

second highest positive impact, predicting 16.5 of the change in the wage share. Based on specification (8) we find a sizeable negative effect of household debt and, albeit much smaller in size, of ICT capital intensity. Results indicate that migration has had the strongest positive effect on the wage share.

5.2 Estimation Results for the pool of nine OECD countries

Table 6 shows our estimation results for the total country pool including selected developed countries (Austria, Denmark, France, Germany, Italy, Spain, Sweden, the UK, and the US), while Table 7 shows the same specifications estimated for manufacturing and services industries separately.

Table 6: Estimation results for pool of selected OECD countries, all sectors

	allC_1	allC_3	allC_4	allC_6	allC_7	allC_8	allC_9
growth	-0.151***	-0.157***	-0.244***	-0.247***	-0.217***	-0.238***	-0.250***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
capital stock_t-1	0.068***	0.060**					
	(0.003)	(0.014)					
int. imports_t-1	-0.144***	-0.059*			-0.276***		
	(0.000)	(0.063)			(0.000)		
other imports_t-1	0.047**	0.094***			0.087***		
	(0.018)	(0.000)			(0.000)		
tot. union density_t-1		0.003**		0.002**	-0.001	-0.001	0.001
		(0.047)		(0.013)	(0.364)	(0.455)	(0.511)
social government_t-1		0.017***		0.016***	0.017***	0.015***	0.014***
		(0.000)		(0.000)	(0.000)	(0.000)	(0.000)
bargaining cov_t-1		0.003***		0.001	0.004***	0.002**	0.001
		(0.000)		(0.447)	(0.000)	(0.032)	(0.474)
ICT capital_t-1			-0.017***	-0.016***	-0.004	-0.005	0.006
			(0.000)	(0.000)	(0.545)	(0.225)	(0.334)
non-ICT capital_t-1			0.047***	0.042***	0.026	0.028**	0.024*
			(0.000)	(0.001)	(0.279)	(0.043)	(0.080)
outward FDI_t-1			-0.012*	-0.014**	-0.013**	-0.014**	0.083**
			(0.053)	(0.046)	(0.031)	(0.025)	(0.012)
hh debt_t-1					0.038*	0.009	0.007
					(0.058)	(0.628)	(0.768)
migration_t-1					-0.811***	-0.559***	-0.625***
					(0.000)	(0.000)	(0.000)
top1 inc. share_t-1							-0.004**
							(0.012)
constant	0.647***	0.067	0.838***	0.531***	0.255**	0.511***	0.649***
	(0.000)	(0.379)	(0.000)	(0.000)	(0.027)	(0.000)	(0.000)
withR2	0.115	0.200	0.150	0.176	0.354	0.158	0.173
F-test	34.082	59.263	27.259	34.911	732.022	91.273	52.276
obs	1813.000	1813.000	2270.000	2270.000	1087.000	2033.000	1766.000
number of sectors	106.000	106.000	158.000	158.000	92.000	158.000	138.000

Notes: The dependent variable is the within sector wage share. All estimations exclude Agriculture, Hunting, Forestry and Fishing; and Mining and Quarrying sectors as well as public sectors (Public Administration and Defence; Compulsory Social Security; Education; Human Health and Social Work Activities). Estimations performed using the within estimator with autocorrelation, cross-sectional correlation and heteroscedasticity robust standard errors. P-values below the estimation coefficients in parenthesis. *, **, *** denote statistical significant at the 1%, 5% and 10% level, respectively.

Table 7: Estimation results for pool of selected OECD countries, manufacturing and service sectors

