51
19	Gambia	1998	0.28	0.00	0.00	0.00	0.06	0.01	0.09	1.90	1.02
20	Rwanda	1998	-0.50	0.00	0.00	0.00	0.08	0.26	0.55	2.35	1.73
21	Zimbabwe	1998	0.21	0.00	0.00	0.00	0.16	0.41	0.69	1.74	1.12
22	Cambodia	1999	-0.24	0.00	0.00	0.00	0.29	0.46	0.47	0.07	0.01
23	Colombia	1999	-0.36	0.00	0.00	0.00	-0.36	0.34	0.87	-0.51	0.66
24	Honduras	1999	0.67	0.00	0.00	0.00	-0.23	-2.02	-2.46	-2.96	-3.40
25	Turkey	1999	1.77	0.00	0.00	0.00	-1.81	-6.48	-7.39	-5.53	-6.10
26	Chad	2000	-0.09	0.00	0.00	0.00	-0.22	1.31	0.09	-1.79	-2.00
27	Ecuador	2000	5.23	0.00	0.00	0.00	3.60	-0.56	4.86	9.89	16.67
28	Gabon	2000	-0.03	0.00	0.00	0.00	-0.11	0.33	-0.08	-0.80	-0.50
29	Papua New Guinea	2000	0.11	0.00	0.00	0.00	0.61	-1.35	-4.02	-7.17	-8.97
30	Armenia	2001	0.35	0.00	0.00	0.00	-0.35	-0.87	-1.28	-1.58	-2.32
31	Azerbaijan	2001	2.03	0.00	0.00	0.00	-3.02	-5.37	-7.88	-9.39	-13.47
32	Georgia	2001	5.02	0.00	0.00	0.00	-2.50	-4.20	-4.29	-1.34	-10.63
33	Madagascar	2001	1.71	0.00	0.00	0.00	-1.09	-2.40	-3.08	-2.65	-5.68
34	Sierra Leone	2001	0.35	0.00	0.00	0.00	-0.30	-0.80	-0.86	0.43	-1.16
35	Sri Lanka	2001	-11.12	0.00	0.00	0.00	5.36	7.49	11.15	9.97	16.91
36	Vietnam	2001	2.97	0.00	0.00	0.00	-1.55	-2.51	-3.84	-2.91	-6.46
37	Democratic Republic of Congo	2002	-1.10	0.00	0.00	0.00	-0.54	-0.33	-0.14	-1.07	-1.03

38	Guatemala	2002	-0.60	0.00	0.00	0.00	0.06	0.02	0.11	-0.42	-0.19
39	Uganda	2002	-1.17	0.00	0.00	0.00	-0.29	0.15	0.41	-0.24	1.38
40	Bangladesh	2003	-0.29	0.00	0.00	0.00	0.00	0.29	-0.12	-0.53	-0.26
41	Bolivia	2003	1.86	0.00	0.00	0.00	0.21	0.43	0.60	4.40	1.60
42	Dominican Republic	2003	0.04	0.00	0.00	0.00	-3.70*	-2.98**	-3.06**	-2.38**	-2.33**
43	Nepal	2003	-0.14	0.00	0.00	0.00	-0.05	0.07	0.12	0.18	0.37
44	Paraguay	2003	0.33	0.00	0.00	0.00	-0.02	5.38	3.82	-0.49	2.44
45	Burundi	2004	-0.09	0.00	0.00	0.00	-0.39	-1.35*	-1.83	-0.47	1.00
46	Congo	2004	-0.30	0.00	0.00	0.00	0.23	-0.03	0.17	0.36	0.57
47	Honduras	2004	-0.08	0.00	0.00	0.00	-0.05	0.35	-3.14*	-4.37*	-3.32*
48	Mozambique	2004	0.23	0.00	0.00	0.00	-0.23	-1.14	-0.89	-1.15	-0.81
49	Ukraine	2004	0.00	0.00	0.00	0.00	0.05*	0.12*	0.10	0.16	-0.18
50	Cameroon	2005	-0.50	0.00	0.00	0.00	-0.28	0.14	-0.39	-2.09	-3.92
51	Chad	2005	-0.08	0.00	0.00	0.00	-0.09	-0.08	-0.50	-0.66	-0.66
52	Central African Republic	2006	-0.02	0.00	0.00	0.00	-0.19	-0.72*	-1.01*	-0.76*	0.16*
53	Haiti	2006	-0.32	0.00	0.00	0.00	0.21	0.18	1.02	1.72	2.58
54	Madagascar	2006	-0.64	0.00	0.00	0.00	0.20	-0.78	-0.25	0.70	1.50
55	Moldova	2006	-1.01	0.00	0.00	0.00	2.61	6.20	6.01	5.73	7.54
56	Sierra Leone	2006	-1.17	0.00	0.00	0.00	-1.39	-5.08	-5.16	-5.12	-4.50
57	Gambia	2007	-0.66	0.00	0.00	0.00	-0.09	0.55	0.65	1.03	1.53
58	Guinea	2007	-0.83	0.00	0.00	0.00	1.73	0.67	-1.91	-4.55	-4.38
59	Nicaragua	2007	-0.01	0.00	0.00	0.00	0.58**	1.47**	1.97**	2.93**	3.51**
60	Pakistan	2008	-0.37	0.00	0.00	0.00	0.67	1.29	1.42	1.55	1.63
61	Angola	2009	0.71	0.00	0.00	0.00	-0.55	0.87	0.13	-0.40	-0.45
62	Belarus	2009	0.25	0.00	0.00	0.00	0.23	1.29	1.31	2.10	3.37
63	Bosnia and Herzegovina	2009	0.65	0.00	0.00	0.00	-0.82	-0.36	-0.49	-0.32	-0.15
64	Comoros	2009	0.14	0.00	0.00	0.00	-0.24	-0.19	0.32	0.49	0.81
65	Costa Rica	2009	0.54	0.00	0.00	0.00	0.12	-0.87	1.47	6.17	5.93
66	Democratic Republic of Congo	2009	0.34	0.00	0.00	0.00	-1.09	-1.21	-1.55	-3.01	-4.05
67	El Salvador	2009	-0.49	0.00	0.00	0.00	0.66	3.01	0.97	2.06	2.61
68	Ghana	2009	0.48	0.00	0.00	0.00	-0.63	0.03	0.17	-0.55	-1.46
69	Guatemala	2009	0.17	0.00	0.00	0.00	0.01	0.15	-1.23	3.74	-2.02
70	Mongolia	2009	-0.98	0.00	0.00	0.00	-0.27	1.83	4.24	3.73	3.49
71	Mozambique	2009	1.03	0.00	0.00	0.00	-0.66	0.75	0.42	-0.22	-0.38
72	Romania	2009	-0.62	0.00	0.00	0.00	-0.78	-0.29	-0.49	-0.67	-0.34
73	Tajikistan	2009	-0.05	0.00	0.00	0.00	-0.29	0.38	1.08	1.11	1.51
74	Tanzania	2009	-0.35	0.00	0.00	0.00	-1.06	-0.06	-0.29	-1.58	-2.05
75	Jamaica	2010	0.40	0.00	0.00	0.00	0.69	1.45	1.05	2.67	3.92
76	Solomon Islands	2010	-0.33	0.00	0.00	0.00	3.23	3.60	4.04*	6.31	8.03*
77	Yemen Arab Republic	2010	2.32	0.00	0.00	0.00	0.14	-1.30	-3.64	-4.25	-4.09
78	Kenya	2011	-0.03	0.00	0.00	0.00	0.08	0.12	0.22	0.23	0.24
79	Macedonia	2011	0.42	0.00	0.00	0.00	1.10	0.18	1.37	0.52	-1.02
80	Bangladesh	2012	-0.39	0.00	0.00	0.00	-0.28	0.73	2.41	2.17	2.95
81	Central African Republic	2012	-0.05	0.00	0.00	0.00	-0.63*	-0.43	0.20	-0.12	0.31
82	Gambia	2012	-0.49	0.00	0.00	0.00	-0.38	1.36	2.79	3.14	4.37
83	Guinea	2012	1.44	0.00	0.00	0.00	-3.27	-6.48	-8.36	-10.83	-12.02
84	Jordan	2012	-0.73	0.00	0.00	0.00	-1.43	-1.49	-1.27	-1.49	-0.01
85	Morocco	2012	-0.09	0.00	0.00	0.00	-0.44	0.86	1.15	0.28	-0.88
86	Pakistan	2013	-1.00	0.00	0.00	0.00	0.52	-0.75	0.01	-1.93	-2.89
87	Tunisia	2013	-0.66	0.00	0.00	0.00	0.19	0.30	-0.40	-0.43	-1.12
88	Albania	2014	-5.54	0.00	0.00	0.00	3.18	8.44	11.65	12.85	15.30
89	Chad	2014	-0.36	0.00	0.00	0.00	-0.59	-1.08	-1.85	-2.02	-2.43
90	Ghana	2015	0.91	0.00	0.00	0.00	-0.50	-0.50	0.28	0.27	0.83
91	Haiti	2015	-0.11	0.00	0.00	0.00	1.13*	1.76**	2.87**	2.98**	2.47**
92	Mozambique	2015	0.36	0.00	0.00	0.00	0.34	1.07	3.09	4.03	5.48
93	Egypt	2016	-0.01	0.00	0.00	0.00	-0.31**	-1.03**	-5.89**	-9.15**	-11.77**
94	Madagascar	2016	1.20	0.00	0.00	0.00	0.76	0.93	2.00	2.38	4.61
95	Moldova	2016	2.57	0.00	0.00	0.00	-1.33	-3.27	-4.81	-2.36	0.00
96	Rwanda	2016	-1.04	0.00	0.00	0.00	-0.59	-0.51	-1.37	-3.97	1.59
97	Cameroon	2017	1.55	0.00	0.00	0.00	0.29	0.35	0.29	0.54	0.21
98	Mauritania	2017	0.59	0.00	0.00	0.00	-0.30	-0.31	0.36	2.37	1.87
99	Mongolia	2017	-0.98	0.00	0.00	0.00	1.43	-0.20	3.48	3.42	0.68
100	Angola	2018	1.27	0.00	0.00	0.00	0.30	-0.49	2.33	2.47	0.84

