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Abstract

Migration not only contributes to development through financial remittances, but also through flows of knowledge and through the diffusion of social, cultural and political norms and values. In fact, these more intangible contributions are more appreciated during economic and financial crises, as financial remittances become unstable or decrease in those circumstances. This paper, therefore, addresses the effect of migration on women's empowerment in Turkey. The number of women in parliament in Turkey is chosen as a gauge of women's empowerment and is explained by the emigration rate, the relative education of women to men, and a measure of democracy. Utilization of data over six decades from 1960 until 2011 gives the possibility that these series can be spuriously correlated. Therefore, the paper addresses the issue of spurious correlation in an analytical way. Spurious correlation is the risk of linking the share of women in parliament, for example, to the emigration rate when in fact there is no association. This study adopts the bounds testing procedure as a method to determine and to avoid spurious correlation. The results of bounds testing gives clear-cut evidence that women's empowerment, the share of women in parliament in the present context, is related to the emigration rate, the relative education of women and to a measure of democracy. The bounds-testing procedure is replicated for emigration flows by destination country groups such as European and other core OECD countries, Arab countries, and Russia and CIS (Commonwealth Independent States) countries. Again, it is found that the share of women in parliament is related to the country groups with the largest effect in European and core OECD countries. The results are robust for the inclusion of asylum seekers and refugees in the emigration data. These results have important policy implications for sending as well as for destination countries, implications which are discussed in the paper.

Keywords

1. Introduction[*]

The migration-development nexus considers "*three Rs*" – recruitment, remittances and return. Remittances are financial remittances, and the majority of migration and development research focuses on the effects of financial remittances on sending countries. However, migrants are exposed to different values, norms, narratives, and forms of behaviour in different host countries. The transfer of these different values, norms, narratives, and forms of behaviour, as well as the knowledge and skills that are acquired in host countries – termed social remittances – can have a substantial impact on the economic and human development of home countries. More importantly, social remittances are more stable and robust even during the financial and economic crisis. Figure 1 below shows the growth of financial remittances to Turkey and it is evident that financial remittances are rather unstable and fluctuate, since they are sensitive to the economic and financial situation in host countries and, therefore, they can be unstable or can decrease during economic downturns.

Figure 1: Growth of financial remittances to Turkey
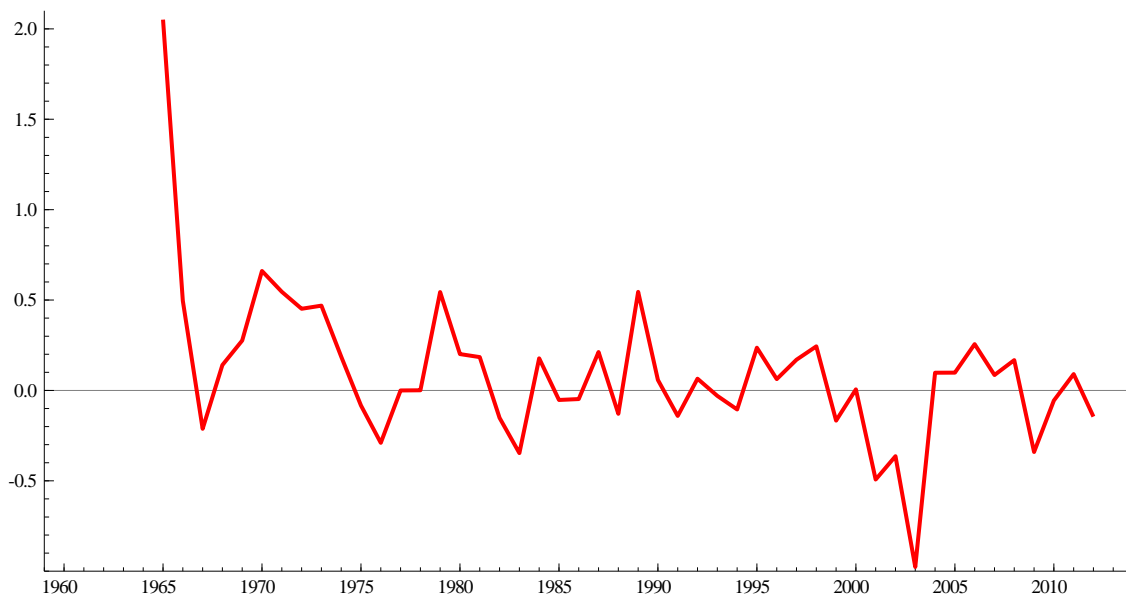
Therefore, this paper studies the impact of social remittances on a typical emigrant country – Turkey. First, this study contributes to the literature on social remittances, and hence to the literature on the migration-development nexus. Second, we examine Turkey, which has been an important migrant sending country since the 1960s, destination countries for Turkish citizens having varied over the years. Hence, the close investigation of emigration by destination countries will highlight how social norms and how the values of migrants in different destinations are formed differently. Third, the paper investigates the effect of emigration on women's empowerment – the share of women in the Turkish parliament along with other variables such as the relative education of women and a measure of democracy. To the best of our knowledge this is the first study which investigates social remittances in Turkey as well as the determinants of the share of women in parliament. This is an important task

given that one of the Millennium Development Goals is to promote gender equality and to empower women. Fourth, a study that is particularly relevant finds that migration to countries with higher woman political empowerment significantly increases the share of women in parliament in the home country (Lodigiani and Salomone, 2012). However, their data cover the 1960-2000 period and migration data is available only by decade. Our data are annual and cover the post-2000 period when there was a major shift in the parliamentary participation of women in Turkey. Fifth, the utilization of data over six decades from 1960 until 2011 gives the possibility that these series can be spuriously correlated. Therefore, the paper addresses the issue of spurious correlation in an analytical way. Spurious correlation entails the risk of linking the parliamentary share of women, for example, to the emigration rate when, in fact, there is no association. This study adopts the bounds testing procedure suggested by Pesaran, Shin and Smith (2001) to determine and thwart spurious correlation. The bounds testing procedure as outlined in Section 5 has more advantages than other methods and can detect the genuine relationship between the variables in question. This is, we stress again, the first study that employs the bounds testing procedure in the field of social remittances. Sixth, asylum seekers and refugees might have stronger views about their home countries and their institutions and, therefore, might transfer more social values, norms and ideas than labour migrants. However, it is also possible that they might break contact with the home countries and start a new life in a new country: in this case they, naturally, do not have an impact on the home country's institutions. Therefore, the patterns of behaviour of asylum seekers and refugees might differ from other migrants and, in order to take this into account, we also include asylum seekers and refugees in the emigration data and replicate the exercise. Last, but not least, the paper discusses the political implications of the findings for both sending and receiving countries, since the empirical results deliver important insights. Migrants are, indeed, exposed to different social norms and values in different destinations, and, therefore, transfer destination-specific norms and values that can have different and diverse impacts on sending countries.

The rest of the paper is organized as follows: section 2 describes the social remittances. Section 3 discusses women in politics in Turkey; section 4 describes the data and its sources; in Section 5 the bounds testing procedure of Pesaran *et al*. (2001) is described in detail; in Section 6 the test results as well as the final models are presented; and the final section concludes by delivering important policy implications.

2. Social Remittances

Social remittances are defined as *ideas, know-how, norms, values, knowledge, behaviour, practices and skills* that migrants bring with them or that they send back. These promote or deter development in home countries, (Levitt, 1998, 2001, and Levitt and Lamba-Nieves, 2011). Levitt (2001) argues that, in fact, social remittances are more important than financial remittances. She mentions four types of social remittances that are transferred from migrants to their home countries: norms, practices, identities and social capital.

Social remittances can be diffused by migrants as well as by refugees. They are transferred when migrants return or visit their home countries; when non-migrants visit their family and friends in the destination countries; or when a letter (or phone-call, fax, email, video...), is received (Levitt and Lamba-Nieves, 2011).

Social remittances do not only affect family relations, economic and social well-being, gender roles, class and race identity. They also have a substantial impact on political, social, cultural, economic and religious participation. They can challenge people's ideas, beliefs and views about, among other things, democracy, politics, institutions, health, culture, society, religion, technology, science, business, economics, education, and gender issues. For example, Jimenez (2008) points out that more migrants and non-migrants participated in politics as a result of international migration and that political power between actors shifted. Kapur (2008) also confirms that migrants change the

political power between different actors, take policy initiatives and affect political institutions in their home countries. Batista and Vicente (2011) show that current as well as return migrants increased political participation in Cape Verde. Docquier *et al.* (2011) find that emigration has a strong impact on democracy as well as economic freedom in home countries. Similarly, Spilimbergo (2009) demonstrates that foreign students diffuse democracy if their education is acquired abroad in democratic countries. Comparatively, in a very recent study it has been shown that higher votes for the communist party, at the district level in Moldova, are explained by migration to Russia, while a negative correlation is associated with migration to the EU (Omar Mahmoud *et al.*, 2013). Beine and Sekkat (2012) find that emigration has an impact on the quality of institutions[1] in the sending countries, and this depends especially on whether emigrants are located in countries with better quality institutions. For the diffusion of education, Stark (2002) shows that highly-skilled immigrants encourage the non-migrant population in their home countries to invest in education, which generates more human capital than if no brain drain had taken place.[2] Likewise, migration can affect gender imbalances in several ways. Belanger and Rahman (2013) show that, though the international migration of Bangladeshi women liberated women economically, it also reinforced a patriarchal ideology and increased women's vulnerability and subordination. Lindstrom and Munoz-Franco (2005) find that knowledge of contraceptive methods spread from migrants to non-migrants in rural Guatemala. Frank (2005) shows that international migration has a positive impact on infant health (birth weight) in Mexico, in spite of the loss of social support and high stress levels due to the migration of the family members. Mexican women with international migrant partners have, in fact, significantly lower rates of smoking, higher levels of exercise, and gain more weight during pregnancy than their counterparts in Mexico without migrant partners. However, the transfer of practices does not always result in uniformly positive changes in behavioural practices, as women with international partners were less likely to breastfeed their infants. Fargues (2007, 2011) find that birth rates in Morocco and Turkey went down, because migrants went to Europe, where they encountered small-size families and individualistic values. In contrast, in Egypt birth rates rose, because most Egyptian migrants went to the Gulf, where they encountered larger families than those left behind and deeper-rooted patriarchal values. Likewise, Bertoli and Marchetta (2013) show that Egyptian households with a returnee husband from another Arab country have a significantly larger number of children. Similarly, Beine, Docquier and Schiff (2013) demonstrate that the transfer of norms from low-fertility destination countries reduces fertility in migrants' home countries. These studies demonstrate that social remittances are, indeed, an important part of the migration experience.

3. Women in Politics in Turkey

Turkish women achieved political rights to elect and to be elected locally 3 April 1930 and nationwide 5 December 1934, well in advance of women in European countries such as France, Italy and Belgium. Until multi-party democracy in 1946, there was an unofficial quota of 4-5 percent for women in parliament. However, after the increased competition in politics in the 1950s, women's share in parliament dropped to 0.61 percent. The figure remained at 1-2 percent until the 1990s with the exception of the 1983 elections when the share rose to 3 percent. Since the mid-1990s, the share of women parliamentarians has increased. However, the figure remains low compared to other European countries. Several factors can explain the increase in women's parliamentary share in Turkey over the past decades. First, the Fifth Five Year Development Plan (1985-1990) and 'the General Directorate for the Status and Problems of Women' in 1990 recognised women's issues and aimed at strengthening the position of women in social, economic and political life, and at providing the equal

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[1]   They employ four indicators for the quality of institutions, namely, voice and accountability, government effectiveness, regulatory quality, and control of corruption.

