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Institutions and Economics: 30 Years After the Fall of the Iron Curtain

Paul Wachtel Reflections on Transition After 30 Years: Transition vs. Convergence¹

There is no doubt that the fall of the Berlin Wall in 1989 and the dissolution of the Soviet Union two years later were dramatic and significant historical watersheds. The Cold War that defined international relations in the post-World War II era came to an end and with it the idea that central planning and state ownership were viable approaches to economic organization. In the course of a few years, about 30 countries were thrust into a transition from one system to another. Many observers thought at the time that transition would take a very long time and involve enormous economic shocks. In fact, the depth of the transition shocks was probably underestimated. Many transition economies experienced both enormous declines in output and hyperinflation immediately after the onset of transition. However, my contention here is that transition did not take as long as anticipated and that in many instances the differences between transition economies and “normal” economies was smaller than originally thought. Thus, it is now no longer necessary to think of these countries as transition economies. Instead, the 30 odd countries of transition are emerging market economies that look very much like their peers without the same central planning legacy.

The differences between developing economies with extensive government intervention and direction of market outcomes and ones where communist ideas – government control of all resources and the absence of market mechanisms to determine prices – prevailed were overemphasized. Political realities more than economics gave emphasis to the differences between the Soviet bloc and the rest of the world since the Iron Curtain veiled the entire bloc – particularly in the eyes of the postwar baby boom generation that grew up in its shadow. But the fact was that many third world (as they were then called) economies were highly controlled statist economies and many communist coun-

tries had some market mechanisms or were starting to introduce market-oriented reforms.² In the postwar period prior to transition, both developing and communist countries emphasized capital accumulation. They differed with respect to the strength of the planning mechanism – whether it was centralized control or centralized nudging. The objective – invest for import substitution – was shared by communist countries and many former colonies that gained independence in the postwar period. Banks in many developing countries were largely state-owned and the financial system was used to channel credit in support of government objectives; further, major industries were often state-owned resulting in state control of a large share of output. The extent of state ownership did suggest some significant differences between developing economies and communist countries, and the communist countries were distinguished by efforts to abolish private ownership of property altogether.

These observations are made with the benefit of hindsight and differ from the standard views at the time transition began. The dissolution of communist regimes was rightfully viewed as a unique occurrence. As “*The Economist*” opined (March 24–30, 1990, p. 22):

“Hundreds of books have been written on the transition from capitalism to communism but not the other way. There is no known recipe for unmaking an omelet.”

Further, it was assumed that the unmaking would take a very long time. As a result, new institutions were developed to study the new phenomenon: SITE at the Stockholm School of Economics started in 1989, the Bank of Finland’s Review of Economies in Transition began publishing in 1991 and became part of BOFIT, and the European Bank for Reconstruction and Development started operation in 1991 and established the journal, *Economics of Transition*, in 1993.

In the introduction to the first issue of *Economics of Transition* (1(1), p. 2), Jacques Attali, President of the EBRD, wrote:

“Immediately after the overthrow of totalitarianism, the consensus approach was to favour a simple and immediate implementation of laissez-faire doctrines... Today there is growing awareness of



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¹ Able research assistance from Aparajitha Suresh is much appreciated.

² Yugoslavia was always “reformed”; central European economies had moderately large amounts of private sector activity and ownership and had begun to reform; even Russia introduced reforms by the 1980s. Without any political reforms, China turned to private entrepreneurship in the quest for economic growth.

that these countries face structural and institutional obstacles...”

He then went on to cite examples of institutions that were weak or non-existent in these countries such as means for tax collection or methods for transferring securities or property ownership or a banking system based on lending. He concluded:

“...it is impossible to divorce economic questions from the wider institutional background against which they arise...it is not just a question of putting in place market economies: it is a question in many cases of rebuilding the entire fabric of a nation.”

His brief comments suggest a realization that the essence of transition from the very start was institutional development. Perhaps what made transition seem so different was the fact that economists at that time were just beginning to think about the importance of institutions.

The new institutional economics (NIE) which emphasizes the role of political structures and public institutions was gaining prominence just as transition was occurring (see Williamson 2000).³ In a survey, Murrell (2008) shows how studies of transition through the 1990s slowly began to appreciate the importance of NIE. In addition, empirical work demonstrating the importance of institutions in economic outcomes generally did not begin to appear until the 1990s. For example, empirical work on the finance-growth nexus that associates credit deepening and the quality of financial intermediation with economic growth begins with Barro (1991) and King and Levine (1993), among others, with cross-country panel data sets and Wachtel and Rousseau (1995) with historical time series data. Similarly, the cross-country empirical literature on legal institutions starts with the LaPorta, Lopes-de-Silanes, Shleifer, and Vishny (1998) research on law and finance, which focused on the protections for investors in different legal systems. Research on the role of cultural institutions on economic outcomes, such as the influential book by Acemoglu and Robinson (2012), is even more recent.

Economics was developing an appreciation for NIE just as transition was occurring. The lessons of transition for NIE were observed by Ronald Coase in his 1992 Nobel address (quoted by Murrell, 2008, p. 672):

“The value of including institutional factors in the corpus of mainstream economics is made clear by recent events in Eastern Europe...without appropriate institutions no market economy of any significance is possible.”

Murrell suggests that the early failures of transition reforms (e.g., the privatization and banking debacles) made economists generally more aware of NIE. The

intellectual influences between NIE and transition ran in both directions.⁴

Measurement of institutional development and quality only began in the 1990s. Among the first such efforts were the EBRD’s Transition Indicators, introduced in 1994, which are very popular and widely used in the research community.⁵ Havrylyshyn and van Rooden (2003) discuss a number of other institutional indicators, most of which started about the same time. The very popular global data from the World Bank’s Doing Business project were only introduced in 2002.

The political and economic shock of transition brought about surprisingly deep recessions. This was true in countries that adopted a “shock therapy” policy as well as those that chose a more gradualist approach. The argument that transition was surprisingly rapid does not imply that the recession shocks were mild. The transition recessions were deep and the dislocation of resources, individuals, and institutions was extensive (Campos and Coricelli 2002). Nevertheless, within a few years, efforts to measure transition progress began to appear. An early retrospective by the Task Force on Economies in Transition (National Research Council, 1998) stated that (pp. 1–2):

“Current reforms will alter fundamentally the way post-communist societies, political systems, and economies function and interact. More than 5 years into the process, what do we know about social change at this pace and scale?

From its inception, the task force doubted that present versions of any existing theories – including various theories preferred by its own members – could adequately encompass these extraordinarily complex processes and explain the very different rates and patterns of transformation across the post-communist world.

Moreover, many people thought that road was plainly marked: stabilization, liberalization, and privatization would transform highly bureaucratized, statist economic systems into dynamic, competitive capitalist economies.”

Anders Aslund (National Research Council, 1998, chapter 18) provided an early evaluation of transition progress. He suggests three criteria for transition progress: stabilization (particularly of inflation), liberalization, and private sector development. By 1997, transition, according to these criteria, was accomplished in most countries with the exception of five failures: Azerbaijan, Belarus, Bulgaria, Tajikistan, and Turkmenistan. In Bulgaria, failure was due to the inability to stabilize the macro economy and lower inflation. In the others, there was little effort to embark on deregulation or liberalization; a market economy had not been established.⁶

³ NIE has origins in economic theory that go back many years. The importance of institutions was more broadly recognized when Douglas North and Robert Fogel shared the 1993 Nobel Prize “for having renewed research in economic history by applying economic theory and quantitative methods in order to explain economic and institutional change.”

⁴ Olofsgård, Wachtel, and Becker (2018) discuss the influence of transition on the economics literature.

⁵ See <https://www.ebrd.com/what-we-do/economic-research-and-data/data.html> and Myant and Drakokoupi (2012) for a critical evaluation

⁶ Another early retrospective on transition, Fischer, Sahay, and Vegh (1996) focused on macroeconomic performance in the early years.

The ten-year mark led to several retrospectives on transition progress including studies from the IMF (Fischer and Sahay 2000), the World Bank (2002), and the EBRD (Gros and Suhrcke 2000). Fischer and Sahay (2000) examines differences across the region in the initial transition shock:

Table 1

	GDP decline	End of decline
Central and Eastern Europe	28%	1992
Baltics	43%	1994
Other former Soviet Union	54%	1995

By 1998, only three countries had recovered sufficiently to match the level of GDP prior to transition (1989): Poland, Slovakia, and Slovenia.⁷ Further, monetary stabilization had brought inflation rates to single digits in most countries by 1998. The report emphasizes the differences emerging at the ten-year mark in transition progress between CEE and the FSU countries.

Along similar lines, Gros and Suhrcke (2000) ask whether we can distinguish transition economies from the other 130 countries of the world, holding the level of GNP per capita constant. The answer is yes but it is not a very strong yes. The transition economies have more employment in industry, more energy use, and a higher fraction of the population in secondary and tertiary education, all legacies of the structure of planned economies. There is a split among the transition countries when measures of financial and institutional framework are examined; the central European countries which were candidates for EU membership were indistinguishable from other countries with their level of GNP, but the CIS and SEE countries lagged.

A symposium in the *Journal of Economic Perspectives* in 2002 provided comprehensive evaluation of the transition economies. Svejnar (2002) made a distinction between type I reforms (macroeconomic stabilization, price liberalization, small-scale privatization, and breakup of state-owned enterprises) and type II reforms (large-scale privatization and development of banking and legal systems). This typology is useful today to distinguish between transition and development. Transition is characterized by the first type of reforms, macroeconomic stabilization and the establishment of a market economy. In that sense transition had been completed by the late 1990s.⁸ Even with transition in this narrow sense complete, many countries were still very poor and vulnerable to crony capitalism and structural rigidities that could inhibit growth.

In this view, transition to a market economy with the end of the communist era took place quickly. So why is it so often viewed as a complex and lengthy process? The answer lies in the distinction between transition (to a market economy) and convergence (to a Western level of development). The creation of the institutions

that make Western economies successful engines of growth is quite something else. Thus, convergence to living standards found in developed countries takes a long time. Many non-communist societies are bureaucratized and statist because institutions to foster competition and increased productivity do not exist. Poor institutions have made the pace of convergence very slow though large parts of the noncommunist world (e.g., much of Latin America, Africa, the Middle East, South Asia) although these countries did not have to go through a transition. The slow pace of convergence is a global issue and not a problem specific to transition.