	MANU_1	MANU_3	MANU_4	MANU_6	MANU_7	MANU_8	MANU_9	SERV_4	SERV_6	SERV_8	SERV_9
growth	-0.153*** (0.000)	-0.159*** (0.000)	-0.245*** (0.000)	-0.253*** (0.000)	-0.220*** (0.000)	-0.236*** (0.000)	-0.249*** (0.000)	-0.248*** (0.000)	-0.248*** (0.000)	-0.275*** (0.000)	-0.184*** (0.000)
capital stock_t-1	0.072*** (0.002)	0.062** (0.016)									
int. imports_t-1	-0.142*** (0.000)	-0.058* (0.086)			-0.288*** (0.000)						
other imports_t-1	0.049** (0.015)	0.095*** (0.000)			0.083*** (0.000)						
tot. union density_t-1		0.003** (0.047)		0.003** (0.020)	-0.002 (0.125)	-0.001 (0.390)	0.001 (0.682)		0.001 (0.152)	0.002* (0.083)	0.002 (0.134)
social government_t-1		0.018*** (0.000)		0.028*** (0.000)	0.018*** (0.000)	0.025*** (0.000)	0.024*** (0.000)		0.001 (0.842)	0.002 (0.457)	-0.001 (0.849)
bargaining cov_t-1		0.003*** (0.000)		0.001 (0.332)	0.004*** (0.000)	0.003** (0.025)	0.002 (0.203)		-0.001 (0.163)	-0.001 (0.193)	-0.002* (0.060)
ICT capital_t-1			-0.021*** (0.000)	-0.020*** (0.000)	-0.008 (0.336)	-0.012*** (0.003)	-0.002 (0.843)	-0.016*** (0.000)	-0.014*** (0.001)	0.006 (0.502)	0.009 (0.401)
non-ICT capital_t-1			0.046** (0.023)	0.041* (0.079)	0.028 (0.258)	0.027 (0.291)	0.025 (0.378)	0.065*** (0.000)	0.061*** (0.000)	0.053*** (0.005)	0.052* (0.051)
outward FDI_t-1			-0.014** (0.023)	-0.016** (0.014)	-0.014** (0.031)	-0.016** (0.012)	0.066** (0.023)	0.158*** (0.000)	0.166*** (0.000)	0.150*** (0.000)	0.140*** (0.001)
hh debt_t-1					0.039** (0.039)	0.021 (0.313)	0.024 (0.383)			-0.041* (0.071)	-0.008 (0.718)
migration_t-1					-0.852*** (0.000)	-0.399*** (0.001)	-0.561** (0.010)			-0.568*** (0.008)	-0.864*** (0.001)
top1 inc. share_t-1							-0.001 (0.745)				-0.005** (0.022)
constant	0.673*** (0.000)	0.081 (0.300)	0.820*** (0.000)	0.306** (0.020)	0.286** (0.022)	0.218* (0.073)	0.289** (0.034)	0.941*** (0.000)	0.938*** (0.000)	1.208*** (0.000)	1.239*** (0.000)
withR2	0.119	0.201	0.196	0.268	0.353	0.256	0.277	0.102	0.104	0.100	0.103
F-test	32.280	55.549	15.036	37.061	711.130	67.041	50.868	20.463	17.639	37.340	10.617
obs	1686.000	1686.000	1257.000	1257.000	1014.000	1122.000	984.000	1013.000	1013.000	911.000	708.000
number of sectors	98.000	98.000	86.000	86.000	86.000	86.000	75.000	72.000	72.000	72.000	63.000

Notes: MANU stands for manufacturing sectors, SERV stands for service sectors. The dependent variable is the within sector wage share. All estimations exclude Agriculture, Hunting, Forestry and Fishing; and Mining and Quarrying sectors as well as public sectors (Public Administration and Defence; Compulsory Social Security; Education; Human Health and Social Work Activities). Estimations performed using the within estimator with autocorrelation, cross-sectional correlation and heteroscedasticity robust standard errors. P-values below the estimation coefficients in parenthesis. *, **, *** denote statistical significant at the 1%, 5% and 10% level, respectively.

Our results for all countries confirm the results for Austria with regard to the globalisation variables. Intermediate imports have a robust negative effect on the wage share. FDI has the same negative effects in the total pool and manufacturing, while it has a positive impact in the service sectors. The main difference with regards to measures of globalisation is posed in the case of the share of migrant workers in the total labour force, which appears to be negative for the total country pool. Similarly, our variables measuring technological change stay robust with respect to the estimation for Austria maintaining the negative sign for the ICT and positive sign for non-ICT capital services. One major difference in the total country pool as opposed to the estimation results for Austria is that measures of bargaining power are a strong and robust driver of wage shares for all countries. Union density and adjusted bargaining coverage have a robust positive effect on the wage share, as does government spending. Interestingly household debt is less robust for the total country pool. We don't report specifications with financial income and payments for the total country pool since their coefficients were not robust to changes in sample and estimation method. Interestingly, our robust measures of bargaining power render the effect of technology insignificant in specifications (7) to (9). We experiment with different measures of personal income inequality but fail to confirm the negative effect observed for Austria except for estimations with service sectors only. However, since the top income data is available for a limited number of countries and reduce our observations by a quarter the reliability of this result for the pool of all countries can be questioned. Table 8 and 9 report our results for disaggregated skill groups. Our results are largely robust to estimations with alternative dependent variables, such as the wage share without the adjustment for self-employed workers, as well as wages and salaries as a ratio to value added, and a sample without the outliers where we drop all observations where the wage share exceeds one.