[2]   See also Mountford (1997), Beine *et al.* (2001), Katz and Rapoport (2005) and Mariani (2007) for migration-induced human capital investment.

utilization of rights and opportunities. Second, criminal and civil law was reformed in 2002. The Turkish government gave, at this point, equal rights to women and men during marriage, divorce, and property rights. As a result of this reform, programmes were introduced to improve access to education for girls. Third, several measures were taken to increase schooling for girls, by the Turkish government and NGOs, (Caha, 2010). Third, the KA.DER association (The Association for the Support and Training of Women Candidates) was established in 1997 to support women candidates both within the political parties and also publicly at general elections, and to increase the number of women in politics and in decision making positions. Fourth, the Republican People's Party (RPR) introduced a gender quota of 25 percent in 1989 and increased it to 33 percent in 2012. Whereas, some parties such as the Justice and Development Party (JDP) had adopted soft gender quotas. Fifth, emigrants, by bringing back home social, cultural and political norms, values, ideas, and narratives from the more democratic destination countries, might have encouraged women's participation in politics in Turkey.

It is widely recognised that the participation of women in politics in Turkey was not limited by legal means: it was rather a question of cultural, traditional and mental obstacles (Kasapoglu and Ozerkmen, 2011; Cansun, 2013). Cansun (2013) finds that Turkish men do not want to share housework and child-care responsibilities with women, and that; therefore, Turkish women do not have time for politics. Politics is considered to be a male domain in Turkey, and it is believed that Turkish men are more natural politicians than Turkish women. More importantly, Turkish men would be jealous of their spouses if they worked in male-dominated occupations such as politics (Cansun, 2013). The following (invisible) barriers contribute to the low participation of women in politics in Turkey.

- Patriarchal structure: Turkish women follow their husbands or parents in political decision-making (Caporal, 1982).

- Turkish women view politics as an arena of lies, fraud, unfulfilled promises, and corruption and so prefer other occupations (Keskin, 1997; Kasapoglu and Ozerkmen, 2011).

- Turkish women are financially constrained and do not have much capital for political campaigns (Keskin, 1997; Kasapoglu and Ozerkmen, 2011; Cansun, 2013).

- The low level of education among Turkish women hinders their participation in an elitist democracy (Koray, 1995; Kasapoglu and Ozerkmen, 2011).

- The Islamist view (*fitrat*) argues that women should carry out family roles while men deal with other issues (Ergil, 1975).

However, the increase in women's parliamentary share in Turkey over the past decades suggests that these obstacles might be fading away: the patriarchal structure is weakening and Turkish women are entering into a more independent decision-making processes. This paper, therefore, questions whether Turkish emigration has contributed to the change in mentality/attitude towards the participation of Turkish women in politics, along with other important variables, such as the relative education of women and a measure of democracy. Thus, we question whether Turkish migrants, by transferring cultural, social and political ideas, norms and values from the host countries, have contributed to the transformation of the political lives of women in Turkey.

4. Data

We will study the determinants of women's parliamentary share in Turkey with the emigration rate as well as with other important potential variables, such as the relative education of women and a measure of democracy. The main variables in our analysis are:

The share of women in the Turkish parliament was obtained from the Grand National Assembly of Turkey.

The emigration rate is defined as the number of Turkish migrants divided by the Turkish population. Emigration data were gathered from the General Directorate for Security in Turkey, whereas the data on the Turkish population were obtained from the Turkish Statistical Institute (TSI). The emigration data consist of Turkish nationals who are resident in Turkey as well as abroad. The emigration of Turkish nationals who are resident abroad is especially relevant in our case, as they are the ones most likely to transfer social, cultural, and political ideas, norms and values to Turkey, by having regular contacts with Turkish citizens left behind. Although, the majority of emigration data covers labour migrants, the data also include students as well as visitors for the following purposes: culture, holiday, relatives, sports, entertainment, business, and medical treatment.

The education variable for women is defined as the ratio of girls to boys in primary and secondary schools[3] and was gathered from the Education Statistics of the TSI.

The Freedom House Index for Liberal Rights[4] is used as *a measure of democracy*. The index covers the main attributes of the Universal Declaration of Human Rights. The civil liberties questions consist of four sub-categories: Freedom of Expression and Belief (4 questions), Associational and Organizational Rights (3 questions), Rule of Law (4 questions), and Personal Autonomy and Individual Rights (4 questions).[5] Then, the index is constructed by summing up each country's sub-category. The index ranges from 1 to 7. Countries with a rating of 1 enjoy liberties in freedom of expression, assembly, association, education, and religion. Countries with a rating of 7 have few or no civil liberties and, therefore, do not have freedom of expression or association. They do not protect the rights of detainees and prisoners, and often they control or dominate economic activity. According to this index Turkey currently protects, at least to a moderate extent, almost all civil liberties: 'Partly-Free'. This is a fair assessment.

The data on *emigration by county of destination* were gathered from the General Directorate for Security in Turkey. The destination countries are grouped into three groups:

- *EU* and *OECD Countries*: Austria, Germany, Belgium, Denmark, Finland, France, the Netherlands, the UK, Ireland, Spain, Sweden, Switzerland, Italy, Iceland, Luxemburg, Norway, Portugal, Greece, Australia, USA, Japan, Canada, New Zealand, and Israel.
- *Arab Countries*: Iraq, Lebanon, Syria, Saudi Arabia, Oman, Jordan, United Arab Emirates, Qatar, Kuwait, Yemen, Bahrain, Algeria, Morocco, Egypt, Tunisia, and Libya.
- *Russia and CIS countries*: Russia, Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, and Turkmenistan.

We also included *Asylum Seekers and Refugees* in the emigration data and repeated the exercise as a robustness check. The data on *Asylum Seekers and Refugees* come from the UNHCR Population Statistics, and are available by country of destination.

Other important potential variables, such as *per capita* real GDP, were also considered in the estimates, but they did not produce any significant results. The labour force participation of women was another important potential variable, but this variable is only available from 1988, and it is strongly correlated with the relative education of women.[6]

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[3] We also tried the ratio of women to men in tertiary education in Turkey, but this data did not produce any significant results.

[4] We also tried the Freedom House Index for Political Rights, POLITY IV, and Economic Freedom of the World as a measure of democracy, but the Freedom House Index for Liberal Rights produced better results.

[5] http://www.freedomhouse.org/report/freedom-world-2011/methodology

[6] In our study, we also considered the possible effects of emigration on the relative education of women and also on the measure of democracy. Therefore, we took into account the indirect effects of emigration on women's parliamentary

We were, therefore, able to analyse the determinants of the parliamentary share of women in Turkey with the emigration rate, the relative education of women and a measure of democracy. Importantly, figures 2, 5, 8, and 11 show the salient features of the data that the share of women in parliament has certain common features with the emigration rate, the relative education of women and the democracy variable. This visual inspection suggests that the share of women in parliament, the emigration rate, the relative education of women and the democracy variable tend to move together and leaves statistical methods to verify this conclusion. For example, an increase in women's parliamentary share in the post-1990 period matches closely the increases in the emigration rate and the relative education of women in figures 2 and 5.[7] However, over the entire period, the share of women in parliament and the relative education of women seem to be highly correlated. Therefore, we expect to see the largest effect on women's parliamentary share from the relative education of women. In addition, democratization in the post-2000 period seems also to contribute to women's empowerment. Likewise, the share of women in parliament, emigration share to the EU and OECD countries, and emigration share to the Arab countries all tended to increase in the late-1960s, 1970s and the early-1980s. Therefore, the salient features of the data and their relationship over the entire period suggest a formal econometric analysis to determine these relationships.

5. Method

The bounds testing procedure of Pesaran *et al*. (2001) which is used to address the spurious correlation problem as well as to detect a long-run relationship between the variables of interest will be presented in this section. The choice of this procedure can be justified based on the following reasons. First, the bounds testing procedure has a straightforward applicability, as the regressors can be either I(1), I(0), or mutually cointegrated. This is of great importance, since the different unit root tests can deliver different results with respect to the order of the integration of the relevant variables, yielding inconclusive results as well as pre-testing bias. Second, the bounds testing procedure allows a joint estimate of short- and long-run effects, since it is based on the unrestricted error correction model. Banerjee *et al*. (1993, 1998) show that joint estimates have better statistical properties than the two-step Engle Granger procedure, which shifts the short-run dynamics into the error term. Third, the bounds testing procedure performs very well in small samples, (Narayan, 2005). In small samples, other methods such as the more popular Full Information Maximum Likelihood Method (Johansen, 1995) perform poorly.

The bounds testing procedure will, in the present context, be performed by relating women's parliamentary share to the emigration rate, the relative education of women and a measure of democracy according to a vector autoregressive (VAR) model of order *p* that can be further reduced to the following conditional error correction model (ECM):

$$
\begin{aligned}
\Delta WP_t = {}& \alpha + \theta_0 WP_{t-1} + \theta_1 Emig_{t-1} + \theta_2 Educ_{t-1} + \theta_3 FHI_{t-1} + \sum_{i=1}^{p} \gamma_i \Delta WP_{t-i} + \sum_{i=0}^{p} \lambda_i \Delta Emig_{t-i} \\
& + \sum_{i=0}^{p} \beta_i \Delta Educ_{t-i} + \sum_{i=0}^{p} \varphi_i \Delta FHI_{t-i} + \omega' D_t + \varepsilon_t
\end{aligned}
\tag{1}
$$

(Contd.) —————————

share in Turkey as well as the correlation between the independent variables. However, we found that emigration had no effect on the relative education of women, and on the measure of democracy; therefore, the independent variables are not correlated.

[7] Figures 2 and 5 do not differ significantly in terms of emigration data: without and with asylum seekers and refugees. Thus, the inclusion of asylum seekers and refugees in our emigration data does not change the main pattern of the emigration data. Similarly, the inclusion of asylum seekers and refugees to the emigration data by destination countries in figures 8 and 11 does not make much of a difference. These observations are also confirmed by similarities in the coefficient estimates of emigration rates with and without asylum seekers and refugees.

WP, *Emig*, *Educ* and *FHI* denote, respectively, women's parliamentary share, the ratio of emigration to Turkish population, girls to boys ratio in primary and secondary schools, and the Freedom House Index for liberal rights. The lagged values of *WP, Emig, Educ,* and *FHI* (are in *logs*) present, respectively, a long-run relationship in levels. α and D_t are the deterministic terms; constant and dummy variables. The short-run dynamics is represented by lagged values of ΔWP_t and current and lagged values of $\Delta Emig_t$, $\Delta Educ_t$ and ΔFHI_t. The conditional long-run elasticities of women's parliamentary share with respect to *Emig, Educ* and *FHI* are given by, respectively, $-\theta_1/\theta_0$, $-\theta_2/\theta_0$ and $-\theta_3/\theta_0$ (Banerjee *et al.*, 1998).

The bounds testing procedure utilizes the conventional *F*-test for testing the null hypothesis $H_0 : \theta_0 = \theta_1 = \theta_2 = \theta_3 = 0$. Although Pesaran *et al.* (2001) provide a set of asymptotic critical values, generated from 1,000 bootstraps, these values are not appropriate in our case due to our small sample size. We, therefore, employ the critical values simulated in Narayan (2005) for the hypothesis testing for a small sample size.

Two sets of critical values are important for the hypothesis testing. The first set is *the lower bound*, applicable when all regressors are I(0). The second is *the upper bound*, applicable when all regressors are I(1). If the calculated *F*-statistic falls below *the lower bound*, the null hypothesis of no relationship between women's parliamentary share, and the emigration rate, the relative education of women and a measure of democracy cannot be rejected. However, if the calculated *F*-statistic exceeds *the upper bound*, the null hypothesis of no long-run relationship between the variables of our interest is rejected. Both cases hold irrespective of the order of integration of the regressors. Finally, if the *F*-statistic falls within *the lower* and *upper critical bounds*, the order of integration of the variables must be determined in order to draw conclusive inference.