The transition countries differ among themselves in the way that they undertook the reform process. In the early years of transition, western economists debated the merits of big bang vs gradualism. In a 15-year retrospective on transition Havrylyshyn (2007) examines the difference between rapid reformers and gradualists. Table 2 shows his grouping of countries by their early reform strategies. It goes without saying that the big bang countries (in the first column) have out-performed the gradual reformers (in the next to last column). However, a quick glance suggests that the distinguishing factors might not have been a random choice of reform strategy. The rapid reformers had initial institutions and cultural attitudes that enabled them to succeed.

Table 2

Transition Countries Grouped by Early Reform Strategies

Sustained Big-Bang	Advance Start/ Steady Progress	Aborted Big-Bang	Gradual Reforms	Limited Reforms
Estonia	Croatia	Albania	Azerbaijan	Belarus
Latvia	Hungary	Bulgaria	Armenia	Uzbekistan
Lithuania	Slovenia	Macedonia	Georgia	Turkmenistan
Czech Republic		Kyrgyzstan	Kazakhstan	
Poland		Russia	Ukraine	
Slovakia			Tajikistan	
			Romania	

Source: Havrylyshyn (2007, page 6).

Countries with a greater willingness and ability to undertake reforms were able to stabilize their economies and create market institutions that put them on the road from transition to convergence. This conclusion is echoed in the IMF's (2014) history of the first 25 years of transition; the report's executive summary says (p. v):

"To revitalize the convergence process [after the financial crisis,] ... stronger commitment to market-based policies is needed. Two broad priorities stand out. First, a renewed focus on macroeconomic and financial stability in some countries, to rein in persistent deficits and increasing debt, and to address rising levels of bad loans in banks. Second, to raise the pace and depth of structural reforms in areas such as the business and investment climate, access to credit, public expenditure prioritization and tax administration, and labor markets."

It is interesting that this conclusion says nothing about the communist era's legacy; it could be applied as a prescription for convergence to any emerging mar-

⁷ GNP is an imperfect measure of economic well-being for countries undergoing structural upheaval and is subject to measurement error during the transition. The GNP declines overstate the fall in consumption and well-being. Nevertheless, income inequality, measured by Gini coefficients, increased in most countries during the 1990s.

⁸ With the exception of Aslund's five failures noted above.

ket or developing economy around the world. Transition is complete in the sense that the formerly planned economies might be indistinguishable from other countries around the world.

To compare the transition countries to others, we divide them according to their World Bank income group. Among the transition countries, eight are lower middle income, 13 upper middle income, and eight are high income.⁹ The high income countries are the Baltics and the formerly planned central European countries. The upper middle income countries are five former Soviet republics now in the CIS, mostly those like Russia with natural resource wealth, and countries in southeastern Europe. The lower middle income countries are all former Soviet republics.

Table 3 shows data on the economic structure from the World Bank. The average for the transition countries and for all the countries in the income group are shown. The data on the structure of GDP suggests two observations. First, there are not enormous differences between the transition economies and peers in their income group. Second, the differences observed reflect communist-era legacies that are slow to change. For example, there is more manufacturing in the high income transition economies than in their peers, and less in the upper and lower middle income groups than in their peers. This reflects the structure of economic planning in the communist world, which concentrated manufacturing in central Europe. There is about as much capital formation in the transition economies as elsewhere but less expenditure on education and on R&D. There tend to be more armed forces personnel in the transition economies than elsewhere because a handful of the countries are in or not far removed from conflict (e.g., Georgia, Ukraine, Bosnia, Serbia).

The structure of output and the characteristics of the labor force are areas where path dependence from the communist era is slow to change. However, much of the discussion of transition emphasizes the creation of institutions that did not exist in the communist era. In some instances, institutions have developed slowly; in others, not. Table 4 contains data on the business and financial environment, which shows the extent to which institutional change has occurred.

The financial sectors of transition economies at all levels of income lag those elsewhere. Domestic credit to the private sector as a percent of GDP is much smaller than in comparable upper middle or high income countries.¹⁰ On the other hand, the World Bank's Doing Business surveys indicate that substantial progress has been made. The time required to start a business or

enforce a contract is much lower in lower middle and upper middle income transition countries than elsewhere. Interestingly, the high income transition countries where legal institutions existed prior to transition and where EU membership led to substantial reforms still lag their peers. The credit indexes show that for all income groups, the credit environment is better in transition countries than in their peers. Perhaps where new institutions were created from scratch, they are created with the benefit of experience around the world. Moreover, it is easier to create new institutional frameworks than enterprises and industries. Finally, when it comes to the technologies that postdate transition – mobile phones and internet use – the transition countries have largely converged with their peers.

In Table 5 we show data from the IMF for the transition countries in each income group and a sample of others in the group (the control). The government sectors are not noticeably different in transition and control countries. In the bottom of the table, we provide information from the IMF's Financial Development Index Database, which combines World Bank data on financial institutions and information from the financial access survey. Financial Institutions Depth is a measure of the amount of intermediation relative to GDP. Financial Markets Depth is an index that measures the size of stock market capitalization and trading and debt securities to GDP. The Financial Institutions index combines the depth measure with indexes of financial institution access and efficiency. Similarly, the Financial Markets index combines the depth index with indexes of access and efficiency. The maximum score on each of these indexes is 1.0.

The depth of financial institutions (which consists largely of bank credit to the private sector as shown in Table 4) and of financial markets is substantially lower in transition countries than elsewhere for all income groups. The differences are less profound for the aggregate indexes that combine depth, access, and efficiency.

All in all, it would be an overstatement to say that transition economies are indistinguishable from their emerging market peers. In some respects, the transition world clearly lags, namely in the development of financial institutions. On the other hand, these same countries have outstanding performances in the use of technology and in putting in place business-friendly institutions.

When transition sprang into view almost 30 years ago, we thought that it would be very important because of the unique nature of the transition from a planned to a market economy. To the surprise of many, the changes occurred very quickly and the transition countries – though sometimes unstable and struggling – do not look all that different than emerging market economies around the world. This is particularly true in areas where new technologies or new institutions have grown around the world during the transition generation. In this respect, transition was important because

⁹ Data is not collected for Kosovo and Montenegro and data for some other countries is often missing.

Lower middle income transition economies: Armenia, Georgia, Kyrgyzstan, Moldova, Tajikistan, Ukraine, Uzbekistan.

Upper middle income transition economies: Albania, Azerbaijan, Belarus, Bosnia, Bulgaria, Croatia, Kazakhstan, Macedonia, Romania, Russia, Serbia, Turkmenistan.

High income transition economies: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia.

¹⁰ Further evidence on the lagging financial sectors is shown in Table 3.

Table 3

Economic Structure

	Lower middle income		Upper middle income		High income	
	Transition	All	Transition	All	Transition	All
Structure of output, % of GDP, 2015						
Industry output	23.6	29.0	29.2	33.1	27.6	22.9
Manufacturing	11.1	15.7	11.6	20.4	18.0	14.2
Gross capital formation	26.1	27.6	23.9	32.1	22.8	21.8
R&D expenditure	0.3	--	0.6	1.5	1.4	2.5
Government expenditure on education	5.3	--	3.6	4.3	4.9	5.2
Labor force, 2015						
Male labor force participation (% population 15+)	67.3	77.7	66.1	75.6	66.2	68.4
Female labor force participation (% population 15+)	47.2	35.4	50.1	55.0	52.1	52.4
Researchers per million	--	--	1375	1201	2822	4158
Armed forces, % of labor force	1.2	0.8	1.7	0.8	0.9	0.9
Education – school enrollment, 2016						
Secondary	--	69.6	98.9	93.0	106.8	108.5
Tertiary	37.9	24.2	60.8	50.7	65.9	77.1

Note: Data not shown if not available or if it is available for less than one-half the countries in the group.

Source: Author's calculations.

Table 4

Business and Financial Environment

	Lower middle income		Upper middle income		High income	
	Transition	All	Transition	All	Transition	All
Structure of finance, % of GDP						
Domestic credit to private sector, 2017	35.9	43.6	43.6	115.3	48.8	148.8
Broad money, 2016	40.8	65.1	56.8	146.4	--	122.5
Doing Business survey, 2015						
Starting a business –time required (days)	7.1	27.5	17.9	30.3	15.2	12.0
Enforcing contracts – time required (days)	402	691	488	632	650	616
Getting Credit indexes, 2015						
Strength of legal rights (0–12)	7.2	4.8	6.2	5.0	6.9	5.4
Depth of credit information (0–8)	6.7	4.2	6.3	4.9	6.5	5.8
Technology use						
Mobile cellular phones per 100 people	113.3	88.4	125.6	105.4	128.6	123.7
% of population using internet	45.2	26.7	61.7	52.0	75.6	79.6
Energy use, kg of oil equivalent per capita, 2014	1095	642	2491	2193	3005	4733
Quality of business environment						
	Transition	Control	Transition	Control	Transition	Control
Corruption perceptions, 2018	34.0	38.0	36.9	39.5	58.1	72.0
Institutional Investor credit rating, 2016	29.1	42.3	43.4	47.2	70.1	79.4

Note: The control group countries were randomly chosen from the World Bank list of countries in the income group, omitting very small countries and countries in conflict. The number in the control group is the same as the respective number of transition countries.

Source: Author's calculations.

Table 5

Government Finance and Financial Institutions, IMF Data

	Lower middle income		Upper middle income		High income	
	Transition	Control	Transition	Control	Transition	Control
Government finances, % GDP, 2017						
Government revenue	30.6	--	34.9	29.1*	39.5	41.5
Government borrowing	-1.2	--	-0.2	-4.6*	-0.4	-0.5
Primary borrowing	0.2	--	1.1	-2.0*	1.0	1.4
Financial institutions quality and access, 2017						
Financial institutions	.38	.37	.47	.49	.55	.73
Financial institutions depth	.10	.21	.17	.31	.28	.69
Financial markets	.07	.13	.09	.28	.16	.56
Financial markets depth	.06	.16	.11	.27	.13	.68

Notes: * 2009 data. See note to Table 2 for definition of control groups. The financial indexes are based on World Bank data and the financial access survey. Financial Institutions: Aggregate of Financial Institutions Depth Index, Financial Institutions Access Index, and Financial Institutions Efficiency Index. Financial Institutions Depth: Compiles data on bank credit to the private sector in percent of GDP, pension fund assets to GDP, mutual fund assets to GDP, and insurance premiums and non-life to GDP. Financial Markets Index: Aggregate of Financial Markets Depth Index, Financial Markets Access Index, and Financial Markets Efficiency Index. Financial Markets Depth: Compiles data on stock market capitalization to GDP, stocks traded to GDP, international debt securities of government to GDP, and total debt securities of financial and non-financial corporations to GDP.