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.4.1: Effects of IMF-Supported Programs on Gender Inequality: Maternal Mortality Rate

A positive gender impact gap implies a higher rate of pregnancy-related deaths (per 100,000 live births) in the in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Maternal Mortality (lagged), Reserve Coverage (lagged).

	Country	Prog Yr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Burundi	2004	82.17	0.00	0.00	0.00	22.13	-6.53	8.61	-19.44	-70.37
2	Congo	2004	6.89	0.00	0.00	0.00	-3.59	-21.49	-4.37	-0.53	-24.85
3	Honduras	2004	11.93	0.00	0.00	0.00	-6.37	-3.59	-0.15	-4.76	-1.13
4	Mozambique	2004	28.45	0.00	0.00	0.00	20.38	16.75	14.25	6.42	5.20
5	Ukraine	2004	0.97	0.00	0.00	0.00	0.35	-0.31	5.24	6.89	7.32
6	Zambia	2004	35.59	0.00	0.00	0.00	29.41	47.87	64.46	77.58	108.21
7	Cameroon	2005	-44.26	0.00	0.00	0.00	78.32	96.63	93.62	110.15	142.74
8	Chad	2005	20.37	0.00	0.00	0.00	44.72	70.97	82.90	49.16	130.68
9	Iraq	2005	-4.20	0.00	0.00	0.00	-4.40	5.68	2.95	2.88	-4.85
10	Malawi	2005	25.56	0.00	0.00	0.00	-12.27	-15.80	44.40	127.31	215.46
11	Sao Tome and Principe	2005	8.27	0.00	0.00	0.00	12.38	18.03	7.42	7.64	23.98
12	Central African Republic	2006	-29.79	0.00	0.00	0.00	-12.71	33.84	9.53	48.16	-14.82
13	Grenada	2006	-10.27	0.00	0.00	0.00	10.39	19.89	27.23	26.44	24.49
14	Haiti	2006	-25.97	0.00	0.00	0.00	18.12	78.98	109.94	128.48	131.99
15	Madagascar	2006	-10.21	0.00	0.00	0.00	-10.48	-7.80	-8.99	4.44	1.39
16	Moldova	2006	4.65	0.00	0.00	0.00	-1.60	-4.89	-2.16	-4.90	-7.73
17	Sierra Leone	2006	-3.44	0.00	0.00	0.00	-83.30**	-164.01**	-328.25**	-346.15**	-419.61**
18	Gambia	2007	5.52	0.00	0.00	0.00	37.83	14.75	4.07	22.46	20.21
19	Guinea	2007	13.09	0.00	0.00	0.00	-26.97	-57.61	-33.11	-12.60	17.73
20	Nicaragua	2007	-1.30	0.00	0.00	0.00	0.45	-3.49	-12.43	5.23	9.33
21	Djibouti	2008	-6.61	0.00	0.00	0.00	-7.27	-48.53	-22.77	-8.55	-7.82
22	Hungary	2008	-0.09	0.00	0.00	0.00	0.18	0.30	1.89	3.39*	2.89*
23	Iceland	2008	0.25	0.00	0.00	0.00	-1.16	-1.35	-2.24	-4.12	-6.15
24	Liberia	2008	18.85	0.00	0.00	0.00	-45.99	-44.40	-10.47	41.06	59.10
25	Pakistan	2008	-8.61	0.00	0.00	0.00	0.36	24.19	20.74	22.46	26.88
26	Seychelles	2008	16.46	0.00	0.00	0.00	3.71	3.12	3.58	5.93	9.94
27	Angola	2009	24.88	0.00	0.00	0.00	-7.29	-28.80	-48.06	-70.29	-62.65
28	Belarus	2009	0.51	0.00	0.00	0.00	-2.45	2.95	5.04	7.53	10.24
29	Bosnia and Herzegovina	2009	0.65	0.00	0.00	0.00	-0.36	4.33	-0.26	-2.75	6.07
30	Comoros	2009	-19.75	0.00	0.00	0.00	-43.13	-16.52	-26.13	-6.51	-6.42
31	Costa Rica	2009	1.66	0.00	0.00	0.00	-0.68	-1.80	-3.85	-5.90	-4.82
32	Cote d'Ivoire	2009	-60.66	0.00	0.00	0.00	7.60	51.25	71.57	99.67	130.91
33	Democratic Republic of Congo	2009	10.26	0.00	0.00	0.00	-1.01	25.79	47.49	78.58	91.48
34	El Salvador	2009	-1.15	0.00	0.00	0.00	1.09	-4.27	2.74	2.96	1.89
35	Ethiopia	2009	52.01	0.00	0.00	0.00	-4.19	-71.98	-60.78	-116.61	-173.74
36	Ghana	2009	18.14	0.00	0.00	0.00	11.13	23.46	24.79	28.64	40.15
37	Guatemala	2009	11.80	0.00	0.00	0.00	-8.25	-1.72	-0.04	2.40	-5.34
38	Maldives	2009	-4.58	0.00	0.00	0.00	8.40	3.36	-0.47	-7.87	-6.60
39	Mongolia	2009	-5.70	0.00	0.00	0.00	1.57	9.66	-4.32	-6.41	-0.89
40	Mozambique	2009	-0.92	0.00	0.00	0.00	2.63	-14.49	-16.84	-25.23	-42.12*
41	Romania	2009	3.89	0.00	0.00	0.00	1.93	3.08	-2.51	-5.63	-4.66
42	Sri Lanka	2009	-0.807	0.00	0.00	0.00	-1.10	-2.85	-1.75	-4.40	-4.99
43	Tajikistan	2009	2.57	0.00	0.00	0.00	-0.24	-7.97	-8.07	-13.81	-19.74
44	Tanzania	2009	-14.82	0.00	0.00	0.00	-115.98	-89.70	-88.16	-127.05	-72.85
45	Greece	2010	-0.20	0.00	0.00	0.00	0.33	1.26	1.44	1.48	2.82
46	Ireland	2010	-0.23	0.00	0.00	0.00	0.39	1.07	0.57	-0.37	1.27
47	Jamaica	2010	9.60	0.00	0.00	0.00	-2.42	-5.88	-1.02	11.72	24.13
48	Lesotho	2010	69.67	0.00	0.00	0.00	112.85	170.26	137.18	101.77	181.48
49	Solomon Islands	2010	-5.24	0.00	0.00	0.00	3.41	2.81	11.90	7.61	10.83
50	Yemen Arab Republic	2010	13.79	0.00	0.00	0.00	5.89	-8.68	-16.96	12.14	3.31
51	Kenya	2011	8.80	0.00	0.00	0.00	35.37	66.93	110.05	111.83*	92.88
52	Macedonia	2011	0.83	0.00	0.00	0.00	-1.50	-3.34	-1.53	-1.82	-3.10
53	Portugal	2011	-0.54	0.00	0.00	0.00	-0.40	0.87	-0.29	0.01	1.17
54	Bangladesh	2012	36.23	0.00	0.00	0.00	-39.54	-29.23	-11.44	-0.11	-3.53
55	Central African Republic	2012	30.22	0.00	0.00	0.00	-59.52	-45.22	-48.56	-22.62	-55.60
56	Gambia	2012	44.47	0.00	0.00	0.00	10.64	42.67	19.89	58.82	41.26
57	Guinea	2012	-3.17	0.00	0.00	0.00	-51.38*	-62.94*	-86.73*	-66.05*	-95.67*
58	Jordan	2012	0.11	0.00	0.00	0.00	5.31**	3.71**	4.69**	6.37**	3.59**
59	Morocco	2012	3.73	0.00	0.00	0.00	-1.02	-2.42	2.37	0.06	-4.75
60	Cyprus	2013	0.67	0.00	0.00	0.00	8.31*	9.13*	14.11*	16.25*	22.90*