6. Test Results and the Final Models

Equation (1) was estimated for the four cases: (i) the emigration rate is defined as emigration divided by the Turkish population; (ii) data on asylum seekers and refugees are included in the emigration data, and the emigration rate is defined as emigration including asylum seekers and refugees divided by the Turkish population; (iii) emigration data are grouped into three groups according to destination countries; and (iv) data on asylum seekers and refugees are included in these three destination groups.

6.1 Aggregate Emigration without Asylum Seekers and Refugees

As a starting point, we define the lag order *p* for the Equation (1). Table (1) displays the results of the lag order *p* selection procedure. The information criteria (Akaike, AIC, and Schwarz, SIC) and the Lagrange Multiplier statistic testing for remaining autocorrelation up to the first, fourth, and sixth orders in regression residuals are used for the lag order selection. The data cover the time period from 1972 until 2011, as the Freedom House Index is available only from 1972. Both information criteria (AIC and SIC) select *p=5*. In addition, there is no evidence of any remaining autocorrelation in the regression residuals, when *p=5*. Given the results from the information selection criteria and the evidence of no residual autocorrelation, the model with *p=5* is chosen. The last column of Table 1 reports the corresponding *F*-test statistics for the joint hypothesis $H_0 : \theta_0 = \theta_1 = \theta_2 = \theta_3 = 0$ utilising the finite-sample critical values reported in Narayan (2005) for *T=35*, corresponding to case III – with unrestricted constant and no linear deterministic trend.

As shown in Table 1 the null hypothesis of no long-run relationship between women's parliamentary share, the emigration rate, the relative education of women, and a measure of democracy can be decisively rejected for *p=3* and *p=5* at the 1% significance level. For *p=1*, *p=2*, and *p=4* the test statistics falls below the lower bound at the 1% significance level, indicating that there is no long-run relationship between the variables of interest.

Table 1: Lag order selection for the model with aggregate emigration data

p	AIC	SIC	AR(1)	AR(4)	AR(6)	$F^{III}_{H_0:\theta_0=\theta_1=\theta_2=\theta_3=0}$
1	-2.618	-2.058	0.215	0.063	0.035	5.655^{++}
2	-2.604	-1.864	0.012	0.037	0.086	3.888^{++}
3	-3.315	-2.392	0.149	0.098	0.300	9.106^{***}
4	-3.187	-2.076	0.031	0.010	0.012	3.521^{++}
5	**-5.005**	**-3.927**	0.059	0.494	0.401	59.204^{***}

Notes: p is the lag order of the underlying VAR model for the conditional ECM of Equation (1). AIC and SIC are, respectively, the Akaike and Schwartz Information Criteria. AR(1), AR(4), and AR(6) are the p-values of the Lagrange Multiplier (LM) test statistics for testing, respectively, for residual autocorrelation of orders up to one, four, and six. Bold entries represent the preferred lag order. $F^{III}_{H_0:\theta_0=\theta_1=\theta_2=\theta_3=0}$ is the F-test statistic for the null hypothesis $H_0 : \theta_0 = \theta_1 = \theta_2 = \theta_3 = 0$ using the finite-sample critical values simulated in Narayan (2005, p. 1988) for $T=35$ corresponding to case III – with unrestricted constant and no linear deterministic trends. '***' indicates that the null hypothesis can be rejected at the 1% significance level. '++' indicates that the test statistic falls below the lower bound at the 1% significance level, therefore, the null hypothesis of no relationship in levels cannot be rejected.

After establishing the existence of a long-run relationship between women's parliamentary share, the emigration rate, the relative education of women, and a measure of democracy, we estimate the coefficients of interest as follows: we start with an error-correction model corresponding to $p=5$; delete the insignificant augmentation lags; and arrive at the parsimonious model in Equation (2) (standard errors in parentheses, and error probabilities in brackets). In the model below (2), $D2002_t$ denotes an impulse dummy that is equal to 1 in 2002 and zero otherwise, since an outlier in 2002 was detected as those residuals exceeding regression standard error by factor two in the estimated equation (1). The dummy, in 2002, justifies a decrease in women's parliamentary share in that year that cannot be explained by the emigration rate, the relative education of women, and a measure of democracy.[8]

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[8] In 2002, various political measures were taken to improve the social, economic and political status of women in Turkey; however, we would expect these measures to have a positive impact on women's parliamentary share. Therefore, this dummy cannot represent political changes either.

$$\Delta WP_t = -2.144 - 1.909 WP_{t-1} + 0.935 Emig_{t-1} + 13.672 Educ_{t-1} + 0.474 FHI_{t-1}$$
$$\text{se} \quad (0.345) \ (0.159) \qquad (0.169) \qquad\qquad (1.614) \qquad\qquad (0.151)$$

$$+ 0.768 \Delta WP_{t-1} - 0.203 \Delta WP_{t-2} - 0.198 \Delta WP_{t-4} + 0.293 \Delta WP_{t-5}$$
$$\text{se} \qquad (0.126) \qquad\quad (0.114) \qquad\quad (0.095) \qquad\quad (0.082)$$

$$- 1.253 \Delta Emig_t - 2.467 \Delta Emig_{t-1} - 0.644 \Delta Emig_{t-3} + 0.650 \Delta Emig_{t-4}$$
$$\text{se} \qquad (0.261) \qquad\quad (0.322) \qquad\qquad (0.278) \qquad\qquad (0.372)$$

$$\text{(2)}$$

$$+ 0.346 \Delta Emig_{t-5} + 11.627 \Delta Educ_t + 1.952 \Delta Educ_{t-2} + 21.604 \Delta Educ_{t-3}$$
$$\text{se} \qquad (0.201) \qquad\qquad (2.726) \qquad\quad (2.563) \qquad\qquad (2.362)$$

$$+ 10.799 \Delta Educ_{t-4} + 18.962 \Delta Educ_{t-5} + 1.006 \Delta FHI_t + 0.346 \Delta FHI_{t-2}$$
$$\text{se} \qquad (2.778) \qquad\qquad (3.295) \qquad\qquad (0.223) \qquad\quad (0.170)$$

$$+ 0.381 \Delta FHI_{t-3} + 0.614 \Delta FHI_{t-5} - 0.412 D2002_t$$
$$\text{se} \qquad (0.134) \qquad\quad (0.139) \qquad\qquad (0.098)$$

$$R^2 = 0.982, \ F(23,10) = 24.33[0.000], \ T = 34$$
$$F^{AR(1-1)}_{(1,9)} = 4.689[0.058], \quad F^{ARCH(1)}_{(1,8)} = 0.466[0.514]$$

$$\chi^{2Norm}_{(2)} = 0.965[0.617], \quad F^{RESET}_{(1,9)} = 1.528[0.248]$$

The model in (2) passes all the standard specification tests such as tests for no residual autocorrelation, for no residual ARCH effects, for residual normality and the RESET test for functional form misspecification.[9] This suggests that this parsimonious model explains women's parliamentary share very well over the period under investigation, a period that was characterized by several national political and economic crises, and major legislative and social changes. This is further supported by the close match between actual and fitted values shown in the top panel of Figure 3; and the corresponding cross-plot is shown in the right top panel. The estimated regression residuals do not show any signs of misspecification in the left bottom panel of Figure 3. The autocorrelation function up to fifth order which is displayed in the right bottom panel takes small values that, moreover, change signs. Finally, Figure 4 shows the values of the one-step, breakpoint, and forecast Chow test statistics scaled by their respective 1% critical values (Doornik and Hendry, 2001). These tests show no signs of model instability.

According to Equation (2), the long-run elasticities of women's parliamentary share with respect to the emigration rate, the relative education of women and a measure of democracy are, respectively, 0.49, 7.16 and 0.25. The largest effect comes from the relative education of women; 1% increases in the ratio of girls to boys in primary and secondary schools increases women's parliamentary share by 7%. This is a very large effect. Similarly, 1% increases in emigration rate increases the share of women in parliament by 0.50%. This is also a significant impact. Thus, emigration contributes to women's empowerment in Turkey. In addition, 1% increases in the measure of democracy increases women's parliamentary share by 0.25%, suggesting democratization encourages the empowerment of women.

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[9] Even though the final model has 34 observations and 24 parameters, therefore 10 degrees of freedom in estimates, the sample size is only one of the factors that determine how much information appears in the sample, see Campos and Ericsson (1999). Figures 2, 5, 8 and 11 show that the variability of the data, and hence the informational context of the data are very high. In addition, the large *t*-ratios suggest that over-parameterization is not an issue in our case.

In the short, changes in the relative education of women and changes of a measure of democracy have a strong positive impact. The largest effect comes, also, from the relative education of women in the short-run. However, changes in the emigration rates in the current period, and lagged one and three periods have a negative impact, implying that in the short-run the emigration rate decreases the share of women in parliament. Possibly, in the very short-run potential women candidates for the parliament are emigrating, but as time passes these migrants exert a positive impact by transferring the political ideas, norms and values from the host countries, since changes in emigration rate lagged four and five periods have a positive effect. In addition, it might take more than a few years to settle in a foreign country and to become acquainted with the social, cultural and political norms and values, and then to transfer them. Furthermore, the negative effect of emigration in the short-run might also occur, if the people who are emigrating are the most influential people and if they are involved in the current social, cultural, and political arena and debate.

However, overall results show that Turkish migration, indeed, exposes the Turkish population to more democratic values and norms; and more importantly migrants transfer these values and norms to those left behind, something that helps transform Turkish society.

6.2 Aggregate Emigration including Asylum Seekers and Refugees

In this section, we estimate the Equation (1) by updating the emigration data by adding the data on asylum seekers and refugees from Turkey. On the one hand, asylum seekers and refugees might not influence the social, cultural and political dynamics of the country left behind, start a new life in a foreign country, and lose their contacts with their home country. On the other hand, they are the ones most likely to make a change, as they are the ones who speak about institutional failures. Therefore, we leave the empirical results to solve this dilemma.

Again, we start by defining the lag order p for the Equation (1). Table (2) displays the results of the lag order p selection procedure. The information criteria (Akaike, AIC, and Schwarz, SIC) and the Lagrange Multiplier statistic testing for remaining autocorrelation up to the first, fourth, and sixth orders in regression residuals are used for the lag order selection. The data cover 1972 until 2011. Both information criteria (AIC and SIC) select $p=5$. In addition, there is no evidence of remaining autocorrelation in the regression residuals, when $p=5$, as in the previous case. Given the results from the information selection criteria and the evidence of no residual autocorrelation, the model with $p=5$ is selected, as before. Therefore, the results are not affected by the inclusion of asylum seekers and refugees in our data. The last column of Table 2 reports the corresponding F-test statistics for the joint hypothesis utilising the finite-sample critical values reported in Narayan (2005) for $T=35$, corresponding to case III – with unrestricted constant and no linear deterministic trend.

Table 2: Lag order selection for the model with aggregate emigration data including asylum seekers and refugees

P	AIC	SIC	AR(1)	AR(4)	AR(6)	$F^{III}_{H_0:\theta_0=\theta_1=\theta_2=\theta_3=0}$
1	-2.574	-2.014	0.106	0.023	0.031	5.132[++]
2	-2.574	-1.834	0.012	0.073	0.187	4.249[++]
3	-3.156	-2.231	0.137	0.062	0.229	8.100[***]
4	-3.034	-1.923	0.009	0.008	0.004	3.154[++]
5	**-4.317**	**-3.419**	0.543	0.785	0.842	29.088[***]

Notes: p is the lag order of the underlying VAR model for the conditional ECM of Equation (1). AIC and SIC are, respectively, the Akaike and Schwartz Information Criteria. AR(1), AR(4), and AR(6) are the p-values of the Lagrange Multiplier (LM) test statistics for testing for, respectively, residual autocorrelation of orders up to one, four, and six. Bold entries represent the preferred lag order.