Table 8: Estimation results for pool of selected OECD countries, high and low skilled manufacturing sectors

	allC_ML_1	allC_ML_3	allC_ML_4	allC_ML_6	allC_ML_7	allC_ML_8	allC_ML_9	allC_MH_1	allC_MH_3	allC_MH_4	allC_MH_6	allC_MH_7	allC_MH_8	allC_MH_9
growth	-0.171*** (0.000)	-0.194*** (0.000)	-0.306*** (0.000)	-0.311*** (0.000)	-0.276*** (0.000)	-0.286*** (0.000)	-0.288*** (0.000)	-0.142*** (0.001)	-0.143*** (0.000)	-0.215*** (0.000)	-0.224*** (0.000)	-0.202*** (0.000)	-0.225*** (0.000)	-0.238*** (0.000)
capital stock_t-1	0.102*** (0.000)	0.089** (0.013)						0.057* (0.052)	0.054** (0.031)					
int. imports_t-1	-0.190* (0.072)	0.000 (0.998)			-0.284*** (0.001)			-0.135*** (0.001)	-0.068 (0.103)			-0.300*** (0.002)		
other imports_t-1	0.020 (0.453)	0.061*** (0.005)			0.032*** (0.002)			0.073** (0.013)	0.134*** (0.000)			0.120*** (0.000)		
tot. union density_t-1		0.006*** (0.000)		0.002* (0.053)	-0.000 (0.940)	0.001 (0.529)	0.004 (0.152)		-0.000 (0.943)		0.004** (0.034)	-0.002 (0.237)	-0.003 (0.276)	0.001 (0.759)
social government_t-1		0.015* (0.064)		0.023*** (0.000)	0.021*** (0.000)	0.023*** (0.000)	0.021*** (0.000)		0.018*** (0.001)		0.026*** (0.000)	0.013*** (0.005)	0.020*** (0.001)	0.021*** (0.003)
bargaining cov_t-1		0.001 (0.233)		-0.001 (0.455)	0.001 (0.289)	-0.000 (0.997)	-0.001 (0.444)		0.006*** (0.000)		0.003** (0.033)	0.007*** (0.000)	0.007*** (0.000)	0.005** (0.013)
ICT capital_t-1			-0.017*** (0.000)	-0.023*** (0.000)	-0.006 (0.324)	-0.003 (0.651)	-0.005 (0.627)			-0.029*** (0.000)	-0.012* (0.074)	0.002 (0.842)	-0.002 (0.751)	0.012 (0.446)
non-ICT capital_t-1			0.145*** (0.000)	0.117*** (0.000)	0.109*** (0.000)	0.111*** (0.000)	0.138*** (0.000)			0.018 (0.455)	0.016 (0.603)	0.016 (0.616)	0.015 (0.616)	0.013 (0.695)
outward FDI_t-1			0.236*** (0.003)	0.179** (0.035)	0.264*** (0.002)	0.152* (0.078)	0.164 (0.118)			-0.014** (0.036)	-0.015** (0.029)	-0.013* (0.058)	-0.015** (0.023)	0.035 (0.242)
hh debt_t-1					-0.004 (0.865)	-0.020 (0.405)	0.002 (0.928)					0.048* (0.086)	0.038 (0.198)	0.048 (0.128)
migration_t-1					-0.292* (0.091)	-0.066 (0.458)	-0.344 (0.136)					-1.253*** (0.000)	-0.864*** (0.000)	-1.242*** (0.000)
top1 inc. share_t-1							0.004 (0.253)							0.001 (0.889)
constant	0.697*** (0.000)	0.189* (0.060)	1.379*** (0.000)	0.934*** (0.000)	1.013*** (0.000)	1.064*** (0.000)	1.158*** (0.000)	0.645*** (0.000)	-0.039 (0.726)	0.606*** (0.000)	0.015 (0.922)	0.081 (0.594)	-0.030 (0.810)	0.008 (0.953)
withR2	0.115	0.205	0.313	0.368	0.351	0.325	0.324	0.135	0.240	0.194	0.299	0.445	0.332	0.369
F-test	28.825	60.642	53.989	89.906	467.353	89.225	90.016	45.426	34.637	12.492	39.653	764.790	97.362	44.273
obs	941.000	941.000	670.000	670.000	533.000	592.000	525.000	745.000	745.000	587.000	587.000	481.000	530.000	459.000
number of sectors	54.000	54.000	40.000	40.000	40.000	40.000	35.000	44.000	44.000	46.000	46.000	46.000	46.000	40.000