Source: Author's calculations.

it became a laboratory that taught economists and policy makers a great deal about economic growth and development, particularly the role of institutions. The transition experience turned attention to institutions and away from traditional development ideas that emphasized capital accumulation. Nevertheless, the puzzle about the next stage remains. In both transition and other emerging market economies, convergence continues to be very slow. Perhaps further study of the transition experience can help us understand how to speed it up.

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Hartmut Lehmann and Mark E. Schaffer Transition, Convergence, and Labor Market Adjustment in Prospect and in Hindsight

CONVERGENCE

The perspective that we both took at the start of transition was that of “convergence”, but in a broader sense than the standard notion of “technological catching-up”, in which countries away from the world technological frontier can grow rapidly – “beta convergence” – by adopting already-existing innovations. This broader sense was quite natural for us, given our backgrounds in comparative economic systems and political/social history.

We both started our academic training outside the economics discipline. At the time that the socialist regimes collapsed and we became active in the economics of transition, we each had a background of some years of study in the nature of these polities and economies. HL lived and studied for two years in Poland in 1972 and 1973, majoring in Slavic languages and East European history. In the 1980s and early 1990s, he studied economics at Berkeley and at the London School of Economics (LSE); his PhD from LSE was partly on labor market adjustment in East Germany and Poland as the transition from a centrally planned towards a market economy unfolded. MS’s undergraduate degree at Harvard was in international relations and social theory, and a large part of his PhD at LSE, completed in 1990, analyzed the workings of planned economies in general and the Polish “market socialism” experiment of the 1980s in particular; his PhD supervisor at LSE was Stanisław (Staszek) Gomulka, who went on to play a key role as an advisor to the Polish governments of the early transition period. Hence we both took a broad social science perspective to looking at transition rather than a narrow economic perspective. While HL was influenced in his approach by the variant of the “new” macroeconomics of labor markets developed and taught at LSE and with a focus on highly developed capitalist economies (see Layard et al. 1991), we were both influenced by Staszek’s perspective on convergence and catching-up. Convergence and labor market adjustment were the two themes that both of us thought about while discussing transition in our shared office at LSE in the early nineties.

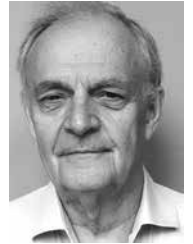
A longstanding theme in the analysis of centrally planned economies (CPEs) was the distinction between “static” and “dynamic” efficiency. Prior to the growth slowdown in CPEs in the 1970s–1980s, this presented an apparent puzzle: the socialist system had

many obvious dysfunctionalities and inefficiencies (“static inefficiency”), yet many of the countries that had adopted this system grew rapidly (“dynamic efficiency”). Convergence, and the limits to convergence, explain this puzzle. The opportunities for rapid growth by industrializing and adopting technology from already-industrialized countries enabled relatively backward countries that adopted the socialist system to grow rapidly. Specific features of the CPE system enabled catching up to proceed relatively rapidly: planning enabled high investment rates and rapid capital accumulation, and directed investment into areas that were particularly growth-enhancing, e.g., energy and transport infrastructure, and education/human capital (Carlin et al. 2013).

Eventually, however, as countries approach the technological frontier, catching-up slows down, and this is the natural interpretation of the 1970s–1980s growth slowdown. At this point, the static inefficiencies of central planning start to dominate, and we see the emergence of an “equilibrium technological gap” (Gomulka 1986, 1988). The result is a set of countries that are growing at rates not far from the rate at which the technological frontier is growing, but where productivity levels are quite low.

We can extend this perspective in three ways. First, the transition countries of Central and Eastern Europe (CEE) and the former Soviet Union (FSU) were fairly heterogeneous in terms of their productivity levels at the start of transition. From a historical perspective, however, heterogeneity in productivity levels in 1990–1992 was substantially less than heterogeneity at the time these countries adopted central planning. The FSU countries that adopted central planning in the late 1920s ranged from those that were poor and where industrialization had not proceeded very far (e.g., Russia, Ukraine) to those that were extremely poor and where industrialization essentially hadn’t yet started (e.g., Central Asia). The countries that adopted planning in the late 1940s (including the Baltics) were even more heterogeneous, ranging from very poor (e.g., southeastern Europe) to those that just prior to the Second World War were moderately rich, and belonged to the club of highly developed economic regions in Europe (e.g., Czech Republic, and of course the regions of Germany that became the German Democratic Republic). The rapid catching-up followed by growth slowdown was experienced by countries that started out relatively poor. Countries that were at or near the frontier in 1938 moved away from the frontier; by 1990 these once-rich countries were now relatively poor compared to those of a similar income in 1938 (Carlin et al. 2013).

Second, the experience of central planning endowed these countries with a range of characteristics that differentiated them from other countries with similar income levels. The list is long and well known: state ownership of assets, a relatively undeveloped service sector, a size distribution of firms with a near absence of microfirms and small and medium-sized



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enterprises (SMEs), trade patterns that conformed to planners preferences, a set of peculiar economic institutions that were appropriate for a planned and not a market economy, etc. But it is important to note that not all these were handicaps: compared to market economies with similar economies, these countries had high levels of human capital and fairly good energy, transport, and communications infrastructure.

Third, the convergence perspective can be extended beyond just “technology”. At the start of transition, the poorest of these countries had moved closer to the technological frontier, and the ones that were relatively rich when they adopted planning had moved away from it. But in terms of economic institutions, the long detour of central planning moved them all away from the institutional setups of their neighbors. The same applies, of course, to the political institutions these countries adopted during the communist era. Here again, though, there was great heterogeneity, and institutional and social memory was long-lasting. The economic, political, and social institutions of the market economy were still within living memory in the CEE countries – in some of these countries, these institutions had existed only in embryonic form, though; at the other extreme, Central Asian countries had never experienced these institutions and had industrialized entirely in their absence.

All of this was more or less apparent to us in 1990–1992, when we started working on the economics of transition. Our perspective was to look at transition economies (TEs) in terms of the removal of a set of institutional and political constraints. In the narrow technological sense, we expected – in the medium term, after the immediate output drops and “transitional recessions” – a resumption of “catch-up” productivity growth (or, in the case of the previously rich TEs, a reversal of fall-behind slow growth). This would follow from the adoption of near-frontier technology, where technology is broadly defined as “know-how” – not just technical innovations, but the institutions of a market economy. In the shorter run, we also expected large improvements in allocative efficiency – the elimination of shortages and queues, increased availability of consumer goods including imported goods, etc. But we also thought the path of transition would be influenced by the peculiar inheritances of central planning, including the positives of human and physical infrastructure as well as the more obvious negatives. And we also expected some heterogeneity in transition experiences across countries.

EXPECTATIONS IN THE SHORT, MEDIUM, AND LONG RUN

We begin by describing the expectations about the short, medium, and long run that we held at the beginning of the transition.

In 1990–1992, taking Poland as our principal point of departure and taking a five-year perspective, we

both saw great gains from the rapid entry of new private firms and the growth of the new private sector. We also predicted big gains from the recreation of the SME sector, which clearly had better development conditions than in the interwar period. Finally, we thought we would see great gains in allocative efficiency given the massive reallocation of capital and labor across and within sectors. That this reallocation was connected to substantial costs for large segments of the existing workforce is a point to which we will return below. In hindsight, our expectations for the short run were largely fulfilled – these gains were very large and very visible across a wide range of transition economies.

With respect to the medium run – say, over the next 10 to 15 years – we thought two closely related developments would have a major impact on the performance of the CEE transition economies: privatization and foreign direct investment (FDI). We both considered privatization of large firms as an important condition for further improvements in allocative and dynamic efficiency of these economies. FDI, on the other hand, brings frontier technology to economies and often creates positive externalities through technology spillovers to domestic firms.

At the beginning of the transition, however, we were overoptimistic in one important respect: we extrapolated too readily from CEE countries to the FSU transition countries. Although we were well aware of the heterogeneity of the starting points of these countries, and our optimism was well-founded with respect to the Baltic states, we were too optimistic about the direction and speed of change in the rest. The political process in the latter group of countries often led to state capture by small groups that came predominantly from the former nomenklatura and to institutions little conducive to the free development of private enterprise. Only where privatization went hand in hand with the establishment of institutions that prevent “grabbing” hands did privatization lead to truly big gains in total factor productivity (see, e.g. Estrin et al. 2009). In 1990–1992, we were, in effect, too euphoric about the collapse of communism, and saw more transition countries picking the fruits of a liberal democratic society than actually did. Where these fruits did not appear, privatization of large SOEs did not result in big gains in allocative and dynamic efficiency, nor were there large inflows of FDI. On the other hand, where these fruits did appear, the efficiency gains for privatized firms were dramatic, also because FDI inflows were large.

Over a 25+ year horizon we had grand illusions that were in large part disappointed. At the beginning of transition we expected that – although they would not all completely converge to the most advanced West European economies – some countries would come close, and the rest would be on a clear path that would bring them to the technological frontier in due course. Instead what we observe across the region are “dual economies,” a phenomenon that is typical for middle income countries in the developing world.

Large firms are the most productive, being integrated into European supply chains. Hence, we can speak of a convergence success when it comes to large firms, and here our expectations were correct. But in general the SME sector today is technically very inefficient, being far from the European technology frontier, and considerably further than where, in 1990–1992, we thought it would be today. Here we can speak of a clear convergence failure: in a nutshell, the CEE countries, even after having been members of the European Union for more than a decade, have not managed to become advanced capitalist economies, but can instead be characterized as “Middle Income Countries with Previously Socialist Characteristics.”

In order for convergence to finish, this duality needs to be eliminated, meaning that the SME sector needs to be fully integrated into modern European supply chains. For this to happen, very large investments in transport and other infrastructure would be a precondition, but this requires large investment and saving rates, both of which seem unattainable and in addition hampered by low population growth in most of these countries. The vicissitudes of political and economic reforms and restructuring over the last three decades have led to a very heterogeneous but at the same time quite uniformly disappointing picture regarding the hoped-for convergence to the European technological frontier. This disappointing picture also had important repercussions in the labor market, where a large part of the workforce reaped the benefits of the end of central planning, but where at the same time, a substantial group of workers encountered large costs. Therefore, it is worthwhile to consider in detail what we thought about labor market adjustment at the onset of transition.