$F^{III}_{H_0:\theta_0=\theta_1=\theta_2=\theta_3=0}$ is the F-test statistic for the null hypothesis $H_0 : \theta_0 = \theta_1 = \theta_2 = \theta_3 = 0$ using the finite-sample critical values simulated in Narayan (2005, p. 1988) for $T=35$ corresponding to case III – with unrestricted constant and no linear deterministic trends. '***' indicates that the null hypothesis can be rejected at the 1% significance level. '++' indicates that the test statistic falls below the lower bound at the 1% significance level, therefore, the null hypothesis of no relationship in levels cannot be rejected.

As shown in Table 2 the null hypothesis of with no long-run relationship between women's parliamentary share, emigration rate, the relative education of women, and a measure of democracy can be decisively rejected for *p=3* and *p=5* at the 1% significance level, as before. For *p=1*, *p=2*, and *p=4* the test statistic falls below the lower bound indicating that there is no long-run relationship between the variables of interest at the 1% significance level. Hence, the results are not affected by the inclusion of asylum seekers and refugees into the emigration data.

After establishing the existence of a long-run relationship between women's parliamentary share, the emigration rate, the relative education of women, and a measure of democracy, we estimate the coefficients of interest as the same as before: we start with an error-correction model corresponding to *p=5*; delete the insignificant augmentation lags; and arrive at the parsimonious model in Equation (3) (standard errors in parentheses, and error probabilities in brackets). In the model below (3), $D2002_t$ again denotes an impulse dummy that is equal to 1 in 2002 and zero otherwise for the outlier in 2002.

$$\Delta WP_t = -2.299 - 2.362 WP_{t-1} + 1.342 Emig_{t-1} + 15.168 Educ_{t-1} + 0.512 FHI_{t-1}$$
$$\text{se} \quad (0.378)\ (0.219) \qquad\ (0.231) \qquad\qquad (1.925) \qquad\qquad (0.163)$$

$$+ 1.114 \Delta WP_{t-1} - 0.255 \Delta WP_{t-4} + 0.230 \Delta WP_{t-5} - 1.425 \Delta Emig_t$$
$$\text{se} \quad (0.158) \qquad\quad (0.104) \qquad\quad (0.088) \qquad\quad (0.328)$$

$$- 3.712 \Delta Emig_{t-1} - 0.993 \Delta Emig_{t-2} - 1.466 \Delta Emig_{t-3} + 10.392 \Delta Educ_t$$
$$\text{se} \quad (0.395) \qquad\qquad (0.416) \qquad\qquad (0.411) \qquad\qquad (2.908) \qquad\qquad\qquad (3)$$

$$+ 25.096 \Delta Educ_{t-3} + 16.296 \Delta Educ_{t-4} + 22.083 \Delta Educ_{t-5} + 1.214 \Delta FHI_t$$
$$\text{se} \quad (3.010) \qquad\qquad (4.063) \qquad\qquad (4.346) \qquad\qquad (0.264)$$

$$+ 0.293 \Delta FHI_{t-3} + 0.679 \Delta FHI_{t-5} - 0.415 D2002_t$$
$$\text{se} \quad (0.159) \qquad\qquad (0.172) \qquad\qquad (0.117)$$

$$R^2 = 0.956,\ F(19,14) = 15.14[0.000],\ T = 34$$
$$F^{AR(1-1)}_{(1,13)} = 0.391[0.543],\ F^{ARCH(1)}_{(1,12)} = 0.245[0.630]$$
$$\chi^{2Norm}_{(2)} = 0.843[0.656],\ F^{RESET}_{(1,13)} = 0.086[0.774]$$

The model in (3) passes all the standard specification tests, including tests of no residual autocorrelation, of no residual ARCH effects, of residual normality and, again, the RESET test for functional form misspecification. In addition, actual and fitted values follow each other very closely, as displayed in the top panel of Figure 6; and the corresponding cross-plot which is displayed in the right top panel. The estimated regression residuals do not show any signs of misspecification in the left bottom panel of Figure 6. The autocorrelation function up to fifth order, which is displayed in the right bottom panel takes rather small values that, moreover, change signs. Finally, Figure 7 displays

the values of the one-step, breakpoint, and forecast Chow test statistics scaled by their respective 1% critical values (Doornik and Hendry, 2001). These tests again show no signs of model instability.

The long-run elasticities of women's parliamentary share with respect to the emigration rate, the relative education of women and a measure of democracy are, respectively, 0.60, 6.42 and 0.22. 1% increases in the ratio of girls to boys in primary and secondary schools increases women's parliamentary share by 6.4%. This is again a very large effect. Similarly, 1% increases in emigration rate increases the share of women in parliament by 0.6%. This is also an important impact. Thus, emigration including asylum seekers and refugees again has a positive impact on women's empowerment in Turkey. In addition, 1% increases in the measure of democracy increases women's parliamentary share by 0.22. Thus our results are robust for the inclusion of asylum seekers and refugees in emigration data.

In the short-run changes in the relative education of women and changes in the measure of democracy have had a strong positive impact, especially changes in the relative education of women. Changes in emigration rates in the current period, and lagged one, two and three periods have a negative impact. Emigration data in this section includes asylum seekers and refugees, implying that Turkish migrants including asylum seekers and refugees were probably involved in politics before they left Turkey and that, therefore, their absence has a negative impact in the short-run. However, the positive long-run impact of emigration suggests that emigrants including asylum seekers and refugees do not lose touch with their fellow citizens, and more importantly that they transfer those social, cultural and political norms and values accumulated in the destination countries.

6.3 Emigration by Destination Country without Asylum Seekers and Refugees

In this section, we estimate the impact of emigration by destination country. Although the majority of Turkish labour migration was directed towards European and the OECD countries: in the 1980s and 1990s Arab countries and also, in the 1990s, Russia and CIS countries played an important role in Turkish migration, (Icduygu, 2009). Icduygu (2009) reports that in fact 71% of labour migrants went to Arab countries between 1975-1980, and 98% between 1981-1990 and 60% between 1990-1995, yet this figure started to decline after 1995. We need to take into account this important fact even if our data include not only labour migrants, but also students and visitors. Therefore, in this section, we investigate the destination-specific spillover effects of emigration on women's empowerment in Turkey. We expect emigration to democratic countries, such as European and other OECD countries, to have a greater and a more positive impact on the share of women in the Turkish parliament than emigration to the Arab and Russia and CIS countries. This is because migrants in the Western countries are exposed to Western political institutions, Western culture as well as Western systems. This transformative experience can induce migrants to change their political attitudes, beliefs and preferences and hence support women in politics in Turkey. However, migration to religious or autocratic or semi-autocratic countries such as Arab countries and Russia and CIS countries can have a weaker effect on women's parliamentary share in Turkey. Therefore, in this section, we will account for the destination-specific effects on women's empowerment in Turkey.

The bounds testing procedure in the present context will be performed by relating women's parliamentary share to emigration to EU and OECD countries, emigration to Arab countries, emigration to Russia and the CIS countries and the relative education of women[10] according to a vector autoregressive (VAR) model of order *p* that can be further reduced to the following conditional error correction model (ECM):

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[10]   We could not include a measure of democracy in this case, because of the small sample size.

$$\Delta WP_t = \alpha + \theta_0 WP_{t-1} + \theta_1 EmigEUOECD_{t-1} + \theta_2 EmigARAB_{t-1} + \theta_3 EmigRussiaCIS_{t-1}$$

$$+ \theta_4 Educ_{t-1} + \sum_{i=1}^{p} \gamma_i \Delta WP_{t-i} + \sum_{i=0}^{p} \lambda_i \Delta EmigEUOECD_{t-i} + \sum_{i=0}^{p} \vartheta_i \Delta EmigARAB_{t-i} \quad (4)$$

$$+ \sum_{i=0}^{p} \varphi_i \Delta EmigRussiaCIS_{t-i} + \sum_{i=0}^{p} \beta_i \Delta Educ_{t-i} + \omega' D_t + \varepsilon_t$$

WP, *EmigEUOECD*, *EmigARAB, EmigRussiaCIS* and *Educ* denote, respectively: women's parliamentary share, the share of emigration to the EU and OECD countries in total emigration, the share of emigration to the Arab countries , the share of emigration to Russia and the CIS countries in total emigration, and girls to boys ratio in primary and secondary schools. The lagged values of *WP, EmigEUOECD, EmigARAB, EmigRussiaCIS* and *Educ* (are in logs) present a long-run relationship in levels. α and D_t are, respectively, the deterministic terms; constant and dummy variables. The short-run dynamics is represented by lagged values of ΔWP_t and current and lagged values of $\Delta EmigEUOECD_t$, $\Delta EmigARAB_t$, $\Delta EmigRussiaCIS_t$ and $\Delta Educ_t$. The conditional long-run elasticities of women's parliamentary share with respect to *EmigEUOECD*, *EmigARAB*, *EmigRussiaCIS* and *Educ* are given by $-\theta_1/\theta_0$, $-\theta_2/\theta_0$, $-\theta_3/\theta_0$, and $-\theta_4/\theta_0$ (Banerjee *et al.*, 1998). The data span 1960 to 1995, since the emigration data by destination countries are only available until 1995.

We start by defining the lag order *p* for the Equation (4).[11] Table (3) displays the results of the lag order *p* selection procedure. The information criteria (Akaike, AIC, and Schwarz, SIC) and the Lagrange Multiplier statistic testing for remaining autocorrelation up to the first, fourth, and sixth orders in regression residuals are used for the lag order selection. AIC selects *p=3*, whereas SIC selects *p=4*. However, autocorrelation tests deliver better results for *p=3*, therefore *p=3* is preferred. The last column of Table 3 reports the corresponding *F*-test statistics for the joint hypothesis $H_0 : \theta_0 = \theta_1 = \theta_2 = \theta_3 = \theta_4 = 0$ using the finite-sample critical values reported in Narayan (2005) for *T=30*, corresponding to case III – with unrestricted constant and no linear deterministic trend.

As shown in Table 3 the null hypothesis of no long-run relationship between women's parliamentary share, emigration share to the EU and other OECD countries, emigration share to the Arab countries, emigration share to Russia and the CIS countries and the relative education of women can be decisively rejected for *p=3* at the 1% significance level. For *p=1*, *p=2*, and *p=4* the test statistic falls below the lower bound indicating that there is no long-run relationship between the variables of interest at the 1% significance level.

Table 3: Lag order selection for the model with emigration data by destination countries

P	AIC	SIC	AR(1)	AR(4)	AR(6)	$F^{III}_{H_0:\theta_0=\theta_1=\theta_2=\theta_3=\theta_4=0}$
1	-2.491	-1.818	0.236	0.064	0.035	3.219[++]
2	-2.521	-1.614	0.045	0.122	0.000	3.543[++]
3	**-3.335**	-2.235	0.125	0.032	0.191	8.151[***]
4	-3.282	**-2.357**	0.009	0.016	0.023	4.215[++]

Notes: *p* is the lag order of the underlying VAR model for the conditional ECM of Equation (4). AIC and SIC are, respectively, the Akaike and Schwartz Information Criteria. AR(1), AR(4), and AR(6)

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[11] Unfortunately, we could not test for higher orders of lag, due to the sample size. However, the lag order of 4 delivered very satisfactory results.

are the *p*-values of the Lagrange Multiplier (LM) test statistics for testing for residual autocorrelation of orders up to, respectively, one, four, and six. Bold entries represent the preferred lag order. $F_{H_0:\theta_0=\theta_1=\theta_2=\theta_3=\theta_4=0}^{III}$ is the *F*-test statistic for the null hypothesis $H_0:\theta_0=\theta_1=\theta_2=\theta_3=\theta_4=0$ using the finite-sample critical values simulated in Narayan (2005, p. 1988) for *T=30* corresponding to case III − with unrestricted constant and no linear deterministic trends. '***' indicates that the null hypothesis can be rejected at the 1% significance level. '++' indicates that the test statistic falls below the lower bound at the 1% significance level, therefore, the null hypothesis of no relationship in levels cannot be rejected.