61	Pakistan	2013	18.15	0.00	0.00	0.00	-8.02	3.38	-11.17	-13.70	-22.95
62	Tunisia	2013	-1.24	0.00	0.00	0.00	7.25	6.32	4.25	8.92	11.51
63	Albania	2014	0.35	0.00	0.00	0.00	-0.21	0.58	2.72	3.04	1.96
64	Chad	2014	-69.92	0.00	0.00	0.00	-43.67	-8.59	38.02	6.58	6.34
65	Seychelles	2014	0.39	0.00	0.00	0.00	-1.00	-0.90	0.65	0.08	-0.82
66	Ghana	2015	3.71	0.00	0.00	0.00	4.81	-16.87	4.28	7.78	-23.60
67	Haiti	2015	33.61	0.00	0.00	0.00	6.78	6.20	-28.05	-19.65	-17.50
68	Mozambique	2015	13.42	0.00	0.00	0.00	-7.81	-24.44	-33.30	-50.49	-59.40
69	Afghanistan	2016	-42.79	0.00	0.00	0.00	3.20	-60.06	-46.53	-80.04	-54.77
70	Egypt	2016	0.091	0.00	0.00	0.00	0.47	0.55	0.23	0.05	0.10
71	Iraq	2016	-3.015	0.00	0.00	0.00	-15.12	-26.24	-31.02	-28.55	-34.64
72	Madagascar	2016	39.80	0.00	0.00	0.00	-47.63	-83.50	-84.88	-103.80	-107.66
73	Moldova	2016	0.64	0.00	0.00	0.00	-0.40	0.28	-0.94	-2.24	-0.69
74	Rwanda	2016	-6.72	0.00	0.00	0.00	-6.99	-26.34	-7.41	-5.32	-22.34
75	Sri Lanka	2016	0.50	0.00	0.00	0.00	1.64	2.44	1.16	1.51	-1.93
76	Suriname	2016	-4.22	0.00	0.00	0.00	-22.87	-25.77	-30.37	-23.29	-19.17
77	Cameroon	2017	-4.88	0.00	0.00	0.00	24.98**	10.18	22.25	54.78	
78	Guinea	2017	5.85	0.00	0.00	0.00	-51.58**	-35.92*	-49.64*	-38.50*	
79	Mauritania	2017	-35.97	0.00	0.00	0.00	1.44	18.16	-28.24	43.93	
80	Mongolia	2017	-0.74	0.00	0.00	0.00	2.33*	-2.88*	-8.32*	-7.24*	
81	Angola	2018	-2.08	0.00	0.00	0.00	-8.45	-40.53*	-34.07		
82	Barbados	2018	-1.15	0.00	0.00	0.00	-0.85	2.14	-7.21		
83	Malawi	2018	-66.67	0.00	0.00	0.00	17.78	-37.75	19.95		
84	Armenia	2019	1.73	0.00	0.00	0.00	0.96	-0.89			
85	Congo	2019	22.28	0.00	0.00	0.00	-82.09	-103.64			
86	Ecuador	2019	-2.12	0.00	0.00	0.00	3.32	-8.34			
87	Equatorial Guinea	2019	37.40	0.00	0.00	0.00	-1.90	-30.82			
88	Ethiopia	2019	9.72	0.00	0.00	0.00	-25.59	-23.59			
89	Honduras	2019	5.46	0.00	0.00	0.00	0.59	-7.16			
90	Liberia	2019	108.42	0.00	0.00	0.00	1.90	-7.12			
91	Pakistan	2019	-1.95	0.00	0.00	0.00	-13.56	-35.41			

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.4.2: Effects of IMF-Supported Programs on Gender Inequality: Maternal Mortality Rate, Robustness

A positive gender impact gap implies a higher rate of pregnancy-related deaths (per 100,000 live births) in the in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Maternal Mortality (lagged), Reserve Coverage (lagged), Government Consumption, Reserves (Percent of External Debt).

	Country	Prog Yr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Burundi	2004	35.30	0.00	0.00	0.00	-15.72	-8.19	21.75	7.68	-53.53
2	Congo	2004	-11.26	0.00	0.00	0.00	-10.12	-17.64	-1.29	5.77	-20.96
3	Honduras	2004	9.44	0.00	0.00	0.00	-6.97	-3.60	0.97	-2.93	1.46
4	Mozambique	2004	10.29	0.00	0.00	0.00	5.10	23.20	20.81	28.74	28.65
5	Ukraine	2004	1.58	0.00	0.00	0.00	0.48	-0.98	4.85	4.52	4.76
6	Cameroon	2005	19.27	0.00	0.00	0.00	67.17*	90.71*	117.15*	120.36*	157.45*
7	Chad	2005	51.27	0.00	0.00	0.00	85.68	187.72	272.57	242.86	287.30
8	Central African Republic	2006	19.56	0.00	0.00	0.00	44.09	111.04	84.58	43.33	112.23
9	Haiti	2006	-18.77	0.00	0.00	0.00	40.60	104.97	135.92	110.35	137.44
10	Madagascar	2006	-4.23	0.00	0.00	0.00	3.40	17.86	15.63	15.77	38.00
11	Moldova	2006	4.84	0.00	0.00	0.00	-6.49	-15.43	-20.24	-19.32	-21.11
12	Sierra Leone	2006	64.54	0.00	0.00	0.00	-44.42	-114.07	-292.11	-362.29	-295.40
13	Gambia	2007	-0.84	0.00	0.00	0.00	21.36**	-23.39**	-69.81**	-23.52**	3.74**
14	Guinea	2007	-12.29	0.00	0.00	0.00	-33.55	-73.73	-68.25	3.07	58.38
15	Nicaragua	2007	7.91	0.00	0.00	0.00	-2.22	-8.01	-24.36	-8.14	-5.12
16	Pakistan	2008	-3.15	0.00	0.00	0.00	0.38	15.95	16.59	20.03	25.88
17	Angola	2009	10.67	0.00	0.00	0.00	26.35	-13.60	-0.64	-19.81	-11.36
18	Belarus	2009	1.45	0.00	0.00	0.00	-1.89	1.60	-1.37	-4.37	2.38
19	Bosnia and Herzegovina	2009	0.81	0.00	0.00	0.00	-9.59	-0.87	0.00	1.83	6.32
20	Comoros	2009	-19.30	0.00	0.00	0.00	-45.38	-31.17	-24.96	-2.27	2.29
21	Costa Rica	2009	1.13	0.00	0.00	0.00	1.54	1.74	-0.79	2.19	-1.46
22	Democratic Republic of Congo	2009	-25.43	0.00	0.00	0.00	-34.23	13.09	52.38	82.20	132.53
23	El Salvador	2009	-2.74	0.00	0.00	0.00	5.07	-0.74	5.40	5.56	5.74