LABOR MARKET ADJUSTMENT

Most labor economists who started to analyze adjustment in labor markets of transition economies saw relatively little need to focus on labor supply and thought it more important to have a close look at labor demand. This was because the empirical evidence about the behavior of households in the labor market during the socialist period seemed to imply that the standard neo-classical utility-maximization approach might be a good starting point when thinking about labor supply, even before the transition to a market-oriented economy. Whether we thought about partially reformed centrally planned economies like those of Hungary or Poland, or about the Soviet Union or Czechoslovakia where reform started only after the communists had completely relinquished power, in both types of socialist settings the vast majority of people actually chose their jobs freely. Since labor turnover was similar to that of developed capitalist economies, enterprises provided incentives especially in form of bonuses to prevent the most productive workers from leaving. To most economists, including us, it was clear at the

beginning of the transition that we could model households as continuing to supply labor in a utility-maximizing fashion. Hence, there was less need to focus on labor supply during the initial period of restructuring. Essentially, we were convinced, as were most economists, that once economic and political constraints were removed, households would pursue their interests as they did before but with more efficacy.

Much more pressing seemed the analysis of labor demand as transition unfolded. The centrally planned economy has been characterized most convincingly as a shortage economy (Kornai 1980) where all inputs were in short supply, including labor. With wages set administratively at low levels, virtually all enterprises had excess demand for labor and did not minimize costs when hiring labor. Enterprises had to “storm” towards the end of the year in order to fulfill the targets given by the central planning authority, so they hoarded workers, some of whom were fully used only during this “storming” period.

In early transition, reform policies consisted above all of price and trade liberalization as well as macro-economic stabilization policies that included large reductions of subsidies to enterprises. Suddenly, firms were exposed to the cold winds of competition and the government no longer bailed out poor performers. A crucial question that needed to be investigated, therefore, was how firms adjusted their labor demand under these conditions.

Like many economists who looked at labor adjustment in the early years of transition, we also investigated adjustment from the demand (firm) side. We analyzed job creation and job destruction and related this to ownership types, concluding that new private firms disproportionately created jobs while SOEs dominated when it came to job destruction, a finding replicated by many studies that followed ours (Konings et al. 1996). Indeed, this early study appeared to us to confirm that our early optimism about the eventual convergence of SME sector was well-founded (that we were too optimistic became clear only much later).

All communist regimes implemented an industrial development strategy that emphasized heavy industry at the expense of light industry and services. Hence, transition to a market economy also implied a massive reallocation of labor in order to produce the employment structure of a mature capitalist economy in the medium run. This massive reallocation did occur in all post-socialist economies as documented by Boeri and Terrell (2002), but was accompanied, however, by many frictions and was characterized by large costs for many of the workers who were displaced from their jobs (Lehmann 2014). While it is true that socialist economies were characterized by human capital levels superior to those in economies that had similar per capita income levels, it is also true that the human capital of many workers rapidly depreciated at the beginning of the transition. Many workers had human capital that was employed in very narrow tasks during the central

planning regime; this human capital became obsolete or was relatively non-competitive as more and more firms adopted state-of-the-art technology.

Of course, the massive reallocation of labor brought large diffused benefits to the average person in transition countries in the medium term, but at the same time, it imposed large costs that were heavily concentrated on certain groups among the workforce, in particular older workers and workers with low levels of education. Let us take as an example the Polish economy, which as the first reformer was of particular interest to us when transition unfolded. The declared goal of the undertaken reforms, which were consistently implemented across the political divide throughout the 1990s, was to increase the competitiveness of the Polish economy. But this meant, of course, that state-owned firms or privatized firms had to restructure, which also implied the shedding of redundant labor. This process of shaking out unproductive workers went on throughout the 1990s, resulting in a large drop in employment and a large rise in unemployment. Especially older and less skilled workers had great difficulties in moving out of unemployment. Successive governments reacted to this situation by allowing a large part of the older and less skilled unemployed to take early retirement or to go on disability benefits. This “deactivation” throughout the 1990s was applied to a much larger share of the Polish workforce than we considered possible when thinking about labor adjustment in the Polish economy. In general, in all transition economies (with the possible exception of the Czech Republic), there was a large share of older and less skilled workers who, once displaced from their jobs, had great difficulties in moving out of unemployment.

Working on the labor supply side, that is, implementing active labor market policies or tightening unemployment benefit regulations, could not diminish this large group of workers, since it was weak labor demand that drove this unfortunate state of affairs. Policy makers were either unable or unwilling to help this group of workers who bore the main costs of restructuring of formerly centrally planned economies. At the beginning of the transition, we could not imagine the size of this group and the severity of the costs for this large group of transition process “losers.” Whether the neglect of this type of worker in the first two decades of the transition has contributed to the rise of populism, which is particularly strong in post-transition economies, is an interesting and open research question worth pursuing.

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Evžen Kočenda Privatization, Firms and Ownership

INTRODUCTION

The purpose of this paper is to summarize key aspects of privatization in former transition economies in Europe and the outcomes that privatization has brought to firms.

The wave of political uprisings in Central and Eastern Europe (CEE) at the end of the 1980s along with the collapse of the former Soviet Union (FSU) led to profound political, economic, and social changes in that part of the world. The demise of the dominating state ownership in the economy was seen as a natural task during the transition from a command economy towards a free market.

In the early 1990s privatization was widely considered one of the keystones of the entire transition process. The policy arguments were primarily based on successful experiences in developed as well as middle-income countries suggesting that privatization improves enterprise efficiency (Megginson and Netter 2001). The so-called Washington Consensus emphasized privatization and the belief that private ownership together with market forces would ensure efficient economic performance. However, it is understandable that privatization alone could not solve all the intricacies of transition, but systemic changes and reforms were needed as well.

Outcomes of privatization in the CEE and FSU countries were studied from both macro and microeconomic perspectives, and the extent of results is voluminous. For that, the key focus of the present assessment is targeted on privatization effects related to performance of firms, their ownership structures, efficiency, and survival. In order to understand the outcomes, a sketch of the privatization setup is presented first.

Privatization

In the CEE and FSU countries, a number of privatization processes took place. These ranged from restitutions and sales of small units to large privatization schemes. Large-scale privatization spawned considerable variation in privatization methods. However, in terms of the extent of privatized assets, mass privatization is the type of privatization that was most important. It is also what most people think of when privatization is discussed. Two key features characterize mass privatization. First, eligible citizens receive (virtually for free) vouchers, which they can exchange in an auction for

stocks of privatized firms or privatization funds.¹ As a result, a mass of domestic owners emerges. In contrast to mass privatization, and with some simplification, only three transition countries used predominantly standard methods to privatize state enterprises (mainly) to foreigners: Estonia, East Germany, and Hungary. Second, the privatization is relatively fast. The arguments for fast privatization were that (a) price liberalization and other reforms would not provide sufficient incentives for state firms to restructure and become competitive, (b) the state would not be able to resist intervening in state firms (Frydman and Rapaczynski 1991; Boycko et al. 1995), and (c) managers (and/or workers) would decapitalize firms in the absence of rapid clarification of property rights (Blanchard et al. 1991; Frydman et al. 1993). Both key features brought some unpleasant consequences, though.

Mass privatization has led to ownership structures that were initially highly dispersed because the entire adult population of the country, or all insiders to each firm, were allocated vouchers with which to purchase the shares of the company. Hence, the resulting ownership structure consisting chiefly of domestic owners was more or less an outcome of the logistics of the voucher scheme's administration. More economically meaningful patterns of ownership structure began to emerge only later on. Mass privatization was also argued to hinder the establishment of effective corporate governance, especially when long "agency chains" were created by the emergence of financial intermediaries holding privatization vouchers (Coffee 1996; Stiglitz 2002). Both ownership and governance weaknesses impacted firms' performance, in a broad sense. Gradually, it became recognized that performance is linked with ownership structure, which is even more complex when owners of foreign origin are involved or when formally privatized firms are in reality still controlled by the state.²

EFFECTS ON FIRMS

Two decades after privatizations in the CEE and FSU countries, Estrin et al. (2009) assembled a large survey based on extensive literature assessing privatization



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¹ An outline of mass privatization using vouchers (i.e., privatization without capital) emerged in 1988 in Poland. Lewandowski (1997, 35) describes that "mass privatization was a unique response to the post-communist challenge. The idea of distributing vouchers to promote equitable popular participation in privatization was elaborated by market-oriented advisers to the Solidarity movement in Gdansk, Poland, in mid-1988. Vouchers were intended to make up for insufficient supply of capital; as a special type of investment currency, they would be allocated to all citizens and tradable for shares of privatized companies. The concept was presented at a conference in November 1988 – when communists were still in power – in response to a solicitation for proposals on how to transform the Polish economy." A description of the method was published by Lewandowski and Szomburg (1990). The voucher scheme was then creatively adopted in several European transition countries.

² Specific corporate structures were established by the state as a pragmatic tool to control the economy despite the economy's publicly proclaimed private nature. Evidence of such control is scarce due to the data problems, but it was documented and quantified for example in Russia or the Czech Republic (Chernykh 2008; Kočenda and Hanousek 2012).

effects in individual countries or small groups of countries.³ Their evidence suggests that privatization and performance are related but that the relationship is more complicated than has been assumed. The type of owner and ownership structure play decisive roles.

One of the findings brought by the large survey of Estrin et al. (2009) is that privatization to foreign owners results in considerably improved performance of firms in the region. Such an effect is best characterized as a fairly rapid shift in performance rather than a gradual improvement. In contrast, the performance effect of privatization to domestic owners in CEE has been positive but smaller and often delayed. There was no or even a negative performance effect of privatization to domestic owners in the FSU. The disparity of findings between the two transition regions coincides with differences in policies and institutional development as the CEE countries were increasingly adopting European Union (EU) rules and joined the EU, while the countries of the FSU proceeded slowly when introducing a market-friendly legal and institutional system.