Notes: ML stands for low skilled manufacturing sectors, MH stands for high skilled manufacturing sectors. The dependent variable is the within sector wage share. All estimations exclude Agriculture, Hunting, Forestry and Fishing; and Mining and Quarrying sectors as well as public sectors (Public Administration and Defence; Compulsory Social Security; Education; Human Health and Social Work Activities). Estimations performed using the within estimator with autocorrelation, cross-sectional correlation and heteroscedasticity robust standard errors. P-values below the estimation coefficients in parenthesis. *, **, *** denote statistical significant at the 1%, 5% and 10% level, respectively.

Table 9: Estimation results for pool of selected OECD countries, high and low skilled service sectors

	allC_SL_1	allC_SL_5	allC_SL_6	allC_SL_8	allC_SL_9	allC_SH_4	allC_SH_5	allC_SH_6	allC_SH_8	allC_SH_9
growth	-0.373***	-0.376***	-0.362***	-0.344***	-0.340***	-0.210***	-0.214***	-0.211***	-0.251***	-0.212***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
capital stock_t-1										
int. imports_t-1										
other imports_t-1										
tot. union density_t-1		0.000	0.001	0.001	0.002		0.001	0.002	0.001	0.006**
		(0.557)	(0.393)	(0.457)	(0.397)		(0.409)	(0.200)	(0.680)	(0.033)
social government_t-1			0.010*	0.007	0.004			-0.008	0.003	0.003
			(0.059)	(0.186)	(0.500)			(0.138)	(0.612)	(0.656)
bargaining cov_t-1			0.000	-0.001*	-0.002*			-0.001*	-0.000	-0.003
			(0.930)	(0.085)	(0.087)			(0.074)	(0.902)	(0.168)
ICT capital_t-1	-0.027***	-0.026***	-0.027***	-0.048***	-0.025*	-0.002	0.005	0.009	0.035**	0.050***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.057)	(0.674)	(0.527)	(0.310)	(0.027)	(0.000)
non-ICT capital_t-1	0.094***	0.091***	0.082***	0.108***	0.087***	0.055***	0.052***	0.049***	0.023	0.013
	(0.000)	(0.000)	(0.003)	(0.000)	(0.008)	(0.001)	(0.001)	(0.003)	(0.327)	(0.577)
outward FDI_t-1	0.299	0.400	0.023	-0.165	-0.569	0.098**	0.106**	0.119***	0.120***	0.147***
	(0.611)	(0.535)	(0.973)	(0.852)	(0.549)	(0.010)	(0.019)	(0.003)	(0.006)	(0.001)
hh debt_t-1				0.059**	0.066***				-0.117***	-0.105**
				(0.019)	(0.006)				(0.002)	(0.019)
migration_t-1				-0.291	-0.331				-0.744***	-1.254***
				(0.332)	(0.486)				(0.001)	(0.004)
top1 inc. share_t-1					-0.011**					-0.000
					(0.035)					(0.941)
constant	1.212***	1.190***	0.985***	0.935***	1.165***	0.859***	0.838***	1.014***	1.356***	1.432***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
withR2	0.221	0.222	0.231	0.227	0.205	0.064	0.067	0.080	0.135	0.158
F-test	59.843	71.882	74.527	384.557	234.690	10.822	9.155	9.591	44.314	63.203
obs	431.000	431.000	431.000	379.000	331.000	582.000	582.000	582.000	532.000	451.000
cx	27.000	27.000	27.000	27.000	24.000	45.000	45.000	45.000	45.000	39.000

Notes: SL stands for low skilled service sectors, SH stands for high skilled service sectors. The dependent variable is the within sector wage share. All estimations exclude Agriculture, Hunting, Forestry and Fishing; and Mining and Quarrying sectors as well as public sectors (Public Administration and Defence; Compulsory Social Security; Education; Human Health and Social Work Activities). Estimations performed using the within estimator with autocorrelation, cross-sectional correlation and heteroscedasticity robust standard errors. P-values below the estimation coefficients in parenthesis. *, **, *** denote statistical significant at the 1%, 5% and 10% level, respectively.

Globalisation

Intermediate imports exercise a negative effect on the wage share in high and low skilled industries alike for the total country pool in line with our estimations for Austria. We obtain the same results for estimations in first differences and the effect appears to be even more robust when wages and salaries as a ratio to value added is employed as a dependent variable.