24	Ghana	2009	12.57	0.00	0.00	0.00	11.23	17.04	23.80	28.37	40.59
25	Guatemala	2009	10.82	0.00	0.00	0.00	-2.49	-3.04	0.85	2.09	-3.20
26	Mongolia	2009	-5.28	0.00	0.00	0.00	-1.65	4.57	2.03	9.99	2.97
27	Mozambique	2009	-12.11	0.00	0.00	0.00	-25.59	-29.72	-26.29	-40.74	-32.42
28	Romania	2009	3.76	0.00	0.00	0.00	4.79	3.07	1.66	1.43	0.94
29	Tajikistan	2009	-0.03	0.00	0.00	0.00	8.04**	1.19**	0.13**	-0.74**	-7.72**
30	Tanzania	2009	-6.61	0.00	0.00	0.00	-116.05	-92.24	-88.17	-116.20	-77.80
31	Jamaica	2010	9.22	0.00	0.00	0.00	-4.85	-4.83	-2.09	14.42	24.90
32	Solomon Islands	2010	-38.30	0.00	0.00	0.00	17.26	6.93	0.87	30.03	29.39
33	Yemen Arab Republic	2010	-9.45	0.00	0.00	0.00	9.52	24.48	32.09	38.24	43.67
34	Kenya	2011	8.59	0.00	0.00	0.00	15.36	31.01	83.42	54.81	20.52
35	Macedonia	2011	-1.31	0.00	0.00	0.00	0.89	0.57	1.13	2.11	1.21
36	Bangladesh	2012	17.58	0.00	0.00	0.00	-32.10	-36.94	-14.88	-7.10	-23.81
37	Central African Republic	2012	17.94	0.00	0.00	0.00	-15.75	62.74	73.59	116.63*	136.41*
38	Gambia	2012	48.41	0.00	0.00	0.00	16.66	60.04	36.88	78.21	70.10
39	Guinea	2012	2.62	0.00	0.00	0.00	-38.39*	24.50*	-2.85*	25.54*	41.83*
40	Jordan	2012	-2.19	0.00	0.00	0.00	5.51	2.08	4.43	8.67	4.28
41	Morocco	2012	-1.35	0.00	0.00	0.00	-1.38	-3.43	-0.22	-2.18	-11.00
42	Pakistan	2013	4.26	0.00	0.00	0.00	1.10	14.42	1.69	4.38	-10.30
43	Tunisia	2013	-0.78	0.00	0.00	0.00	7.49	3.79	1.70	4.40	7.19
44	Albania	2014	-1.74	0.00	0.00	0.00	-3.82	-5.69	-2.88	-7.18	-6.29
45	Chad	2014	-97.61	0.00	0.00	0.00	52.40	134.00	190.90	164.79	219.61
46	Ghana	2015	7.00	0.00	0.00	0.00	1.12	-22.11	-7.92	5.33	-29.61
47	Haiti	2015	51.52	0.00	0.00	0.00	-5.33	-2.07	-46.65	-18.87	-24.48
48	Mozambique	2015	24.13	0.00	0.00	0.00	-17.89	-36.41	-48.99	-68.10	-77.62
49	Egypt	2016	4.90	0.00	0.00	0.00	-2.91	-4.33	-3.38	-4.64	-4.68
50	Madagascar	2016	-4.35	0.00	0.00	0.00	-18.26	-48.10*	-43.38	-52.87	-82.15
51	Moldova	2016	5.53	0.00	0.00	0.00	-2.08	-2.88	-4.17	-7.47	-4.21
52	Rwanda	2016	-10.08	0.00	0.00	0.00	-8.32	-32.44	-4.91	-3.20	-33.55
53	Cameroon	2017	-13.96	0.00	0.00	0.00	21.99	8.47	29.27	52.79	
54	Guinea	2017	-5.56	0.00	0.00	0.00	-52.49	-25.46	-49.80	-29.91	
55	Mauritania	2017	-34.45	0.00	0.00	0.00	-13.08	16.48	-16.64	25.18	
56	Mongolia	2017	-1.69	0.00	0.00	0.00	1.92	-3.44	-9.49	-9.19	
57	Angola	2018	-2.40	0.00	0.00	0.00	-2.65	-39.03	-30.34		
58	Armenia	2019	1.15	0.00	0.00	0.00	0.18	-2.10			
59	Congo	2019	12.99	0.00	0.00	0.00	-60.31	-94.42			
60	Ecuador	2019	0.71	0.00	0.00	0.00	-1.27	-9.81			
61	Ethiopia	2019	12.35	0.00	0.00	0.00	-28.40	-38.60			
62	Honduras	2019	4.77	0.00	0.00	0.00	1.50	-3.24			
63	Pakistan	2019	-3.90	0.00	0.00	0.00	-6.53	-23.60			

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.5.1: Effects of IMF-Supported Programs on Gender Inequality: Primary Enrollment Gender Parity Index

A positive gender impact gap implies a higher ratio of girls to boys enrolled in public and private primary schools in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Primary Enrollment Gender Parity (lagged), Reserve Coverage (lagged)

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Bolivia	1994	-0.01	0.00	0.00	0.00	0.00	-0.01	0.03	0.06	0.07
2	Chad	1994	0.09	0.00	0.00	0.00	-0.07	-0.11	-0.26	-0.36	-0.36
3	Uganda	1994	-0.02	0.00	0.00	0.00	0.07	-0.01	0.00	-0.01	0.00
4	Mexico	1995	0.03	0.00	0.00	0.00	-0.01	0.00	0.03	0.02	0.02
5	Djibouti	1996	-0.02	0.00	0.00	0.00	-0.02	-0.03	-0.05	-0.09	-0.07
6	Tanzania	1996	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01
7	Guinea	1997	-0.02	0.00	0.00	0.00	0.00	-0.02	-0.04	-0.05	-0.07
8	Indonesia	1997	-0.01	0.00	0.00	0.00	0.01	-0.03	-0.01	-0.01	0.00
9	Korea	1997	0.02	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.01
10	Albania	1998	0.00	0.00	0.00	0.00	-0.03	-0.04	-0.02	0.02	0.02
11	Gambia	1998	-0.01	0.00	0.00	0.00	0.03	0.01	0.01	0.03	0.01
12	Chad	2000	0.03	0.00	0.00	0.00	-0.04	-0.08	-0.13	-0.19	-0.25
13	Ecuador	2000	-0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02