In terms of ownership structure, the research findings suggest that concentrated (especially foreign) private ownership has a stronger positive effect on performance than dispersed ownership in both CEE and the FSU. This is a key point that has a strong bearing on (a) mass privatization that initially yielded highly dispersed ownership preventing effective control and (b) later changes in ownership structure, often in the form of secondary privatization. In addition, worker ownership in CEE and FSU does not seem to have had a negative effect.⁴

The smaller impact of privatization to domestic rather than foreign private owners can be explained by limited skills and access to world markets on the part of the local managers. Further, domestically owned privatized firms were also the ones where performance-reducing activities such as looting, tunneling, and defrauding of minority shareholders have been most frequent. Finally, in a number of countries the nature of the privatization process initially prevented large domestic private owners from obtaining controlling ownership stakes and insiders or the state often owned sizeable holdings (Kočenda and Hanousek 2008).⁵

With respect to the differences above, Estrin et al. (2009) provide a concise summary of auxiliary measures that improve the chances that the privatization will succeed. Intuitively it is the importance of good management and corporate governance, access to world markets, and the presence of a functioning legal

and institutional framework. For the former state-owned firms, restructuring is most easily and effectively achieved by foreign ownership. Foreign firms routinely bring in capable expatriate managers and invest heavily in training local managers. They sell products through their global distributional networks, introduce a relatively advanced system of corporate governance, and stress the importance of business ethics. Corporate governance of foreign firms hence compensates to a considerable extent for the underdeveloped legal and institutional system in many transition economies. While some domestic firms have also developed good corporate governance, the underdeveloped legal system has allowed local managers (or block shareholders) in many privatized firms to maximize their own benefits at the expense of corporate performance and hence welfare of (other) shareholders as well as stakeholders such as workers and the government treasury. This is likely to account for the limited positive performance effects of privatization to domestic private owners as compared to the performance of firms privatized to foreign investors.

FURTHER EVIDENCE

As time passes, the point of privatization is more distant and the future brings changes not only in ownership, but also alterations in the scope and extent of production. Then, it might become harder to disentangle privatization effects properly. Still, large studies employing firm-level data sets are able to provide further evidence about the CEE firms that underwent privatization in the past.

Hanousek et al. (2015) examined more than three million firm/year observations and analyzed corporate efficiency in the EU, accounting for old and new EU countries, as well as pre- and post-crisis periods. While they were not able to specifically differentiate between privatized and non-privatized firms in the new EU, they could distinguish large and medium firms, most of which were privatized in the past. Their key finding shows a strong foreign ownership effect linked to improved firm efficiency. However, the impact is present in firms where a (foreign) majority owner must acknowledge ownership rights of the non-marginal categories of minority shareholders. Such a beneficial effect of foreign owners (subjected to legal or blocking minority control) in new EU countries may be further taken as evidence of corporate governance that gradually improved over time, without doubt, thanks also to inflow of the foreign direct investments (FDI) from old EU countries that overwhelmingly dominate FDI in new EU members.

The above results can be also paired with those of Baumöhl et al. (2019) who analyzed determinants of firm survival in European emerging markets after the financial crisis. Their assessment of firm-specific controls shows that foreign ownership and ownership structure with several shareholders (i.e., less concen-

³ Earlier, comprehensive, and excellent surveys can be found in Megginson and Netter (2001) and Djankov and Murrell (2002).

⁴ The above summary of findings by Estrin et al. (2009) is well echoed in results of Brown et al. (2016) who analyzed effects of privatization on performance of more than 71,000 firms from several CEE and FSU countries. The key outcome is that foreign investors raise post-privatization performance more than domestic owners, and that more concentrated ownership raises privatization effects.

⁵ It frequently took these large shareholders several years to squeeze out minority shareholders and, in the process, the large shareholders sometimes artificially decreased the performance of their newly acquired firms in order to squeeze out the minority shareholders at low share prices.

trated control) are the factors with the most significant economic impact on survival probability of large and medium firms in CEE and the FSU.

The overwhelming positive effect of foreign ownership suggests that the participation of foreign owners in the post-privatization process in many CEE countries might bring additional benefits on top of firms' performance alone. For example, in the case of FDI, it has been shown that foreign ownership, through a multinational enterprise (MNE), impacts local firms in a host economy via productivity spillovers (Görg and Strobl 2001). In later evidence, based on a meta-analysis and related chiefly to the CEE countries, Hanousek et al. (2011) document significant spillover effects. Their key result implies that local firms in CEE countries experience efficiency gains if they supply industries with a higher share of foreign firms or if foreign firms sell to them. Further, Hanousek et al. (2017) analyzed the impact of MNEs, via their FDI, on domestic firms in 30 European host economies, before and after the crisis. For the CEE countries, they document the existence of trade (export) spillovers that materialize due to interactions of domestic firms with MNEs.

The above effects are linked to privatization only indirectly. However, since the majority of large and medium firms in CEE and FSU underwent a certain type of privatization, the presented evidence is unlikely to miss the target.

CONCLUSIONS

The main reasons for using mass privatization to the hands of domestic owners were political. As there was an enormous lack of domestic capital, selling the state-owned productive assets to those who were willing to bid the highest price would have meant massive inflows of foreign capital. However, the sale of the firms, which were often presented as "national silver," to foreigners was hardly politically acceptable in early transition and such an approach to privatization was believed to be political suicide for the reformers. The Czech Republic and Russia were the pioneers in implementing the voucher method in mass privatization and throughout the 1990s many transition economies followed these examples in various forms.

However, mass privatization brought dispersed ownership structure, lack of control over management, as well as moral hazard. Lack of capital and inadequate regulatory frameworks at the onset of transition did not help either. Eventually, many privatized firms ended up in bankruptcy or had to be bailed out by the state in order to avoid it. A large number of firms were then re-privatized. At this stage, foreign owners used the opportunity and began changing the ownership landscape in CEE and the FSU. The time lag was considerable, though. Already in the very early 1990s it was evident that mass privatization is unable to immediately deliver functioning ownership structures, but FDI, as a specific privatization instrument, can generate

"responsible" owners (Artisien-Maksimenko et al. 1993).

The important lesson from this mass privatization exercise is the fact that privatization as a simple "change of title" does not work. It is true that state ownership of business assets is inherently less efficient than private ownership (Megginson 2016); however, a mere formal privatization does not guarantee improved performance, at least not in the short to medium run. The type of private ownership, corporate governance, access to know-how and markets, and the legal and institutional system profoundly matter for firm restructuring and performance.

Foreign ownership is not a panacea to guarantee a healthy and performing firm either. However, in situations where domestic owners lack money, privatization to foreign owners is a solution. This way privatization brings involvement of private investors in a firm's ownership structure that critically impacts a firm's operating and financial performance (Megginson et al. 1994). On the contrary, giving assets away to anonymous people for a token does not bring a sense of responsibility or capital needed for restructuring. The better way to privatize a firm is to sell it to real people for real money.

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Iikka Korhonen

Differences in Transition Paths: Russia versus China

INTRODUCTION AND MOTIVATION

The past four decades have seen the global economy transformed in many ways, but there was no event as large and significant as the liberalization and opening up of the formerly centrally planned economies. To illustrate this change, Figure 1 shows nominal gross domestic product in a number of countries in 1992 and 2018. China's emergence is obvious.

In this article, I shall assess the transition paths for two of the largest such economies, namely China and Russia. While there are some similarities in their transformation, the processes can be more properly described in terms of their differences: different starting points, very different political developments as well as constraints before and during the transition, different approaches to financial market and capital flow liberalization, different privatization strategies, etc.

When China's first tentative reforms started in the late 1970s, China was extremely poor. Agriculture was by far the most important sector both in terms of output and employment, while Russia was heavily industrialized and much richer when its economic reforms started in the late 1980s. According to most traditional metrics, China's human capital was at a much lower level than Russia's. Nevertheless, China has been able to constantly maintain rapid growth in the per capita

GDP, while Russia experienced a very large output drop at the outset of the transition in the early 1990s. Also, Russia's experience during the global financial crisis in 2008 and 2009 was much more unfortunate than China's.

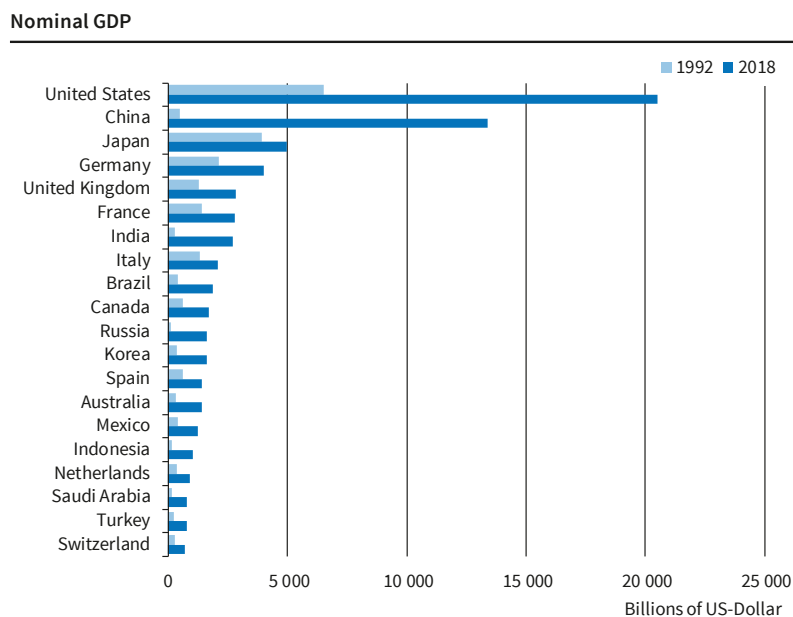
What factors account for these differences? It is likely that China's gradual growth strategy has been mostly successful so far, as many of the distortions corrected by the reforms have been quite evident. Also, comparing their political systems in the late 1980s and most of the 1990s, China was much better able to maintain control over the state apparatus and various regions, while in Russia the first years of transition were very much marked by the breakup of the Soviet Union and dissolution of the traditional trade ties. In addition, the simple fact that poorer countries, *ceteris paribus*, tend to grow faster than richer ones, has favored China (for a recent survey concerning the evidence of this income convergence, see e.g. Roy et al. 2016). It is quite possible that in the coming years, China's growth dividend from this source will be much smaller, and achieving relatively fast economic growth will be that much more difficult. The structure of China's economy already corresponds to most other middle-income countries, and services are the largest part of the economy, both in terms of output and employment. Also, urbanization is already at a high level, so shifting the labor force from the countryside to the cities can't be a further engine of growth.

At the same time, Russia has also changed considerably from the Soviet times. Its economic structure is in many ways very similar to that of other middle-income countries as well; for example, services provide the bulk of employment. The notable exception is Russia's energy sector, which remains very important in terms of value-added and export revenue, but not in terms of employment (less than 2 percent of the labor force is employed in the energy sector).