After establishing the existence of a long-run relationship between women's parliamentary share, emigration share to the EU and OECD countries, the emigration share to Arab countries, emigration share to Russia and the CIS countries, and the relative education of women, we estimate the coefficients of interest as follows: we start with an error-correction model corresponding to *p=3*; and we delete the insignificant augmentation lags; and arrive at the parsimonious model in Equation (5) (standard errors in parentheses, and error probabilities in brackets). In the model below (5), $D1993_t$ denotes an impulse dummy that is equal to 1 in 1993 and zero otherwise for the outlier in 1993.[12]

$$\Delta WP_t = 7.402 - 1.034 WP_{t-1} + 7.414 EmigEUOECD_{t-1} + 2.057 EmigARAB_{t-1}$$
$$\text{se} \quad (3.268)\ (0.308) \qquad\quad (2.398) \qquad\qquad\quad (0.576)$$

$$+ 0.498 EmigRussiaCIS_{t-1} + 7.717 Educ_{t-1} + 0.260 \Delta WP_{t-1} + 0.544 \Delta WP_{t-2}$$
$$\text{se} \quad (0.121) \qquad\qquad\quad (1.721) \qquad\quad (0.199) \qquad\quad (0.215)$$

$$+ 0.279 \Delta WP_{t-3} - 5.647 \Delta EmigEUOECD_{t-1} - 3.593 \Delta EmigEUOECD_{t-2}$$
$$\text{se} \quad (0.181) \qquad\quad (1.756) \qquad\qquad\qquad (1.322)$$

$$- 3.093 \Delta EmigEUOECD_{t-3} + 0.512 \Delta EmigARAB_t - 1.557 \Delta EmigARAB_{t-1}$$
$$\text{se} \quad (1.284) \qquad\qquad\qquad (0.201) \qquad\qquad (0.402)$$

$$- 0.652 \Delta EmigARAB_{t-2} - 0.536 \Delta EmigARAB_{t-3} - 0.259 \Delta EmigRussiaCIS_t$$
$$\text{se} \quad (0.287) \qquad\qquad\quad (0.221) \qquad\qquad\quad (0.143)$$

$$- 0.682 \Delta EmigRussiaCIS_{t-1} - 0.547 \Delta EmigRussiaCIS_{t-2}$$
$$\text{se} \quad (0.239) \qquad\qquad\qquad (0.186)$$

$$- 0.477 \Delta EmigRussiaCIS_{t-3} + 22.535 \Delta Educ_{t-1} + 11.838 \Delta Educ_{t-2}$$
$$\text{se} \quad (0.186) \qquad\qquad\qquad (7.146) \qquad\quad (8.157)$$

$$+ 15.406 \Delta Educ_{t-3} - 0.422 D1993_t \tag{5}$$
$$\text{se} \quad (8.251) \qquad\quad (0.232)$$

$$R^2 = 0.929,\ F(23,8) = 4.559[0.016],\ T = 32$$
$$F_{(1,7)}^{AR(1-1)} = 3.030[0.125],\quad F_{(1,6)}^{ARCH(1)} = 0.008[0.931]$$

$$\chi_{(2)}^{2Norm} = 2.112[0.348],\quad F_{(1,7)}^{RESET} = 4.896[0.063]$$

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[12] An outlier in 1993 was detected and the dummy in 1993 accounts for a decrease in women's parliamentary share in that year that cannot be explained by the emigration share to the EU and other OECD countries, emigration share to Arab countries, emigration share to Russia and CIS countries, and the relative education of women.

The model in (5) passes all the standard specification tests, such as tests of no residual autocorrelation, of no residual ARCH effects, of residual normality and the RESET test for functional form misspecification.[13] The close match of actual and fitted values displayed in the top panel of Figure 9; and the corresponding cross-plot is displayed in the right top panel. The estimated regression residuals do not show any signs of misspecification in the left bottom panel of Figure 9. The autocorrelation function up to fifth order is displayed in the right bottom panel. Finally, Figure 10 displays the values of the one-step, breakpoint, and forecast Chow test statistics scaled by their respective 1% critical values (Doornik and Hendry, 2001). None of these tests show any signs of model instability.

The long-run elasticities of women's parliamentary share with respect to emigration share to the EU and other OECD countries, emigration share to Arab countries, emigration share to Russia and CIS countries, and the relative education of women are respectively 7, 2, 0.5 and 7.5. Although the majority of labour migrants in the 1980s and 1990s went to Arab countries, emigration to these countries has much less impact on the share of women in the parliament compared to emigration to the EU and to other OECD countries.

In the short-run, changes in the relative education of women have a very strong positive effect. Changes in emigration shares for the three destination groups in general have a negative impact, implying that Turkish migrants are self-selected in the sense that they are involved in the current political debate. Therefore, their absence has a negative impact over the short term. However, in the long-run emigration has a positive effect regardless of their destination. The results show that the diffusion of democratic and social norms and values is stronger when Turkish migrants go to the EU and OECD countries. Thus, the destination-specific effect of emigration on women empowerment is important: Turkish emigration to the West encourages women's empowerment in Turkey. The effect is striking. A one percentage point increase in migration to the EU and OECD countries increase the change in the share of women in the Turkish parliament 7 percentage points in the long-run, almost the same magnitude as the education variable. Turkish migration to the West convey to non-migrants in Turkey values, norms, and practices that contribute to women's empowerment as much as does the education of women.

In contrast, emigration to Arab countries had comparatively less impact on women's empowerment; likewise emigration to Russia and CIS countries did not particularly impact women's parliamentary share. Emigrants to Arab countries are more likely to support the religious parties and their ideologies in Turkey.[14] Migration can, indeed, strengthen religious identities, especially in destinations where religion has an important part in the daily life, (Ahmad, 2005; Osella and Osella, 2007; and Rajagopal, 1997). Although religious parties in Turkey, e.g. the Welfare Party, activated millions of women to circulate the party's ideology by going door to door, women did not have enough places in the representative and administrative systems of the party. In fact, there was only one woman from the Welfare Party in parliament during the period have examined. This might explain the low impact of emigrants to Arab countries on women's parliamentary share in Turkey.

However, the results show that Turkish migration to the EU and OECD countries has been important in determining women's empowerment in Turkey. Thus, indeed a foreign country

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[13] The final model uses 8 degrees of freedom in estimates relative to 32 observations, however, over-parameterisation does not only depend on the number of coefficients estimated and the sample size, but also on the variability of the data – the informational content of the data which is very high in our case. Again, over-parameterisation is not a concern in our case, due to the nature of our data.

[14] During the 1960-1995 period, three religious parties were active in politics in Turkey: the National Order Party (1970-1971); the National Salvation Party (1972-1980), and the Welfare Party (1983-1998). The National Salvation Party gained 11.8% of the votes and was granted 48 seats in the parliament in the 1973 elections, and gained 8.6% of the votes and won 24 seats in the 1977 elections. However, in neither elections did it have any women member in the parliament. The National Salvation Party was banned after the military coup in 1980. The Welfare Party, which was founded in 1983, was granted 40 seats in the parliament in the 1991 elections and had only one woman member in that parliament. In the 1995 elections, it won 158 seats in the parliament, but again it had only one woman member in the parliament.

experience can have an effect on people's attitudes, preferences and decision-making such as the participation of women in politics. However, the ideas and experience that migrants bring with them or send back home differ by country of destination. Thus, social remittances can have a negative side as well, depending on the country of destination.

6.4 Emigration by Destination Countries including Asylum Seekers and Refugees

In this section, we estimate Equation (4) by updating the emigration data by destination countries by adding the data on asylum seekers and refugees from Turkey.

Again, we start by defining the lag order *p* for Equation (4). Table (4) displays the results of the lag order *p* selection procedure. The information criteria (Akaike, AIC, and Schwarz, SIC) and the Lagrange Multiplier statistic testing for remaining autocorrelation up to the first, fourth, and sixth orders in regression residuals are used for lag order selection. Both information criteria – AIC as well as SIC – selects *p=3*. In addition, autocorrelation tests do not differ much for *p=3* or *p=4*, therefore *p=3* is preferred. The last column of Table 4 reports the corresponding F-test statistics for the joint hypothesis $H_0 : \theta_0 = \theta_1 = \theta_2 = \theta_3 = \theta_4 = 0$ using the finite-sample critical values reported in Narayan (2005) for *T=30*, corresponding to case III – with unrestricted constant and no linear deterministic trend.

Table 4: Lag order selection for the model with emigration data by destination countries with asylum seekers and refugees

P	AIC	SIC	AR(1)	AR(4)	AR(6)	$F^{III}_{H_0:\theta_0=\theta_1=\theta_2=\theta_3=\theta_4=0}$
1	-2.514	-1.840	0.226	0.055	0.024	3.322[++]
2	-2.557	-1.650	0.053	0.120	0.000	3.368[++]
3	**-3.400**	**-2.301**	0.129	0.015	0.053	8.563[***]
4	-3.131	-2.206	0.279	0.092	0.038	3.864[++]

Notes: *p* is the lag order of the underlying VAR model for the conditional ECM of Equation (4). AIC and SIC are, respectively, the Akaike and Schwartz Information Criteria. AR(1), AR(4), and AR(6) are the *p*-values of the Lagrange Multiplier (LM) test statistics for testing for residual autocorrelation of orders, respectively, up to one, four, and six. Bold entries represent the preferred lag order. $F^{III}_{H_0:\theta_0=\theta_1=\theta_2=\theta_3=\theta_4=0}$ is the *F*-test statistic for the null hypothesis $H_0 : \theta_0 = \theta_1 = \theta_2 = \theta_3 = \theta_4 = 0$ using the finite-sample critical values simulated in Narayan (2005, p. 1988) for *T=30* corresponding to case III – with unrestricted constant and no linear deterministic trends. '***' indicates that the null hypothesis can be rejected at the 1% significance level. '++' indicates that the test statistic falls below the lower bound at the 1% significance level, therefore, the null hypothesis of no relationship in levels cannot be rejected.

As shown in Table 4 the null hypothesis of no long-run relationship between women's parliamentary share, emigration share for the EU and other OECD countries, emigration share to Arab countries, emigration share to Russia and to CIS countries, and the relative education of women can be decisively rejected for *p=3* at the 1% significance level. For *p=1*, *p=2*, and *p=4* the test statistic falls below the lower bound indicating that there is no long-run relationship between the variables of interest at 1% significance level.