14	Lithuania	2000	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
15	Azerbaijan	2001	-0.04	0.00	0.00	0.00	0.01	0.00	-0.04	0.00	-0.02
16	Ethiopia	2001	0.02	0.00	0.00	0.00	-0.04	-0.05	-0.08	-0.03	0.02
17	Georgia	2001	-0.01	0.00	0.00	0.00	0.06*	0.08	0.07	0.04	0.06
18	Laos	2001	-0.01	0.00	0.00	0.00	-0.02*	-0.03	-0.05	-0.04	-0.04
19	Lesotho	2001	-0.03	0.00	0.00	0.00	-0.01	0.02	0.00	0.02	0.02
20	Uganda	2002	0.00	0.00	0.00	0.00	-0.01	0.00	-0.02	-0.02	-0.02
21	Bolivia	2003	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.02
22	Nepal	2003	-0.02	0.00	0.00	0.00	-0.01	-0.01	0.02	0.05	0.09
23	Paraguay	2003	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
24	Burundi	2004	0.00	0.00	0.00	0.00	0.01	0.03**	0.07*	0.05*	0.09*
25	Congo	2004	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.04	0.00	-0.02
26	Ukraine	2004	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
27	Cameroon	2005	-0.01	0.00	0.00	0.00	-0.03	-0.03	-0.02	-0.01	-0.02
28	Chad	2005	-0.04	0.00	0.00	0.00	0.00	0.00	-0.02	-0.01	-0.02
29	Central African Republic	2006	0.00	0.00	0.00	0.00	-0.00**	-0.01*	0.01**	-0.01**	-0.02**
30	Madagascar	2006	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
31	Gambia	2007	-0.03	0.00	0.00	0.00	0.02	0.03	0.01	0.00	0.02
32	Guinea	2007	-0.02	0.00	0.00	0.00	0.01	0.01	0.00	-0.03	0.02
33	Hungary	2008	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
34	Iceland	2008	0.01	0.00	0.00	0.00	0.00	-0.01	0.01	-0.02	-0.02
35	Pakistan	2008	-0.02	0.00	0.00	0.00	0.00	-0.02	-0.03	-0.05	-0.08
36	Seychelles	2008	0.02	0.00	0.00	0.00	-0.01	-0.01	0.02	0.01	-0.01
37	Belarus	2009	-0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
38	Costa Rica	2009	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.00
39	El Salvador	2009	0.00	0.00	0.00	0.00	-0.00*	-0.01*	-0.01*	-0.02*	-0.01*
40	Ethiopia	2009	-0.03	0.00	0.00	0.00	0.01	0.00	-0.01	-0.02	-0.03
41	Guatemala	2009	-0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.00
42	Maldives	2009	0.01	0.00	0.00	0.00	0.01	0.01	0.03	0.01	0.02
43	Mongolia	2009	0.00	0.00	0.00	0.00	0.00	-0.03	-0.03	-0.03	-0.03
44	Mozambique	2009	-0.02	0.00	0.00	0.00	0.00	-0.01	0.00	-0.02	-0.02
45	Sri Lanka	2009	0.00	0.00	0.00	0.00	-0.01*	-0.02*	-0.04*	-0.02*	-0.03*
46	Tajikistan	2009	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01
47	Tanzania	2009	0.01	0.00	0.00	0.00	0.01	0.03	0.03	0.02	0.04
48	Ireland	2010	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
49	Lesotho	2010	0.01	0.00	0.00	0.00	-0.03*	-0.03	-0.02	-0.02*	-0.04
50	Portugal	2011	0.02	0.00	0.00	0.00	0.01	-0.01	-0.02	-0.02	-0.01
51	Saint Kitts and Nevis	2011	-0.01	0.00	0.00	0.00	0.03	0.03	0.05	0.04	0.03
52	Gambia	2012	0.03	0.00	0.00	0.00	0.02	0.02	0.03	0.05	0.05
53	Guinea	2012	0.03	0.00	0.00	0.00	-0.02	-0.02	-0.06	-0.05	-0.09
54	Morocco	2012	0.00	0.00	0.00	0.00	0.01**	0.01**	0.00**	-0.01**	-0.01**
55	Cyprus	2013	0.00	0.00	0.00	0.00	0.00*	0.01	0.00	0.00	-0.01
56	Pakistan	2013	0.00	0.00	0.00	0.00	0.00	-0.05	-0.04	-0.06	-0.06
57	Tunisia	2013	0.00	0.00	0.00	0.00	-0.00*	-0.00*	0.00	0.00	-0.01*
58	Albania	2014	-0.01	0.00	0.00	0.00	0.02	0.01	0.02	0.02	0.03
59	Chad	2014	-0.04	0.00	0.00	0.00	-0.01	-0.01	-0.03	-0.04	-0.03
60	Seychelles	2014	-0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.03	0.05
61	Ghana	2015	-0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01
62	Mozambique	2015	0.00	0.00	0.00	0.00	0.01	0.00	0.00	-0.01	0.00
63	Sri Lanka	2016	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00
64	Suriname	2016	-0.02	0.00	0.00	0.00	-0.02	0.00	0.00	0.00	0.01
65	Mongolia	2017	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.5.2: Effects of IMF-Supported Programs on Gender Inequality: Primary Enrollment Gender Parity Index, Robustness

A positive gender impact gap implies a higher ratio of girls to boys enrolled in public and private primary schools in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Primary Enrollment Gender Parity (lagged), Reserve Coverage (lagged), Government Consumption, Reserves (Percent of External Debt).

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Azerbaijan	2001	0.00	0.00	0.00	0.00	0.00	-0.02	-0.05	-0.05	-0.08
2	Georgia	2001	0.00	0.00	0.00	0.00	0.04*	0.02*	-0.02*	-0.06*	-0.03*
3	Uganda	2002	-0.02	0.00	0.00	0.00	0.01	0.02	0.00	-0.02	0.00
4	Bolivia	2003	0.01	0.00	0.00	0.00	-0.01	0.00	0.01	-0.01	-0.05
5	Nepal	2003	-0.03	0.00	0.00	0.00	-0.01	-0.04	0.00	0.07	0.11
6	Paraguay	2003	0.00	0.00	0.00	0.00	-0.02	-0.01	0.02	0.01	-0.02
7	Burundi	2004	0.00	0.00	0.00	0.00	0.01*	0.01*	0.06*	0.04*	0.11*
8	Congo	2004	0.00	0.00	0.00	0.00	0.00*	-0.02*	-0.05*	-0.01*	-0.03*
9	Ukraine	2004	-0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
10	Cameroon	2005	0.00	0.00	0.00	0.00	-0.03	-0.02	-0.01	0.00	-0.01
11	Chad	2005	-0.04	0.00	0.00	0.00	0.00	0.01	0.04	0.01	0.01
12	Central African Republic	2006	0.04	0.00	0.00	0.00	-0.02	0.06	0.02	0.01	-0.04
13	Madagascar	2006	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
14	Gambia	2007	-0.03	0.00	0.00	0.00	0.05	0.05	0.03	0.03	0.05
15	Guinea	2007	-0.02	0.00	0.00	0.00	0.04	0.02	0.03	-0.02	0.02
16	Pakistan	2008	-0.01	0.00	0.00	0.00	-0.01	-0.04	-0.02	-0.06	-0.07
17	Belarus	2009	-0.02	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.01
18	Costa Rica	2009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
19	El Salvador	2009	0.00	0.00	0.00	0.00	-0.01**	-0.02**	-0.01**	-0.02**	-0.02**
20	Guatemala	2009	-0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.01
21	Mongolia	2009	0.00	0.00	0.00	0.00	-0.01	-0.04**	-0.03**	-0.03**	-0.04**
22	Mozambique	2009	-0.03	0.00	0.00	0.00	-0.01	-0.01	0.01	0.00	-0.01
23	Tajikistan	2009	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01
24	Tanzania	2009	0.00	0.00	0.00	0.00	0.01	0.03	0.03	0.02	0.03
25	Gambia	2012	0.03	0.00	0.00	0.00	0.01	0.00	0.01	0.06	0.04
26	Guinea	2012	0.03	0.00	0.00	0.00	-0.02	-0.04	-0.08	-0.05	-0.10
27	Morocco	2012	-0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
28	Pakistan	2013	-0.02	0.00	0.00	0.00	0.00	-0.05	-0.02	-0.05	-0.04
29	Tunisia	2013	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
30	Albania	2014	-0.01	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.02
31	Chad	2014	-0.03	0.00	0.00	0.00	-0.02	-0.04	-0.04	-0.06	-0.05
32	Ghana	2015	-0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
33	Mozambique	2015	0.01	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00
34	Mongolia	2017	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.6.1: Effects of IMF-Supported Programs on Gender Inequality: Secondary Enrollment Gender Parity Index

A positive gender impact gap implies a higher ratio of girls to boys enrolled in public and private secondary schools in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Secondary Enrollment Gender Parity (lagged), Reserve Coverage (lagged)