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Figure 1



DIFFERENT INITIAL CONDITIONS AND THE TRANSITION PROCESS

When China began its first tentative economic reforms in 1978, it was a poor, predominantly agrarian economy. Almost 70 percent of the labor force worked in agriculture, and per capita GDP at purchasing power parity was less than 3 percent of the US level. This means that agriculture was the natural place to start reforms, and also that the potential for catching up was extremely large, given the distance to the advanced countries. China had

succeeded in detonating a nuclear bomb in 1964 (partially with the help of the Soviet Union), so obviously in some areas, the country had moved beyond a simple agrarian society. Nevertheless, overall Chinese society and economy were still dominated by agriculture, and the vast majority of people lived in the countryside.

In the late 1980s the Soviet Union was a heavily industrialized and largely urban society. Less than 20 percent of the labor force worked in agriculture (Central Intelligence Agency 1992). This meant that opportunities for increasing efficiency by shifting labor from agriculture to industries and services was much more limited than in China at the outset of the transition.

After the tumultuous and disastrous Cultural Revolution, the Chinese society and economy were in many ways in disarray. Hence there was a clear need for economic reforms that could help to improve the welfare of its citizens and also provide the government with more resources to carry out its duties. It was clear that the command economy as it had been practiced before had not been successful in its stated aims. Naughton (2018) provides a useful discussion on the reasons for going forward with reforms and also why reforms related to agriculture were the first ones to be implemented.

Lau, Qian, and Roland (2000) provide a theoretical framework to assess the initial agricultural reforms and to discuss their real-world effects. In simple terms, Chinese farmers were required to sell only a certain, ex ante announced portion of their output to the state at a fixed, low price, while being allowed to sell the rest at market prices to the market. This means that the producers' marginal revenue would be equal to the market price. This move towards a more market-oriented way of organizing production proved to be both very popular and very successful. The initiative soon spread to industrial goods as well. Lau, Qian, and Roland (2000) report that in 1978, at the beginning of the reforms, some 6 percent of output was sold at market prices, but by 1985 this share had already risen to 63 percent. In industrial production, the shift towards more market-priced transactions was not as marked, but it can certainly be observed as well.

China was able to embark on a gradual reform path, as it maintained control over various parts of the state apparatus. In addition, the central government was always ready to allow some regional initiative, as long as these were intended to increase production and/or efficiency. Regional leaders' career prospects were also tied to the economic success of their regions, which gave them an incentive to prioritize efficiency enhancing reforms (Xu, 2011).¹ Yet, China's initial reforms during the 1980s left many areas untouched, including much of the labor market (internal migration is still regulated via hukou system) and foreign trade.

In contrast, Russia was much more industrialized and urbanized when its economic and political reforms

started. While some tentative reforms were tried during the latter half of the 1980s, there was not a corresponding potential to increase efficiency from liberalizing some parts of agriculture and services, such as retail trade. Most of the economic activity simply took place elsewhere.

More importantly, Russia's economic reforms were undertaken during a period of political instability, which at times was *extreme*. Dissolution of the Soviet Union did not end the period of instability, and between 1992 and 1995 there were serious doubts concerning even the territorial integrity of the Russian Federation. Gaidar (2007) provides an insider's account of how various reform plans in 1991 and 1992 were blocked by vested interests, either at the line ministries and large state-owned enterprises, or by regional politicians who were trying to improve their bargaining power vis-à-vis the federal level. Reformists' position was made much more difficult by the very weak public finances and decline in foreign currency holdings: a drop in the price of oil had led to much weaker public revenue, and impending dissolution of the Soviet Union disrupted intricate production networks even further.

In this situation, the government of the newly independent Russian Federation had only a very limited set of options. For example, it chose to liberalize consumer prices in the beginning of 1992. This led to an immediate and very large increase in Russian price levels, caused by the very large monetary overhang from Soviet times (as prices had not been allowed to adjust to higher monetary incomes, rationing – both formal and informal – became a way to allocate goods). The Russian government also moved relatively rapidly forward in some aspects of privatization. In most instances, households were given the apartments they lived in, which gave people at least some form of property. Obviously, there was a large element of luck in all of this, and people were treated very differently depending on where they happened to live. Another Russian privatization element was the use of vouchers. Citizens were given vouchers that could be used to purchase shares in privatized companies. Even though these vouchers were often bought up by those with access to finance and managers of the affected companies, this approach ensured a relatively quick privatization, especially of small and medium-sized state-owned companies.

In China, privatization of the state-owned companies proceeded at a much more cautious and slower pace, if at all. Initially China only allowed private (or semi-private) companies to emerge, and most state-owned or state-controlled companies were not subjected to genuine market competition until the early 1990s. In 1993, local authorities were given much more freedom to restructure state-owned companies in their regions. These measures quickly caused the number of employees in the state-owned companies to rapidly decline, as companies were sold, merged, or liquidated. However, there was never a goal of privatizing some of

¹ Obviously, this has also increased incentives for falsifying local economic statistics.

the most important and largest companies in strategic sectors such as energy and telecommunications.

FURTHER REFORMS

The approach towards the financial sector was very different in Russia and China. As a part of the initial liberalization drive of the early 1990s, Russia allowed a very large number of private banks to be established. At the same time, state-owned Sberbank remained (and remains) the dominant player, especially in the retail sector. Liberal policies led to an explosion in the number of banks (reaching even over 2,000 in 1995), but also in the number of bank failures. Banking supervisors struggled to keep up with the proliferation of new banks and banking business. The number of banks started to really decline with the financial crisis of 1998, and in recent years this trend has continued. At the same time, the share of state-owned banks has increased, and they now control more than two thirds of the retail market. Concurrently with the liberalization of banking operations, many capital flows were liberalized as well. This was partly an attempt to attract foreign funding (whether in the form of foreign direct investment or portfolio flows), which was especially important in financing the public sector deficit in the early and mid-1990s.

China chose a very different approach to financial sector liberalization (see for example Fungáčová and Korhonen 2011). While smaller private banks were allowed to operate locally and regionally, the largest banks remained majority state-owned (even if they also attracted foreign strategic investors). Also, the state maintained control over lending and deposit rates. As capital account restrictions limited Chinese access to foreign assets and markets, China was – and is – able to maintain a system where high domestic savings were mobilized by domestic banks to finance investment activities of both private and public sectors, often without much attention paid to the profitability of various projects. Over time, and especially after the global financial crisis, this has led to a situation where efficiency of investments is already quite low (see e.g. Dieppe et al. 2018). Going forward this will limit China's growth potential, unless financial intermediation starts to operate on a more commercial basis.

One reform area where China clearly moved with more determination was foreign trade. China joined the World Trade Organization in 2001. While there were several transition periods for many goods,

this event clearly increased China's links to and integration with the rest of the global economy. Many foreign companies had taken advantage of China's low labor costs already before the WTO membership, but especially after the accession China truly became the "factory of the world," or at least "assembly plant of the world." Lower tariffs and lower transportation costs led to much more complex production chains where a single component could cross national borders several times before the final product was shipped to consumers. While domestic value-added of a single good assembled in China could have been relatively low, manufacturing activity provided employment and also opportunities for learning and adaptation. (For a survey of global production networks and China's processing trade, see Ma et al. 2009.) Liberalization of foreign trade also increased domestic competition, which led to higher productivity growth.

In Russia, the issue of WTO membership was never as pertinent. As most of Russia's exports were – and are – raw materials, their market access is simpler than that of manufactured goods. Moreover, there were very few domestic stakeholders speaking for trade liberalization, as more competition would have been disadvantageous for many well-connected businesses. In the end Russia joined the WTO in 2012, after almost twenty years of negotiations.

OUTCOMES OF THE REFORMS

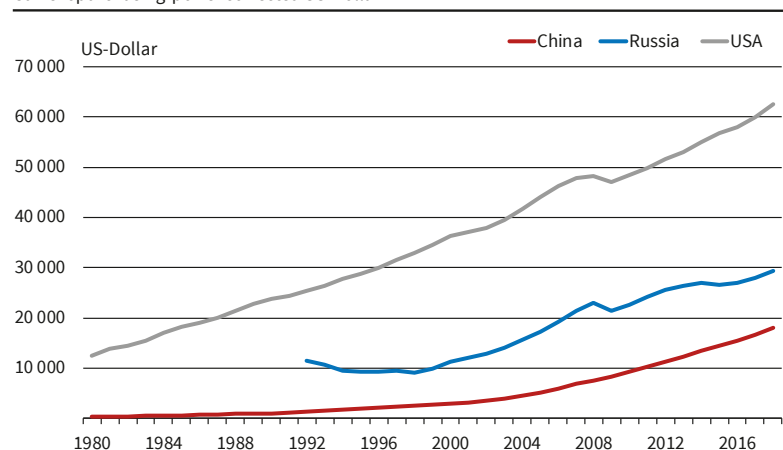
How have the different reform policies served the populations of both China and Russia? Clearly, the average Chinese person is now much more affluent than at the outset of the reforms in 1978, (Figure 2). Also, several hundreds of millions of Chinese have been lifted out of extreme poverty. In this sense, the Chinese transition can be viewed as a resounding success.

At the same time, the transitional recession in Russia was very deep, and average welfare levels declined

Figure 2

GDP per Capita

Current purchasing-power corrected US-Dollar



Source: IMF World Economic Outlook Database.

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for much of the 1990s. Nevertheless, after the financial crisis of 1998 Russia's GDP started to increase, and this trend was further strengthened by rising oil prices as well as by the global economic boom in the first half of the 2000s. This was also the period when Russia's economic structure came to resemble most other countries at its income level.

At the same time as Russia's economic system started to resemble that of many other middle-income countries, its political system also became much more open, and civil liberties were broadened. This is in stark contrast with China's

approach to political liberties. In Russia, citizens still enjoy unfettered access to international media, and also the local media is much more likely to pose uncomfortable questions to those in power. It should also be noted that internal migration is clearly easier in Russia than in China. So, in this aspect Russia and China have truly diverged. In the long run, this may have a larger effect also on economic outcomes.