After establishing the existence of a long-run relationship between women's parliamentary share, emigration share to the EU and other OECD countries, emigration share to Arab countries, emigration share to Russia and CIS countries, and the relative education of women, we estimate the coefficients of interest as the same before. We go through the following steps: we start with an error-correction model corresponding to *p=3*; delete the insignificant augmentation lags, and arrive at the parsimonious model in Equation (6) (standard errors in parentheses, and error probabilities in brackets). In the model

below (6), $D1993_t$ denotes again an impulse dummy that is equal to 1 in 1993 and zero otherwise for the outlier in 1993.

$$\Delta WP_t = 7.243 - 1.038 WP_{t-1} + 7.429 EmigEUOECD_{t-1} + 2.019 EmigARAB_{t-1}$$
$$\text{se} \quad (3.056)\ (0.301) \qquad (2.292) \qquad\qquad (0.538)$$

$$+ 0.492 EmigRussiaCIS_{t-1} + 7.645 Educ_{t-1} + 0.259\Delta WP_{t-1} + 0.515\Delta WP_{t-2}$$
$$\text{se} \quad (0.112) \qquad\qquad (1.609) \qquad (0.192) \qquad (0.206)$$

$$+ 0.263\Delta WP_{t-3} - 5.741\Delta EmigEUOECD_{t-1} - 3.544\Delta EmigEUOECD_{t-2}$$
$$\text{se} \quad (0.177) \qquad (1.727) \qquad\qquad (1.239)$$

$$- 3.062\Delta EmigEUOECD_{t-3} + 0.513\Delta EmigARAB_t - 1.519\Delta EmigARAB_{t-1}$$
$$\text{se} \quad (1.211) \qquad\qquad (0.193) \qquad\qquad (0.380)$$

$$- 0.598\Delta EmigARAB_{t-2} - 0.508\Delta EmigARAB_{t-3} - 0.269\Delta EmigRussiaCIS_t$$
$$\text{se} \quad (0.264) \qquad\qquad (0.209) \qquad\qquad (0.137)$$

$$- 0.654\Delta EmigRussiaCIS_{t-1} - 0.546\Delta EmigRussiaCIS_{t-2}$$
$$\text{se} \quad (0.221) \qquad\qquad (0.179)$$

$$- 0.455\Delta EmigRussiaCIS_{t-3} + 23.486\Delta Educ_{t-1} + 10.026\Delta Educ_{t-2}$$
$$\text{se} \quad (0.169) \qquad\qquad (6.800) \qquad (7.860)$$

$$+ 17.049\Delta Educ_{t-3} - 0.409 D1993_t \qquad\qquad\qquad\qquad\qquad (6)$$
$$\text{se} \quad (8.434) \qquad (0.223)$$

$$R^2 = 0.934,\ F(23,8) = 4.89[0.013],\ T = 32$$
$$F^{AR(1-1)}_{(1,7)} = 2.969[0.129],\quad F^{ARCH(1)}_{(1,6)} = 0.032[0.864]$$

$$\chi^{2Norm}_{(2)} = 1.280[0.527],\quad F^{RESET}_{(1,7)} = 2.911[0.132]$$

The model in (6) passes all the standard specification tests, such as tests of no residual autocorrelation, of no residual ARCH effects, of residual normality and the RESET test for functional form misspecification. Actual and fitted values are displayed in the top panel of Figure 12; and the corresponding cross-plot is displayed on the right top panel. The estimated regression residuals do not show any signs of misspecification in the left bottom panel of Figure 12. The autocorrelation function up to fifth order is displayed in the right bottom panel. Finally, Figure 13 displays the values of the one-step, breakpoint, and forecast Chow test statistics scaled by their respective 1% critical values (Doornik and Hendry, 2001). None of these tests show any signs of model instability, as before.

The long-run elasticities of women's parliamentary share with respect to emigration share to the EU and other OECD countries, emigration share to Arab countries, emigration share to Russia and CIS countries, and the relative education of women are, respectively, 7, 2, 0.5 and 7.4. The results are very similar to the previous section such that the inclusion of asylum seekers and refugees to emigration data by destination countries does not change our conclusions. Thus, emigration to the EU and to OECD countries has the largest effect on women's empowerment compared to other destinations, confirming the importance of the destination-specific effect of emigration for social remittances.

7. Conclusions and Policy Implications

This study draws attention to the fact that knowledge and ideas as well as social, political and cultural norms and values are circulated and diffused with migration. We used time series data on Turkish emigration at the aggregate level, as well as by destination countries, in order to investigate the impact of emigration on women's empowerment – the parliamentary participation of women in Turkey, 1960-2011. This was an important task given that gender equality enhances productivity and economic efficiency, improves development outcomes for the next generation as well for children, and makes institutions more representative (World Bank, 2011). Thus, gender imbalances influence laws, politics, and policy making, institutions and policies in favour of the interests of those with more influence, something which further exacerbates gender imbalances. Therefore, when women play an active role in politics, they improve the health, education, economic and social status of women themselves, children and families more generally (Thomas, 1991 and Clots-Figuera, 2011).

We showed that Turkish emigration, indeed, affects the share of women in the Turkish parliament at the aggregate level as well as by destination countries, along with the ratio of girls to boys in primary and secondary schools, and a measure of democracy. Therefore, we can conclude that emigration is an important determinant of women's empowerment in Turkey, and hence contributes to the equal representation of women and men in the decision-making process. The most significant impact comes from the migrants who go to the EU and OECD countries. They encounter there democratic values and bring the same home. Thus, emigration to advanced democracies can help with the democratization of the source countries. Whereas, emigration to Arab countries and to Russia and to CIS countries has less impact on women's empowerment in Turkey. This could be because, migrants to Arab countries might be politically and economically supporting the religious party in Turkey and during the period of our analysis the religious party had only one woman in parliament. The effect of emigrants to Arab countries on women's empowerment was, therefore, smaller. Similarly, emigration to less democratic countries, such as Russia and to CIS countries delivered much less in the way of women's empowerment.

The formation and evaluation of political preferences for women through emigration have important policy implications for both sending and for destination countries. First, migration, and thus social remittances should be accepted as an important component in development for both sending and destination countries. Democratically, politically and socially more advanced countries should welcome migrants from less developed countries, given the evidence in this study that migration not only alleviates labour market constraints in sending countries and contributes financially. It also helps transform the political, social, and cultural lives of the sending countries. Second, migrant women organisations or migrants' organisations that seek to empower women in the destination countries should be supported and encouraged by destination country governments. Third, these organisations should be linked to organisations in the home countries by the sending country governments. Fourth, more formal dialogues through conferences, seminars, and workshops should be established and strengthened between migrants and non-migrant communities by both sending and destination country governments and NGOs. Fifth, the social, political and cultural problems of the sending countries should be investigated and better understood by destination countries, and the migrants should be understood as a central element for understanding these problems, finding solutions as well as contributing to non-migrant communities in the home countries through ideas and knowledge as well as norms and values accumulated in the host countries.

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Figure 2:
The Salient Features of the Data, Aggregate Emigration without Asylum Seekers and Refugees
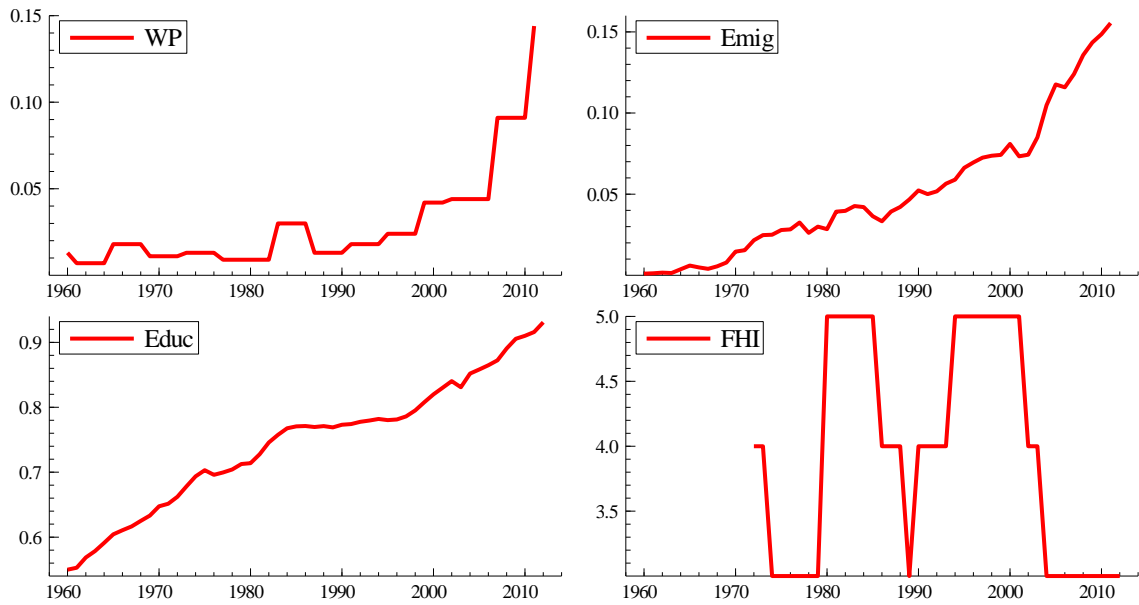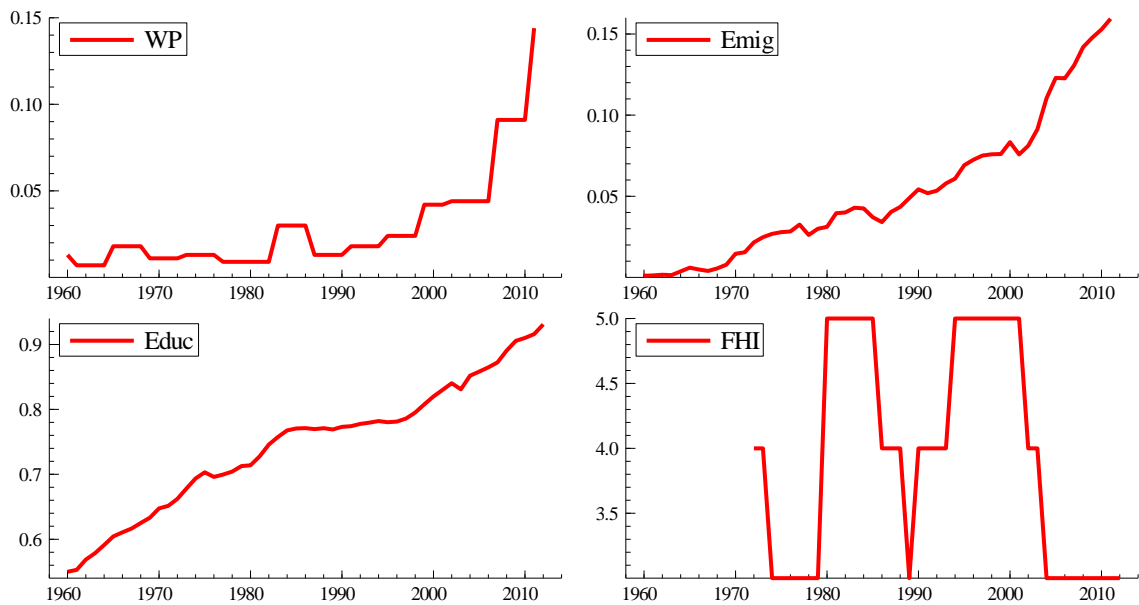