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Korea	1997	0.01	0.00	0.00	0.00	-0.03	-0.03	-0.03	-0.01	0.01
2	Bangladesh	2003	-0.06	0.00	0.00	0.00	0.00	-0.05	-0.02	-0.07	-0.06
3	Bolivia	2003	0.03	0.00	0.00	0.00	-0.01	0.01	0.00	-0.01	-0.01
4	Paraguay	2003	0.02	0.00	0.00	0.00	0.00	0.04	0.02	0.03	0.06
5	Ukraine	2004	0.01	0.00	0.00	0.00	0.07	-0.06	-0.02	-0.01	0.00
6	Cameroon	2005	0.01	0.00	0.00	0.00	0.00	0.06	-0.13*	-0.20*	-0.26*
7	Chad	2005	-0.07	0.00	0.00	0.00	0.06	0.03	-0.03	-0.08	-0.07
8	Hungary	2008	0.00	0.00	0.00	0.00	-0.02**	-0.01**	-0.02**	-0.02**	-0.01**
9	Iceland	2008	0.02	0.00	0.00	0.00	-0.04	-0.04	-0.06	-0.06	-0.07
10	Seychelles	2008	-0.02	0.00	0.00	0.00	0.02	-0.01	-0.07*	-0.06*	-0.08
11	Costa Rica	2009	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.03
12	El Salvador	2009	0.01	0.00	0.00	0.00	-0.01	-0.02	-0.04	-0.02	-0.02
13	Ethiopia	2009	0.00	0.00	0.00	0.00	0.03	0.02	0.07*	0.07	0.08*
14	Guatemala	2009	0.01	0.00	0.00	0.00	0.00	-0.03	-0.04	-0.02	-0.04
15	Mozambique	2009	0.00	0.00	0.00	0.00	0.02**	0.03**	0.06**	0.06**	0.05**
16	Romania	2009	0.02	0.00	0.00	0.00	-0.02	-0.02	-0.02	-0.03	-0.02
17	Tajikistan	2009	0.02	0.00	0.00	0.00	0.02	-0.04	-0.03	-0.03	-0.04
18	Lesotho	2010	-0.10	0.00	0.00	0.00	0.05	0.02	0.00	-0.02	-0.03
19	Portugal	2011	0.02	0.00	0.00	0.00	0.01	-0.01	-0.04	-0.05	-0.06
20	Saint Kitts and Nevis	2011	0.00	0.00	0.00	0.00	0.09*	0.05*	0.16*	0.00*	0.03*
21	Pakistan	2013	-0.01	0.00	0.00	0.00	-0.04	-0.02	-0.05	0.00	0.00
22	Albania	2014	0.01	0.00	0.00	0.00	-0.03	-0.03	-0.01	0.00	0.02
23	Chad	2014	-0.05	0.00	0.00	0.00	-0.12	-0.28	-0.18	-0.08	-0.09
24	Seychelles	2014	0.01	0.00	0.00	0.00	-0.05	-0.02	0.05	0.06	0.02
25	Ghana	2015	0.00	0.00	0.00	0.00	0.00	0.02*	0.02*	0.04*	0.04*
26	Mozambique	2015	0.00	0.00	0.00	0.00	-0.01*	0.04*	-0.00*	0.07*	0.07**
27	Cameroon	2017	0.00	0.00	0.00	0.00	0.01*	0.08*	0.11*	0.19*	0.48*

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.6.2: Effects of IMF-Supported Programs on Gender Inequality: Secondary Enrollment Gender Parity Index, Robustness

A positive gender impact gap implies a higher ratio of girls to boys enrolled in public and private secondary schools in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Secondary Enrollment Gender Parity (lagged), Reserve Coverage (lagged), Government Consumption, Reserves (Percent of External Debt)

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Cameroon	2005	0.10	0.00	0.00	0.00	-0.05	0.07	-0.09	-0.17	-0.24
2	Chad	2005	0.16	0.00	0.00	0.00	-0.04	-0.10	-0.03	-0.10	-0.06
3	Costa Rica	2009	0.01	0.00	0.00	0.00	0.02	0.00	-0.03	0.00	-0.02
4	El Salvador	2009	0.00	0.00	0.00	0.00	-0.02*	-0.01*	0.00*	-0.01	0.03
5	Guatemala	2009	0.01	0.00	0.00	0.00	0.01	-0.03	-0.04	-0.04	-0.06
6	Mozambique	2009	0.00	0.00	0.00	0.00	0.00	0.02	0.07	0.05	0.02
7	Romania	2009	0.02	0.00	0.00	0.00	0.00	-0.03	-0.06	-0.05	-0.07
8	Tajikistan	2009	0.02	0.00	0.00	0.00	0.02	-0.04	-0.05	-0.03	-0.09
9	Pakistan	2013	-0.07	0.00	0.00	0.00	-0.07	-0.02	0.01	0.05	0.08
10	Albania	2014	0.00	0.00	0.00	0.00	-0.02*	-0.02	0.00	0.00	0.02
11	Chad	2014	-0.04	0.00	0.00	0.00	-0.07	-0.12	-0.05	-0.02	-0.03
12	Ghana	2015	0.00	0.00	0.00	0.00	0.02	0.02	0.03	0.05	0.04
13	Mozambique	2015	-0.03	0.00	0.00	0.00	0.12	0.15	0.03	0.08	0.12

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.7.1: Effects of IMF-Supported Programs on Gender Inequality: Tertiary Enrollment Gender Parity Index

A positive gender impact gap implies a higher ratio of females to males enrolled in public and private post-secondary education in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Tertiary Enrollment Gender Parity (lagged), Reserve Coverage (lagged).

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Korea	1997	0.05	0.00	0.00	0.00	-0.01	-0.10	-0.16	-0.27	-0.34
2	Bangladesh	2003	0.07	0.00	0.00	0.00	0.12	-0.07	0.04	-0.19	-0.26
3	Mozambique	2004	-0.11	0.00	0.00	0.00	-0.06	-0.11	0.40	0.16	0.05
4	Ukraine	2004	0.01	0.00	0.00	0.00	0.01	0.02	0.01	-0.01	0.01
5	Madagascar	2006	0.02	0.00	0.00	0.00	-0.06	-0.12	-0.09	-0.11	-0.12
6	Moldova	2006	-0.06	0.00	0.00	0.00	0.01	-0.17	-0.05	-0.10	-0.11
7	Hungary	2008	-0.01	0.00	0.00	0.00	0.01	-0.01	-0.02	-0.06	-0.08
8	Iceland	2008	-0.02	0.00	0.00	0.00	0.01	0.06	0.02	0.02	0.01
9	Belarus	2009	0.02	0.00	0.00	0.00	-0.01	-0.02	-0.07	-0.09	-0.09
10	Bosnia and Herzegovina	2009	0.04	0.00	0.00	0.00	-0.04	-0.01	-0.06	-0.10	-0.15
11	El Salvador	2009	0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.03
12	Mongolia	2009	0.03	0.00	0.00	0.00	-0.04	0.00	-0.12	-0.15	-0.23
13	Mozambique	2009	-0.30	0.00	0.00	0.00	-0.05	-0.02	0.16	0.04	0.05
14	Romania	2009	-0.05	0.00	0.00	0.00	0.03	0.02	0.00	-0.05	-0.06
15	Tajikistan	2009	-0.05	0.00	0.00	0.00	0.01	0.00	0.01	-0.03	0.00
16	Ireland	2010	0.02	0.00	0.00	0.00	-0.08	-0.02	-0.07	-0.07	-0.04
17	Guinea	2012	-0.10	0.00	0.00	0.00	0.06	0.15	0.16	0.08	0.11
18	Morocco	2012	0.11	0.00	0.00	0.00	-0.01	-0.03	-0.04	-0.06	-0.11
19	Cyprus	2013	-0.02	0.00	0.00	0.00	0.02	0.10	0.05	-0.04	-0.08
20	Tunisia	2013	-0.03	0.00	0.00	0.00	0.02	0.03	0.02	0.06	0.07
21	Albania	2014	0.03	0.00	0.00	0.00	0.01	0.02	0.05	0.09	0.12
22	Ghana	2015	0.02	0.00	0.00	0.00	-0.02	-0.06	-0.12	-0.10	-0.05
23	Mozambique	2015	0.02	0.00	0.00	0.00	-0.04	-0.02	-0.07	-0.09	-0.11
24	Madagascar	2016	-0.03	0.00	0.00	0.00	0.01	0.02	0.03	0.02	-0.02
25	Moldova	2016	0.00	0.00	0.00	0.00	0.06	0.07	0.10	0.13*	0.17*
26	Rwanda	2016	0.00	0.00	0.00	0.00	-0.07*	-0.00*	-0.12*	-0.14*	-0.23**
27	Sri Lanka	2016	0.04	0.00	0.00	0.00	0.16	0.26	0.28	0.35	0.39
28	Mongolia	2017	-0.01	0.00	0.00	0.00	0.02	0.00	0.03	0.06	0.05

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table A.7.2 Effects of IMF-Supported Programs on Gender Inequality: Tertiary Enrollment Gender Parity Index, Robustness

A positive gender impact gap implies a higher ratio of females to males enrolled in public and private post-secondary education in IMF-supported programs compared to the control group.

Synthetic Control Predictors: Tertiary Enrollment Gender Parity (lagged), Reserve Coverage (lagged), Government Consumption, Reserves (Percent of External Debt).