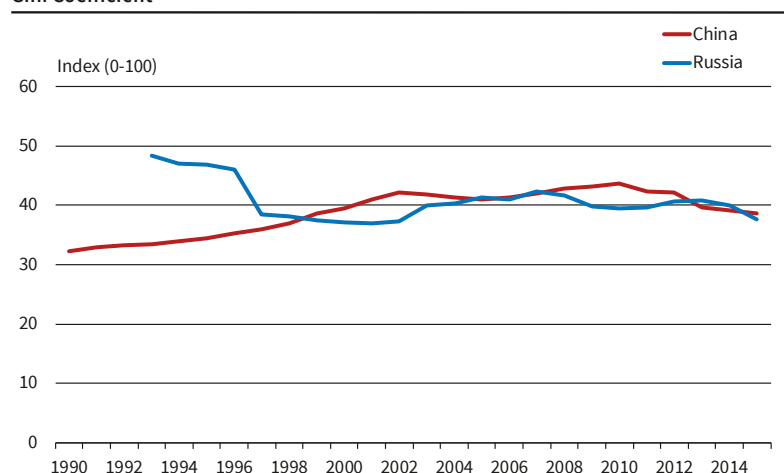
China proved to be remarkably resilient to the effects of the global financial crisis of 2008 and 2009, while Russia's GDP declined markedly with the price of oil. After the initial recovery in 2011 and 2012 Russia's growth has been quite lackluster. However, China has propped up its domestic demand by ever-higher levels of debt, which has clearly increased risks in the economy.

While it is true that in Russia, at least the vast majority of population now enjoys a higher level of material welfare than during the final years of the Soviet Union, it should be noted that China has been able to catch up with Russian income levels during the past three decades. In the mid-1990s, after Russia's transformational recession had bottomed out, China's per capita GDP (at purchasing power parity) was slightly more than 20 percent of Russian levels. In 2018, it had reached more than 60 percent. Also, Russia's catching up with e.g. the US income level seems to have stalled in recent years, while China continues to converge. It remains to be seen whether China's convergence also stalls when it reaches somewhat higher income levels.

Another facet of the transition experience has been a clear increase in income inequality in both countries. In this regard both countries show a clear increase in the Gini coefficient following the start of the reforms. Especially in Russia the increase was very drastic in the early 1990s (Figure 3), but in China income inequality most probably trended upwards all through the 1980s and 1990s. After the global financial crisis, the measured income inequality seems to have declined some-

Figure 3

Gini Coefficient



Source: World Bank.

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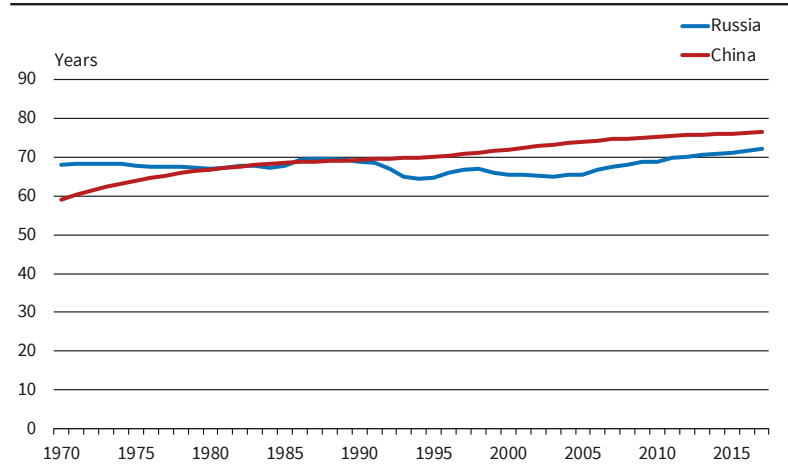
what, but both countries remain more unequal than most European OECD countries, including those that were centrally planned until the early 1990s. In both countries, income and wealth inequality also have a strong regional element. In Russia, especially the largest cities and regions with significant raw material production generally have the highest income levels. In China, southern and western provinces were generally the first ones to industrialize and integrate with the global economy, which has helped their inhabitants to achieve higher income levels. Meanwhile many provinces in the north and south have been left behind. The problem is aggravated by the fact that internal movement is still limited by the hukou system, i.e., workers are not free to move permanently to areas with the highest wages. In terms of income inequality, the two countries' different transition paths have produced quite similar outcomes.

Another facet in assessing the outcomes of the two countries' transition paths is the population's health. While there are obviously several potential indicators for this, life expectancy is often used as a summary measure for general health outcomes. In this sense, the early 1990s in Russia were a clear disaster (see Figure 4). Life expectancy declined by approximately four years in less than a decade. This was caused both by a decline in health expenditures and increase in, for example, alcohol consumption. The drop was especially steep for males. Life expectancy started to increase sustainably only in the mid-2000s, even though the economy had bottomed out already several years before. This warns us against simplistic and mechanical conclusions regarding the effects of economic conditions on health outcomes. For example, decisions to limit the availability of alcohol have certainly played a role in increasing life expectancy in Russia.

In China, the evolution of life expectancy has been very different. There has been a steady increase in life expectancy at birth throughout the past four decades,

Figure 4

Life Expectancy at Birth



Source: World Bank.

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and in 2017 it was already over 76 years. In this sense, the Chinese model of transition has been much more successful than the Russian model. At the same time, it should be noted that many countries in Central Europe, such as Poland, were able to enact relatively radical economic reforms without a similar drop in life expectancy as in Russia.

In the end, transition paths in Russia and China were chosen under several sets of constraints. Furthermore, political constraints continue to exert influence on economic policies also today. It is clear that Russia did not have many options in 1991 as the Soviet Union and the whole state apparatus were imploding. Also, China's inability to meaningfully restructure and reform its remaining and large state-owned enterprise sector is due to political economy considerations. The Chinese Communist Party is unwilling to cede control of the strategic sectors of the economy, as they are deemed essential for the ultimate control of the society. In Russia the dominance of energy sector continues, even though the government pays lip service to the idea of diversification of the economy. Diversification away from extractive industries has proven to be difficult in many other countries as well, as so many vested interests benefit from the status quo. It remains to be seen whether sustainable economic convergence with high-income countries in either of the two countries is possible with the current set of policies.

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Joachim Ragnitz
**Thirty Years after
 the Berlin Wall Came Down:
 Economic Transition
 Completed, but Structural
 Deficit Remains**



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Thirty years ago, in November 1989, the Berlin Wall was opened and the political experiment of a socialist state “on German soil” ended quite abruptly. The political system of the German Democratic Republic (GDR) collapsed, about 40 years after its founding; East Germany “came in from the cold.”¹ The breakdown was a nearly complete one: only a few months later, in July 1990, the economic system of West Germany was transferred to the still existing GDR, and political unity was restored on October 3 with the accession of the newly founded eastern German states to the Federal Republic of Germany. In this respect, German unity was from the very beginning not an equal partnership between two independent states, but the subordination of the East to the West, which had been considered the place of longing for most East Germans since the division of Germany after the Second World War. Nevertheless, collective memory talks of a “peaceful revolution,” which attributes the demonstrations of GDR citizens mainly to the desire for individual freedom: besides the first demonstrations in Leipzig and elsewhere that were carried out by a small minority of civil rights activists, the motivation for the ongoing mass protests in late autumn 1989, the electoral success of the unity supporters in the parliamentary elections of March 1990, and, finally, the rapid accession of the GDR to the Federal Republic of Germany was a primarily economic one – namely, participation in the West German level of prosperity. It was in reality a shock therapy, as it was widely accepted that a stepwise approach would be the riskier one on the road to re-unification. The unavoidable consequences – namely, the far-reaching collapse of the East German economy – were at least taken into account, presumably: they were widely accepted because most people expected a renewal of the economy in a short period of time, the so-called “flourishing landscapes” chancellor Helmut Kohl promised. So, reunification by accession happened in accordance with the wishes of the majority of the East German population.

Due to the form of the GDR’s accession to the Federal Republic of Germany (FRG), institutionally, with unification, apart from a few temporary exceptions, the

legal framework that had developed in West Germany during the long years of division was introduced in eastern Germany “in a jiffy.” Institutions – which does not primarily mean the organizational or administrative structures of a country, but rather the applicable laws and their expression in administrative provisions – represent the framework within which economic action must fit. It was certainly not clear for most people in East Germany (neither for those in West Germany) what this meant in everyday life: Germany is characterized by a dense and sometimes complicated regulatory system that covers almost all areas of life and society. The reason for this is probably a specifically German desire for order, but also the fact that the Federal Government, the states, and the municipalities, on the one hand, but also different political majorities, on the other, have always wanted to realize their own ideas for shaping economic and social framework conditions has led to a bulk of regulations over time. The existing legal framework is therefore almost all-encompassing, though not always without contradictions (which repeatedly give rise to legal disputes), and it is characterized by high complexity. Even if, in principle, a wide set of regulations can increase legal certainty, it is at the same time hardly possible for an individual to know all relevant regulations even approximately. This was all the more true for the citizens of East Germany who as a result of German reunification were suddenly exposed to a legal framework that they did not know at all. At least in the beginning, this led to increased uncertainty among people in eastern Germany. Not only did they have to deal with the fact that some Westerners came to the East trying to take advantage of the inexperience of East Germans (meaning not just people but enterprises and public administrations as well), this uncertainty also induced a higher risk aversion in the population and proved to be a burden when reconstructing the economic and political system.

Making the situation worse still, some of the new institutional regulations created to promote the process of reconstruction in eastern Germany did not always satisfy the requirements of a transformation economy, but rather corresponded to West German legal understanding. This was especially true for the concept that property expropriated under the GDR should be returned to its former owners, leading to severe obstacles to investment. It took some time until this deficiency was recognized, and an agreement reached on financial compensation instead. Other specific regulations, for example the de facto occupational ban for former collaborators of the GDR secret service (“Stasi”), might also have impeded the reconstruction of the East German economy at least in the beginning. This again shows that East and West were not equal partners, as West German perceptions dominated not only the public debate but also the policy actions that were taken, even in the eastern German Länder themselves; in most states, government members and higher administrative staff were “imported” from

¹ Akerlof, G., H. Hesseinius, A. Rose and J. Yellen (1991) “East Germany In from the Cold: The Economic Aftermath of Currency Union”, *Brookings Papers on Economic Activity* 23(1), 1–105.

the West, shaping policies and structures in a Western style without knowing much about the specific circumstances of an economy in transition.