Figure 3: Actual and fitted values; Cross-plot of actual and fitted values; Regression residuals (r:DWP); Autocorrelation function of regression residuals (ACF-r:DWP), Equation (2)
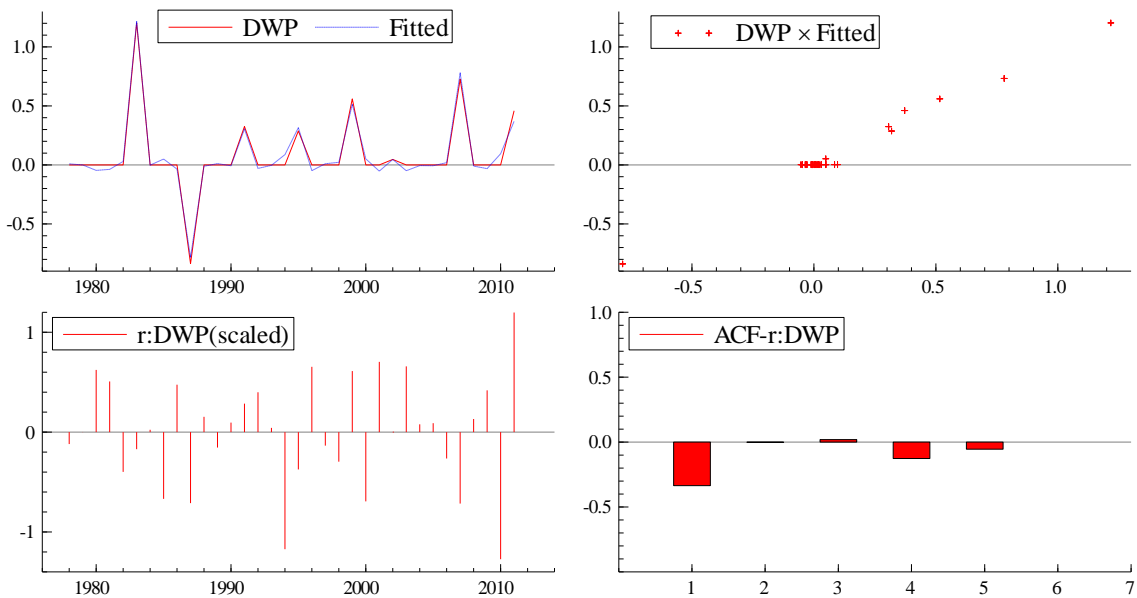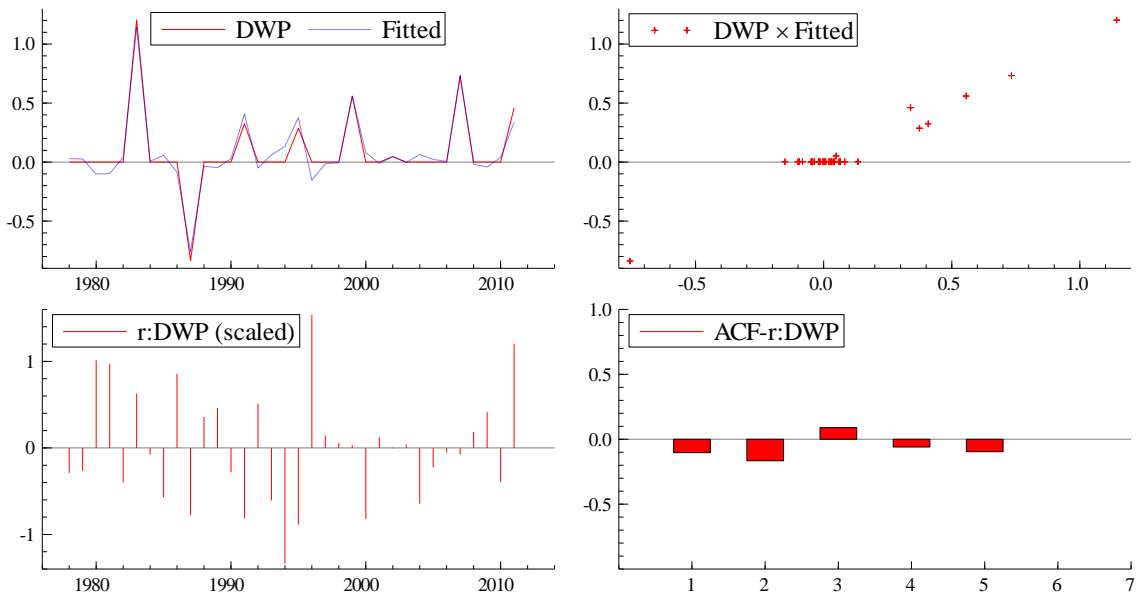
Figure 4:
Recursive stability 1-step; breakpoint; and forecast Chow test statistics scaled by their respective 1% critical values, Equation (2)
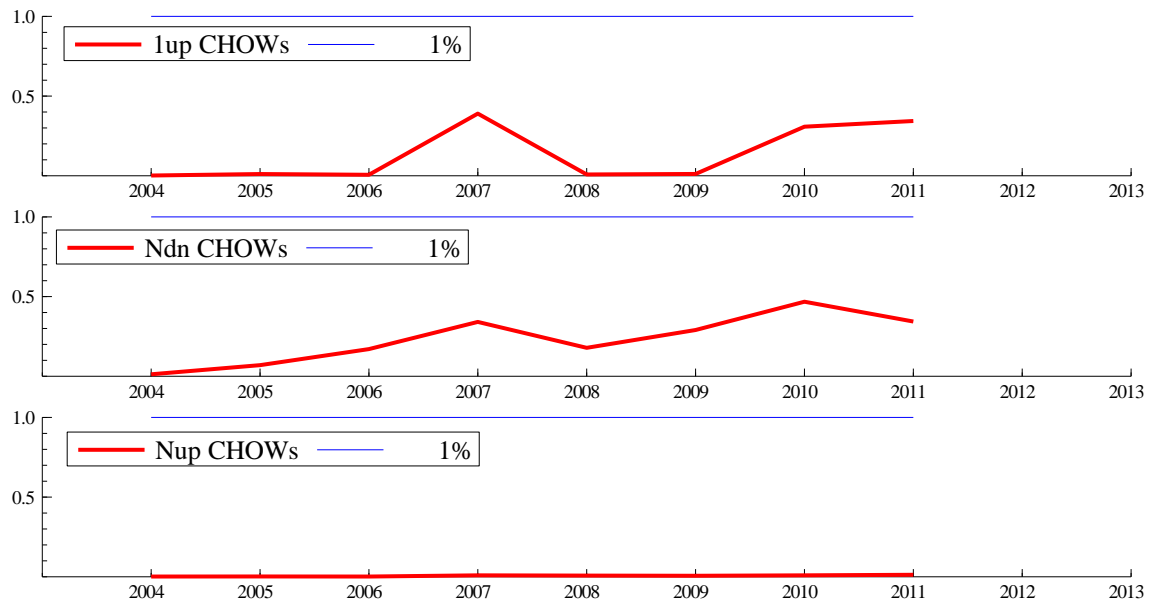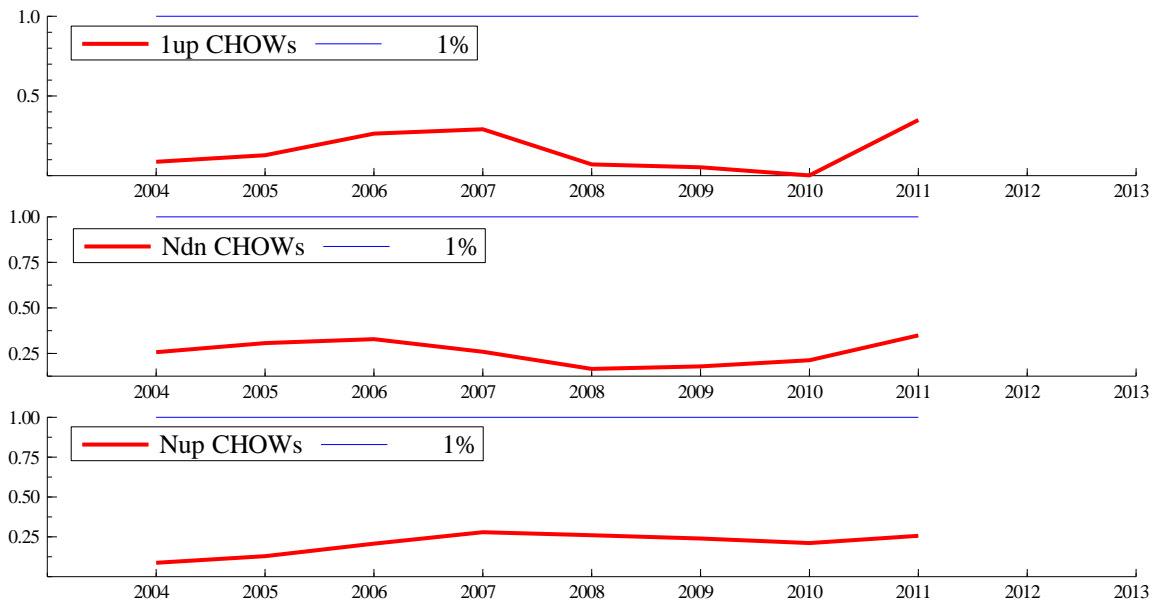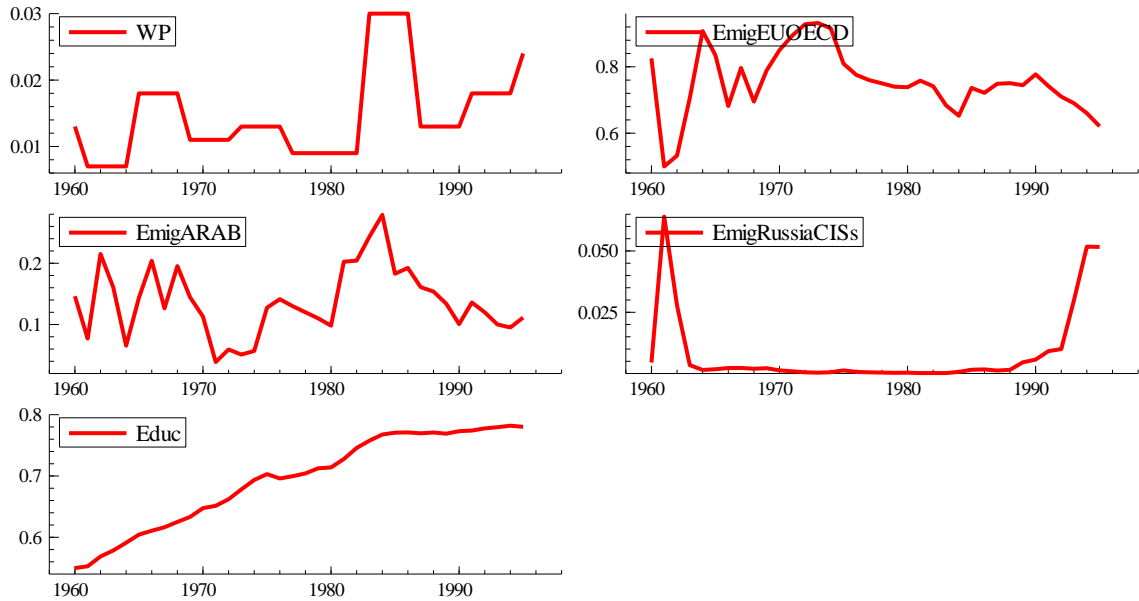

Figure 5:
The Salient Features of Data, Aggregate Emigration Data with Asylum Seekers and Refugees