	Country	ProgYr (t)	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
1	Madagascar	2006	0.04	0.00	0.00	0.00	-0.17	-0.26	-0.26	-0.31	-0.29
2	Moldova	2006	-0.01	0.00	0.00	0.00	-0.10*	-0.25*	-0.19*	-0.23*	-0.23*
3	Belarus	2009	0.04	0.00	0.00	0.00	-0.03	-0.03	-0.11	-0.09	-0.08
4	Bosnia and Herzegovina	2009	0.00	0.00	0.00	0.00	-0.03	-0.04	-0.16	-0.13	-0.18
5	El Salvador	2009	0.04	0.00	0.00	0.00	-0.01	0.03	0.03	0.03	0.07
6	Mongolia	2009	-0.13	0.00	0.00	0.00	0.00	-0.11	-0.27	-0.27	-0.41
7	Mozambique	2009	-0.22	0.00	0.00	0.00	-0.09	0.03	0.08	0.10	0.11
8	Romania	2009	-0.06	0.00	0.00	0.00	0.03	-0.01	-0.07	-0.11	-0.12
9	Tajikistan	2009	-0.05	0.00	0.00	0.00	0.00	-0.02	0.06	-0.02	0.04
10	Guinea	2012	-0.11	0.00	0.00	0.00	0.07	0.24	0.24	0.24	0.20
11	Morocco	2012	0.11	0.00	0.00	0.00	-0.02	-0.05	-0.06	-0.07	-0.11
12	Tunisia	2013	-0.03	0.00	0.00	0.00	0.01	0.03	0.01	0.06	0.07
13	Albania	2014	0.08	0.00	0.00	0.00	0.01	-0.05	0.03	0.05	0.10
14	Ghana	2015	0.05	0.00	0.00	0.00	-0.03	0.08	0.06	0.03	0.03
15	Mozambique	2015	0.09	0.00	0.00	0.00	-0.09	0.12	0.11	-0.04	-0.11
16	Madagascar	2016	-0.04	0.00	0.00	0.00	-0.03	-0.03	-0.02	0.00	-0.04
17	Moldova	2016	-0.03	0.00	0.00	0.00	0.04	0.02	0.07	0.12	0.17
18	Rwanda	2016	0.06	0.00	0.00	0.00	-0.06	0.06	-0.10	-0.16	-0.30
19	Mongolia	2017	-0.01	0.00	0.00	0.00	0.02	0.03	0.07	0.11	0.08

Note: *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Annex B. Data Sources

Table B.1: Data Sources, Variables, and Codenames

DATABASE	SOURCE	VARIABLES / DATABASE CODENAMES
WDI DATABASE (GENDER INDICATORS)	World Bank World Development Indicator (WB 2023a)	Adolescent Fertility Rate ○ WB: SP.ADO.TFRT Female/Male Labor Force Participation ○ WB: SL.TLF.CACT.FM.ZS Female Labor Force Participation ○ WB: SL.TLF.CACT.ZS Maternal Mortality Rate ○ WB: SH.STA.MMRT Primary Enrollment GPI ○ WB: SE.ENR.PRIM.FM.ZS Secondary Enrollment GPI ○ WB: SE.ENR.SECO.FM.ZS Tertiary Enrollment GPI ○ WB: SE.ENR.TERT.FM.ZS
WDI DATABASE (CONTROL VARS)	World Bank World Development Indicator (WB 2023a)	Total reserves in months of imports ○ WB: FI.RES.TOTL.MO Total reserves (% of total external debt) ○ WB: FI.RES.TOTL.DT.ZS Government final consumption expenditure (% of GDP) ○ WB: NE.CON.GOVT.ZS
IMF LENDING DATABASE	IMF commitment database	IMF-supported Programs https://www.imf.org/external/np/fin/tad/query.aspx
WORLD BANK INCOME CLASSIFICATION DATABASE	World Bank (WB 2023b)	World Bank Income Classification ○ See http://databank.worldbank.org/data/download/site-content/OGHIST.xls for details

References

- Abadie, A., 2005. "Semiparametric Difference-in-Differences Estimators." *Review of Economic Studies*, 72(1), pp.1-19.
- Abadie, A., 2021. "Using Synthetic Controls: Feasibility, data requirements, and methodological aspects." *Journal of Economic Literature*, 59(2), pp.391-425.
- Abadie, A., A. Diamond, and J. Hainmueller. 2010. "Synthetic Control Methods for Comparative Case Studies: Estimating the effect of California's Tobacco Control Program." *Journal of the American statistical Association*, 105(490), pp.493-505.
- Abadie, A., A. Diamond, and J. Hainmueller. 2015. "Comparative Politics and the Synthetic Control Method." *American Journal of Political Science*, 59(2), pp.495-510.
- Abadie, A. and J. Gardeazabal. 2003. "The Economic Costs of Conflict: A Case Study of the Basque Country." *American Economic Review*, 93(1), pp.113-132.
- Abadie, A. and G.W. Imbens. 2011. "Bias-corrected Matching Estimators for Average Treatment Effects." *Journal of Business & Economic Statistics*, 29(1), pp.1-11.
- Abadie, A. and J. L'Hour. 2021. "A Penalized Synthetic Control Estimator for Disaggregated Data." *Journal of the American Statistical Association*, 116(536), pp.1817-1834.
- Acemoglu, D., S. Johnson, A. Kermani, J. Kwak, and T. Mitton. 2016. "The Value of Connections in Turbulent Times: Evidence from the United States." *Journal of Financial Economics*, 121(2), pp.368-391.
- ActionAid. 2022. "The Care Contradiction: The IMF, Gender and Austerity." ActionAid International. Available at: [The Care Contradiction - The IMF Gender and Austerity.pdf \(actionaid.org\)](https://www.actionaid.org/publications/the-care-contradiction-the-imf-gender-and-austerity)
- ActionAid. 2023. "Fifty Years of Failure. The International Monetary Fund, Debt and Austerity in Africa." ActionAid International. Available at: [Fifty Years of Failure Full Report.pdf \(actionaid.org\)](https://www.actionaid.org/publications/fifty-years-of-failure-full-report)
- Athey, S. and G.W. Imbens. 2017. "The State of Applied Econometrics: Causality and Policy Evaluation." *Journal of Economic Perspectives*, 31(2), pp.3-32.
- Angrist, J.D. and J.S. Pischke. 2009. "Mostly Harmless Econometrics: An Empiricist's Companion." Princeton University Press.
- Ben-Michael, E., Feller, A. and J. Rothstein. 2022. "Synthetic Controls with Staggered Adoption." *Journal of the Royal Statistical Society Series B: Statistical Methodology*, 84(2), pp.351-381.
- Bluedorn, J., F. Caselli, N.-J. Hansen, I. Shitaba, and M. M. Tavares. 2021. "Gender and Employment in the COVID-19 Recession: Evidence on 'She-cessions'." IMF Working Paper No. 21/95, Washington DC: International Monetary Fund.
- Bradshaw, Y.W., R. Noonan, L. Gash, and C. Buchmann Serhsen. 1993. "Borrowing Against the Future: Children and Third World Indebtedness." *Social Forces*, Vol. 71(3), pp. 629-656.