Our results for outward FDI are also confirmed for the total country pool. We obtain a negative coefficient in the total pool and in manufacturing sectors, while the coefficient turns positive when the sample is reduced to solely service sectors. In contrast to estimations for Austria our results for the manufacturing pool seem to be driven by high skilled manufacturing sectors rather than low skill skilled sectors, while the positive sign is driven by high skilled service sectors. We are more confident with regards to our results from the estimations in level given that our panel is usually much shorter when estimated for the total country pool and non-stationarity concerns carry less weight.²⁵ However, if estimated in first differences the coefficient becomes insignificant although it maintains its negative sign. While the lack of statistical robustness appears to be in contrast to our findings for Austria it just emphasises the need for single country estimations, because our results for the total pool might be driven by unbalanced availability of FDI data for certain countries. Similar concerns are in place regarding the effect of the share of foreign labour force. Many of our estimations for the total country pool show a negative effect, indicating that migrants exercise downward pressure on wages, but given the positive effect we obtained in the estimations for Austria it drags the questions of which countries drive the coefficient.

Summing up, we confirm our findings regarding the strong negative effect of globalisation for Austria for the total country pool. Intermediate import penetration and migration seem to exercise the most robust downward pressure on the wage share in our sample of selected OECD countries.

Technology

Our finding for different measures of the capital stock are again strongly in line with the results for Austria. ICT capital services exercise a negative effect on the wage share while

²⁵ Our panel length comprises between 11 and 14 years for the specifications including outward FDI while we reach up to 20 years for estimations for Austria alone. Furthermore panel unit root tests provide mixed results as to whether FDI has a unit root. However, given the null hypothesis of the panel unit root tests we can't reject the possibility that some of our cross sections have a unit root.

non-ICT services affect the wage share positively although the coefficient is not robust. However, ICT capital services are statistically insignificant for estimations in first differences. Total capital stock has a significant positive effect whenever it is included in the estimations. Again we fail to find a skill bias for the effect of technological change on the wage share. There is no indication of a switch in the sign of our measures of capital stock when estimated for different skill groups. Interestingly, although these variables are mostly statistically significant when combined with individual bargaining variables measure on the country level they become insignificant when combined with all bargaining variables and migration.²⁶ As for Austria our bargaining variables are measured on the country level and can therefore be seen as period specific effects. Since most previous studies based on the aggregate wage share as opposed to sectoral measures operated with a panel similar to ours (IMF, 2007; EC, 2007) it is well possible that the significant effect that was captured by period effects was in fact driven by omitted bargaining variables.

Country-level variables and measures of bargaining power

In contrast to our estimations for Austria we find very robust and strong effect of bargaining variables on the wage share. Union density has a strong positive effect on the wage share as does adjusted bargaining coverage and social government spending. The positive impact of union density is driven more by manufacturing sectors than services. When measured at the sectoral level union density maintains its statistically significant positive coefficient for specification (3) in the total sector pool and is again most robust for estimations for the manufacturing sector.

Both measures of government spending provided similar results, although the robustness is strongest for the manufacturing pool only. The positive effect of the variables appears to be driven by the manufacturing industries, and there by high and low skilled sectors alike.

However, apart from the adjusted bargaining coverage in some specifications neither union density nor social government spending appear to be statistically significant in first difference estimations. Different scholars from the field of industrial relations have maintained that bargaining coverage is in fact the most important indicator of workers

²⁶ We have less concerns combining our bargaining variables for the total country pool since the pairwise correlation never exceeds .65 and since our results are mostly robust to the exclusion of individual variables.

bargaining power, even more relevant than union density (Visser, 2006). Consequently, our findings can be seen as an indicative confirmation of this hypothesis.

Our financialisation variables appear to be insignificant for the total country pool, and household debt has a perverse positive sign in some specifications, albeit rarely significant. However, financialisation developed in very different ways across countries. For instance, while Anglo-Saxon countries experienced a strong surge in household debt the increase in this measure was comparatively low in some continental European countries like Austria, Germany, Italy and Sweden. Similar considerations apply to financial income and payments. Again these concerns are best addressed by single country estimations.

The income share of the top one percent is statistically significant for the total sector pool as well as estimations for service sectors only, largely confirming the hypothesis of a negative relationship between personal and functional income distribution raised by Atkinson et al. (2011). However it turns insignificant in estimations in first differences.

Furthermore we experimented with a measure of minimum wages as a ratio to the sectoral average wage as well as the growth rate of real minimum wages but results were inconclusive and not robust to changes in the specification or estimation method.