Figure 6: Actual and fitted values; Cross-plot of actual and fitted values; Regression residuals (r:DWP); Autocorrelation function of regression residuals (ACF-r:DWP), Equation (3)
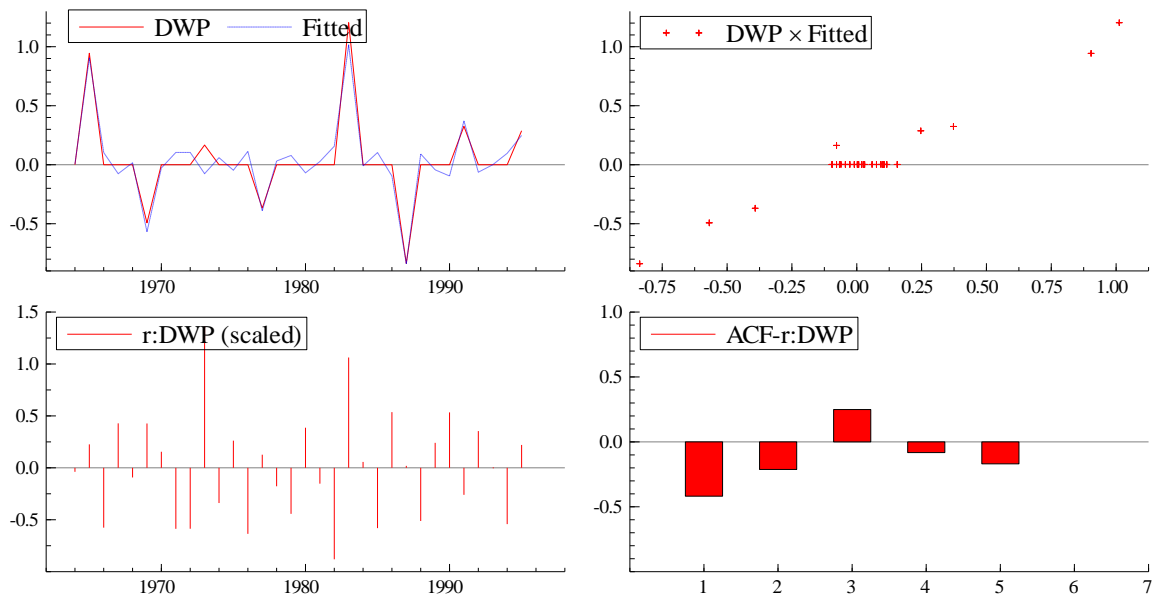

Figure 7: Recursive stability 1-step; breakpoint; and forecast Chow test statistics scaled by their respective 1% critical values, Equation (3)
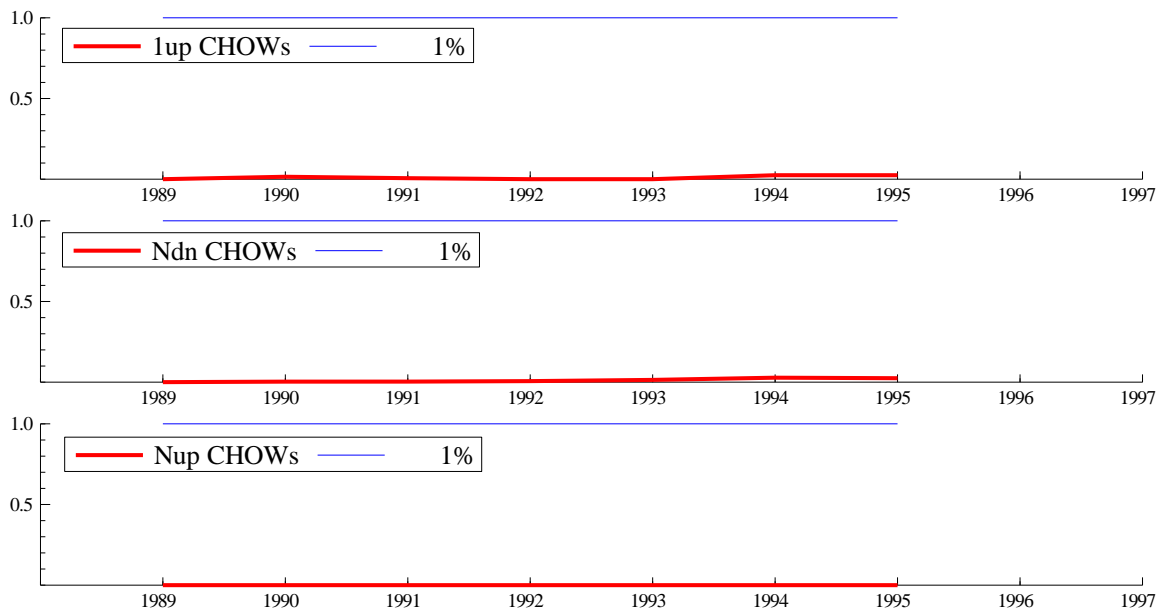
Figure 8: The Salient Features of Data with Emigration Data by Destination Countries not including Asylum Seekers and Refugees
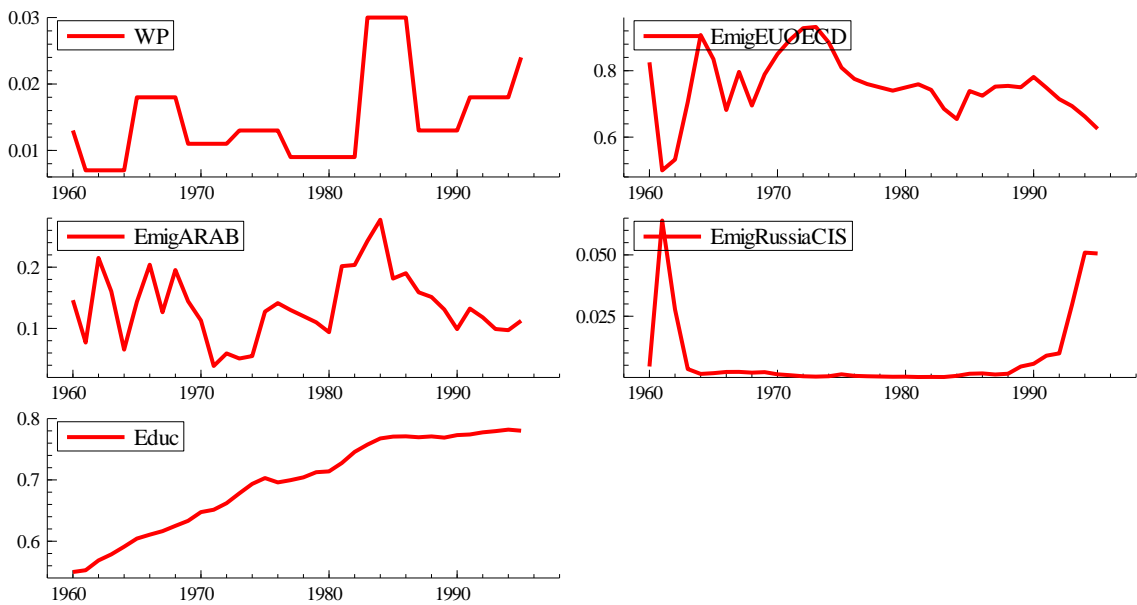

Figure 9: Actual and fitted values; Cross-plot of actual and fitted values; Regression residuals (r:DWP); Autocorrelation function of regression residuals (ACF-r:DWP), Equation (5)

Figure 10: Recursive stability 1-step; breakpoint; and forecast Chow test statistics scaled by their respective 1% critical values, Equation (5)

Figure 11:
The Salient Features of Emigration Data by Destination Countries with Asylum Seekers and Refugees

Figure 12: Actual and fitted values; Cross-plot of actual and fitted values; Regression residuals (r:DWP); Autocorrelation function of regression residuals (ACF-r:DWP), Equation (6)
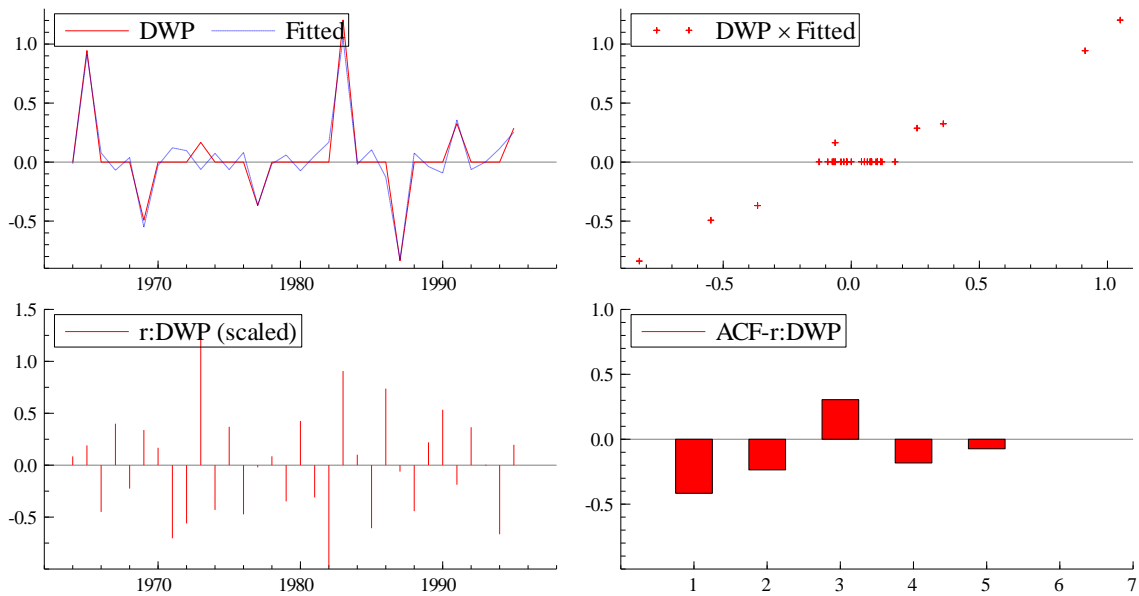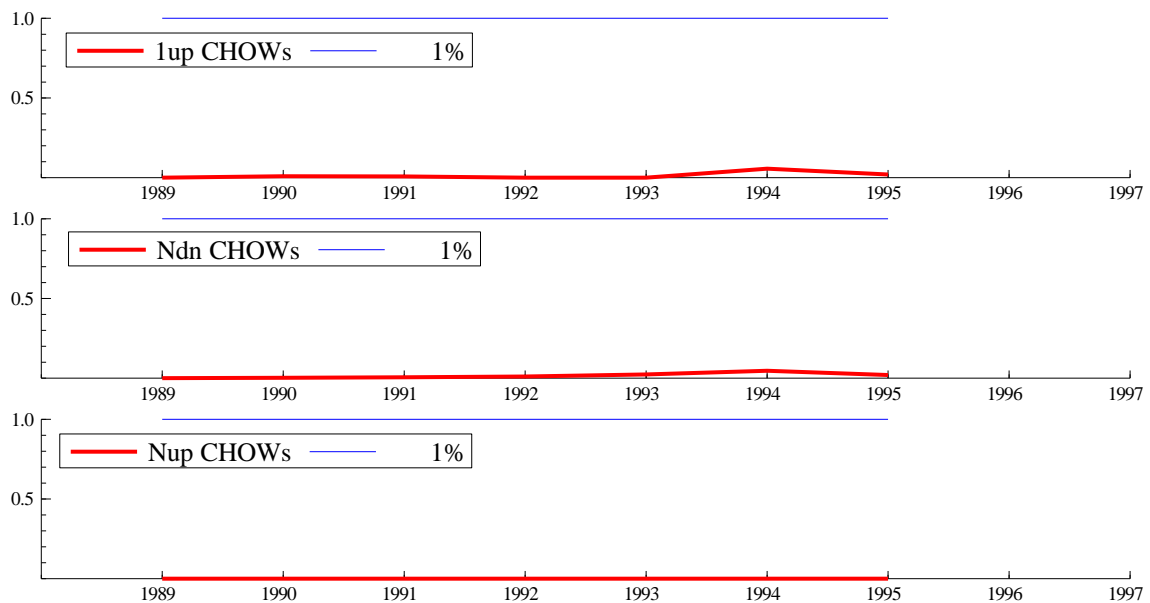

Figure 13: Recursive stability 1-step; breakpoint; and forecast Chow test statistics scaled by their respective 1% critical values, Equation (6)

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