- Cagatay, N. and S. Oezler. 1995. "Feminization of the Labor Force: The Effects of Long-Term Development and Structural Adjustment." *World Development*. Vol. 23(11), pp 1883-1894
- Cavallo, E., S. Galiani, I. Noy, and J. Pantano. 2013. "Catastrophic Natural Disasters and Economic Growth." *Review of Economics and Statistics*, 95(5), pp.1549-1561.
- Detraz, N., and D. Peksen. 2016. "The Effect of IMF Programs on Women's Economic and Political Rights." *International Interactions*, Vol. 42(1), pp. 81-105.
- Donald, K., and N. Lusiani. 2017. "The Gendered Costs of Austerity: Assessing the IMF's Role in Budget Cuts which Threaten Women's Rights." Bretton Woods Project.
- Dube, A. and B. Zipperer. 2015. "Pooling Multiple Case Studies Using Synthetic Controls: An Application to Minimum Wage Policies." Mimeo.
- Economist Intelligence Unit (EIU). 2010. "Women's Economic Opportunity. A New Pilot Index and Global Ranking from the Economist Intelligence Unit. Findings and Methodology." London, New York, Hong Kong, Geneva: Economist Intelligence Unit.
- Evans, B., A. Klemm, C. Osorio-Buitron, and M. Soto. 2024. "Tax and Expenditure Policy for Gender Equality". In "Gender Equality and Economic Development in Sub-Saharan Africa" (L. Kolovich and M. Newiak, eds.), Washington DC: International Monetary Fund.
- Firpo, S. and V. Possebom. 2018. "Synthetic Control Method: Inference, Sensitivity Analysis and Confidence Sets." *Journal of Causal Inference*, 6(2), pp. 2016-26.
- Flamini, V., D.B.P. Gomes, B. Huang, L. Kolovich, A. Puig, A. Zdzienicka. 2023. "Monetary Policy and Labor Market Gender Gaps." IMF Working Paper 2023/211, Washington DC: International Monetary Fund.
- Forster, T., A.E. Kentikelenis, B. Reinsberg, T.H. Stubbs, and L.P. King. 2020. "Globalization and Health Equity: The Impact of Structural Adjustment Programs on Developing Countries." *Social Science & Medicine*, Vol. 267, pp. 1-9.
- Forsythe, N., R.P. Korzeniewicz, and V. Durrant. 2000. "Gender Inequalities and Economic Growth: A Longitudinal Evaluation". University of Chicago Press.
- Galiani, S. and B. Quistorff. 2017. "The synth_runner package: Utilities to Automate Synthetic Control Estimation Using Synth." *The Stata Journal*, 17(4), pp.834-849.
- Gomes, D.B. 2024. "Gender and Business Cycles." Gender Notes No 2024/001, Washington DC: International Monetary Fund.
- Kamal, R.A. 2022. "On the Impact of IMF Loans and Conditions: A Gender Lens." *Future Journal of Social Science*, Vol. 1(1).
- Karamessini, M., and J. Rubery. 2014. "The Challenge of Austerity for Equality. A Consideration of Eight European Countries in the Crisis." *Revue de L'OFCE.*, Vol 2(133), pp. 15-39.

- Kellogg, M., M. Mogstad, G.A. Pouliot, and A. Torgovitsky. 2021. "Combining Matching and Synthetic Control to Tradeoff Biases from Extrapolation and Interpolation." *Journal of the American Statistical Association*, 116(536), pp.1804-1816.
- Klasen, Stephan, and Dana Schöler. 2011. "Reforming the Gender-Related Development Index and the Gender Empowerment Measure: Implementing Some Specific Proposals." *Feminist Economics*, Vol. 17, pp. 1-30.
- Kreif, N., Grieve, R., Hangartner, D., Turner, A.J., Nikolova, S. and M. Sutton. 2016. "Examination of the Synthetic Control Method for Evaluating Health Policies with Multiple Treated Units." *Health Economics*, 25(12), pp.1514-1528.
- Kuruc, K. 2022. "Are IMF Rescue Packages Effective? A Synthetic Control Analysis of Macroeconomic Crises." *Journal of Monetary Economics*, No. 127, pp. 38-53.
- Heinzel, M., A. Kern, S. Metinsoy, and B. Reinsberg. 2024. "International Monetary Fund Programmes and the Glass Cliff Effect." *European Journal of Political Research*, Vol. 63(1), pp 1-25.
- International Monetary Fund, 2003. "IMF Concludes 2003 Article IV Consultation with the Dominican Republic." Available at: <https://www.imf.org/en/News/Articles/2015/09/28/04/53/pn03123> [Accessed 11 August 2024].
- International Monetary Fund. 2019. "A Strategy for IMF Engagement on Social Spending." IMF Policy Paper No. 2019/016, Washington DC, International Monetary Fund.
- International Monetary Fund. 2022. "IMF Strategy Toward Mainstreaming Gender." IMF Policy Paper No. 2022/037, Washington DC, International Monetary Fund.
- International Monetary Fund. 2024a. "Operational Guidance Note for IMF Engagement on Social Spending Issues." IMF Policy Paper 2024/022, Washington DC, International Monetary Fund.
- International Monetary Fund. 2024b. "Interim Guidance Note on Mainstreaming Gender at the IMF." IMF Policy Paper No. 2024/003, Washington DC, International Monetary Fund.
- International Monetary Fund. 2024c. "Monitoring of Fund Arrangements Database (MONA)." Washington DC, International Monetary Fund. Available at: <https://www.imf.org/external/np/pdr/mona/index.aspx>
- Kern, A., B. Reinsberg, and C. Lee. 2024. "The Unintended Consequences of IMF Programs: Women Left Behind in the Labor Market." *The Review of International Organizations*, forthcoming
- Newiak, M., and T. Willems. 2017. "Evaluating the Impact of Non-Financial IMF Programs Using the Synthetic Control Method." IMF Working Paper 17/109, Washington DC, International Monetary Fund.
- Office of the High Commissioner for Human Rights (OHCHR). 2013. "Report of the United Nations High Commissioner for Human Rights on Austerity Measures and Economic and Social Rights." Geneva: Office of the High Commissioner for Human Rights.
- Organization for Economic Cooperation and Development (OECD). 2014. "Social Institutions & Gender Index: Methodological and Background Paper." Paris: OECD.

- Pandolfelli, L.E., J. Shandra, and J. Tyagi. 2014. "The International Monetary Fund, Structural Adjustment, and Women's Health: A Cross-National Analysis of Maternal Mortality in Sub-Saharan Africa." *The Sociological Quarterly*, Vol. 55(1), pp. 119-142.
- Peri, G., D. Rury, and J.C. Wiltshire. 2022. "The Economic Impact of Migrants from Hurricane Maria." *Journal of Human Resources*.
- Powell, Z.A., 2023. "Did California Act to Save Lives? AB 392 and Fatal Officer-involved Shootings." *Policing: A Journal of Policy and Practice*, Vol. 17.
- Reinsberg, R., A. Kern, M. Heinzl, and S. Metinsoy. 2024. "Women's Leadership and the Gendered Consequences of Austerity in the Public Sector: Evidence from IMF Programs." *Governance*, Vol. 37, pp. 303-321.
- Rosenbaum, P.R., 2005. "Heterogeneity and Causality: Unit Heterogeneity and Design Sensitivity in Observational Studies." *The American Statistician*, 59(2), pp.147-152.
- Shandra, J.M., Shandra, C.L., and B. London. 2010. "Debt, Structural Adjustment, and Non-Governmental Organizations: A Cross-National Analysis of Maternal Mortality." *American Sociological Association*, Vol. 16(2), pp. 217-245.
- Social Watch. 2012. "Measuring Inequity: The 2012 Gender Equity Index." Available here: <https://www.socialwatch.org/node/14365> [Accessed: August 15, 2024].
- Stotsky, J.G., S. Shibuya, L. Kolovich, and S. Kebhaj. 2016. "Trends in Gender Equality and Women's Advancement." IMF Working Paper 16/21. Washington DC, International Monetary Fund.
- United Nations. 2015. "The World's Women 2015: Trends and Statistics." New York: United Nations, Department of Economic and Social Affairs, Statistics Division. No. E.15.XVII.8.
- Thioune, F.K., G. Albertin, R. Kazandjian, and T. Wang. 2024. "COVID-19 and Gender Inequality: Impact in Southern Africa." In "Gender Equality and Economic Development in Sub-Saharan Africa" (L. Kolovich and M. Newiak, eds.), Washington DC: International Monetary Fund.
- Wiltshire, J.C., 2021. "Walmart Supercenters and Monopsony Power: How a Large, Low-wage Employer Impacts Local Labor Markets." Mimeo.
- Wooldridge, J.M. 2023. "Simple Approaches to Nonlinear Difference-in-Differences with Panel Data." *The Econometrics Journal*, 26(3), pp.C31-C66.
- World Bank, 2024. World Development Indicators Data Files. Available at: <https://databank.worldbank.org/source/world-development-indicators>
- World Economic Forum (WEF). 2024. "Global Gender Gap 2024." Geneva: World Economic Forum.
- Zuckerman, E. 2014. "The IMF and Gender: A Long Way to Go." In: *At Issue*. Bretton Woods Project.



PUBLICATIONS