So, the transfer of West German institutional regulations must be regarded as a disadvantage for the rebuilding of eastern Germany (“Aufbau Ost”) that must not be underestimated. Positively, the transfer of West German law to eastern Germany prevented the emergence of lawless areas, as was the case in some transition countries in Central and Eastern Europe in the early 1990s, which in part contributed to undesirable developments there. Negatively, however, in view of the lack of familiarity of citizens and companies with the new institutional conditions and the necessity of having to find “unconventional” solutions to new problems, the adoption of the West German legal system in all its complexity was a burden on economic development in the East. This may have contributed to the fact that the economic upswing did not progress as quickly as the people in East Germany had expected and as politicians had pledged. From today’s perspective, it would certainly have made sense to find appropriate (meaning at least less comprehensive) regulations for the eastern German Länder, at least for the transformation phase. The fact that this did not happen probably represents the most serious political shortcoming during the process of unification,² which ultimately contributed to the fact that eastern Germany is still lagging behind the western half of the country in important indicators and that transfer payments were necessary to a far greater extent than originally expected to compensate for the effects of unfavorable initial conditions.

The main reason that the difficulties of the transformation process in East Germany were underestimated was probably the widespread misconception that the GDR was one of the most advanced industrial nations in the world; this impression ultimately turned out to be the result of massive falsifications of official statistics on the part of the GDR. However, it also included the illusion that the introduction of market-based incentive systems, the free movement of capital, and the granting of freedom of trade would trigger a growth process similar to the West German “economic miracle” in the 1950s.³ Under these assumptions, the adoption of the West German regulatory framework appeared to be not only viable, but also helpful on the way to rapid convergence. One cannot blame those acting at that time for this, but one can blame them for the fact that they hesitated for a long time to allow deviating regulations of any noticeable magnitude at all. When this finally happened, it was often too late to stop the incipient deindustrialization of the eastern German states and to accelerate the rebuilding of industrial structures.

In fact, after the introduction of the market economy, the East German economy collapsed to a large extent because the existing enterprises were hopelessly backward due to suppressed investment during GDR times and the impossibility of gaining access to Western technology.⁴ In addition, they suffered from massive overstaffing, as the GDR economy had to apply labor-intensive production technologies in order to compensate for the lack of capital and technology. While the introduction of the D-Mark in East Germany at an exchange rate of 1 Mark of the GDR to 1 DM meant an appreciation of the GDR currency in foreign trade of about 400 percent, the companies lost their markets in West Germany and abroad, aggravated by the simultaneous collapse of the other socialist states in Central and Eastern Europe, which had until then been the main recipients of East German export products. The massive collapse of industrial production in East Germany even in the second half of 1990 was mainly caused by these factors – and not, as is sometimes claimed today, by the bad intentions of West German politicians and enterprises who wanted to prevent the emergence of competition in their own country. In short: the economy of the GDR was not at all viable under the changed conditions of free markets, and any attempt to keep it alive with state aid would have led to immeasurably high long-term consequential costs.

Only in retrospect does it become clear how all-embracing the collapse of the East German economy was and how quickly it took place. In 1988, the level of industrialization in the GDR was about 35.5 percent (measured in terms of employed persons), far more so than in West Germany at the same time (28.5 percent). Due to the GDR’s desire for self-sufficiency, it maintained strong representation even for those sectors that in western industrialized countries had already shrunk sharply under the globalization pressures of the 1970s and 1980s and had no chance of survival in a high-wage country such as East Germany was soon to become. In just a short period of time until 1991, the number of people employed in the manufacturing sector fell by about 50 percent because the existing companies, organized in completely oversized structures, were in no way able to cope with competitive pressures after the opening of their markets. Even though the non-trading sectors of the GDR economy were less affected by the reduction in production, they also had to make significant cuts in personnel. While full employment prevailed in the GDR, underemployment rose to around two million people (official unemployment and short-time work) even before political unification in October 1990. It is important to emphasize this because it makes it clear that it was not the circumstances of the further transformation process that drove the East German economy down, but rather

² For a more detailed analysis see: Ragnitz, J. (2009), “East Germany today: Successes and failures” *CESifo DICE Report* 7 (4), 53–58.

³ Among others: Willgerodt, H. (1990), “Vorteile der wirtschaftlichen Einheit Deutschlands [Advantages of economic unity in Germany]”, Institut für Wirtschaftspolitik an der Universität zu Köln, Cologne, Germany.

⁴ Schürer, G., A. Schalck, E. Höfner, and A. Donda (1989), “Analyse der ökonomischen Lage der DDR mit Schlussfolgerungen, Vorlage für das Politbüro des Zentralkomitees der SED, 30. Oktober 1989”, mimeo, Berlin.

the suppressed structural change and the foregoing failure to modernize enterprises during GDR times.

While the collapse was rapid (even faster than in other Central and Eastern European countries, which were not equally exposed to the competitive pressure of a superior economy), the establishment of new structures required more time. Nevertheless, a fast growth process began in 1991, albeit starting from a low level of economic activity. This was driven on the one hand by the founding of new companies by the local population and on the other by external investors from western Germany and abroad who set up new production facilities in the eastern German states. In the initial phase, the latter was less a result of new developments (which were hindered by the lack of suitable land, for example) than of the takeover of existing production plants, which had previously been state-owned and now had to be transferred to private ownership in accordance with the principles of a market economy. This task was transferred to a specially founded institution, the “Treuhandanstalt,” which saw its major task as being the rapid privatization of existing GDR companies. Only in cases where this was not feasible were plants closed; the restructuring of existing companies with fundamentally good prospects for the future or a structurally determining importance receded into the background. The task of the Treuhandanstalt was almost immeasurable: the existing 432 combines were split into privatizable units, and over time around 12,000 companies emerged, for which private investors had to be found within a very short period of time. Contrary to what was initially assumed, the Treuhandanstalt’s business was therefore not the “sale of national assets” but the “purchase of investors” – one reason why the Treuhandanstalt closed its operating business after only four years with a loss of around EUR 120 billion. Alternative proposals, such as the issue of tradable share certificates to the East German population, had no chance of realization in view of this order from the outset; they probably would not have led to private investors for the East German companies to the required extent. In this respect, the Treuhandanstalt’s activities may have been criticized, but its task of privatizing the East German economy (despite the frictions that arose in detail) has been properly fulfilled: by the end of 1994, 7,850 enterprises and parts of enterprises had been handed over to new private owners; only in 3,700 cases did privatization fail, so that the liquidation of the enterprises concerned had to be initiated. The few remaining state-owned companies – obviously the cases that were most difficult to sell – were then privatized, mostly in subsequent years, with further financial concessions.

In retrospect, it seems wise to transfer the privatization process to an institution outside the political sphere, because the Treuhandanstalt took on the role of “scapegoat,” leaving politics unaffected. With the closure of the Treuhandanstalt in 1994, for the public the bogeyman disappeared from the scene. However,

the mental harm to the population caused by the Treuhandanstalt’s activities was probably underestimated. In any case, there is no other explanation for the fact that today, 25 years after its dissolution, there is an increasing number of political voices calling for a review of this chapter of transformation history and, in particular, claiming that the liquidation of supposedly competitive companies was the main cause of the continuing backwardness of the eastern German economy vis-à-vis the West. It is therefore all the more important to point out that it was not the Treuhandanstalt policy, but rather failures in GDR times that were the real reason that these enterprises were unable to survive.

Even though the transfer of the East German enterprises into private ownership was quickly achieved, this does not mean that there was no need to carry out further, often painful restructuring measures in the enterprises concerned. Overstaffing was still an issue and, in addition, the purchasers of existing companies had to redesign their production technology and market orientation, meaning personnel had to be reduced for a second time. Employment particularly in industry therefore continued to shrink; as a result, in the mid-1990s, only a quarter of the former industrial workforce remained. On the other hand, the construction industry, which benefited in particular from the need to catch up and renovate residential, commercial, and infrastructure buildings, and the services sector both expanded. Apart from the transformation-induced and ultimately only temporary upswing in the construction industry, the eastern German economy quickly pursued the structural change that had shaped West Germany over the preceding decades, but had been suppressed in the GDR due to its lack of integration into the global division of labor. As a result, at least on an aggregated level, an economic structure emerged that was largely similar to that in the West – even if there are some considerable differences in detail. Thus, regionally oriented, often less technology-intensive branches of the economy continue to dominate, and the state sector is still of greater importance in eastern Germany than it is in the western half of the country.

The dismissal of personnel no longer needed, but also the modernization of the capital stock led to rapid increases in productivity in the first years after the introduction of the market economy. Gross domestic product per person employed, which in the GDR had been only about one-third of the level in West Germany, rose to just under 60 percent of the western level by the mid-1990s. In contrast, the underemployment rate, which includes registered unemployed persons as well as persons in job-creation measures or in state-subsidized advanced training courses, continued to rise, peaking in the early 2000s at almost a quarter of the total labor force, in some regions even significantly more. However, it must also be borne in mind that the participation rate of women in eastern Germany in particular was historically exceptional and therefore required significantly more jobs per inhabitant than in

western Germany – which is hardly to be expected, however, with the same institutional framework and the same wages in the future.

In addition to the privatization activities of the Treuhandanstalt, the transformation of the East German economy into a market economy was characterized by the instantaneous opening of the East German market to the outside world. With unification, the eastern German states not only became part of the West German economic area, but also part of the European internal market. Initially, this meant above all increased competition from western German and foreign companies on the eastern German regional markets, which intensified the collapse of the existing GDR companies. This was accelerated by the fact that eastern German consumers initially preferred western German products to eastern German goods. In the medium term, however, the free movement of goods also enabled eastern German companies to gain access to western markets. Even though it took some time for this advantage to be exploited – not least because of the policy of the large trading groups, which preferred proven products to eastern German brands unknown to consumers – this should not be underestimated. The disadvantage of the complete integration of eastern Germany into the common economic area, however, was that labor migration was now unhindered: due to the higher wages in the West, but also due to the unfavorable labor market situation in the eastern German states, there was massive migration from eastern to western Germany. In the years 1989–1991 alone, the migration loss amounted to 810,000 persons. Even if emigration has clearly slowed down since then, eastern Germany has lost about 1.1 million persons to the West to date. Even though this relieved the tense labor market in eastern Germany, it is likely to have had a negative impact on economic development, as especially younger, well-qualified workers have moved to western Germany. Together with the massive drop in the birth rate after reunification – the birth rate fell from 1.57 in 1989 to only 0.7 children per woman within just a few years and increased to around 1.5 children per woman only in the further course of time – this contributed to the fact that eastern Germany had to accept a massive population shrinkage, which is likely to shape further economic development in the medium term due to the resulting shortage of labor.

Finally, one of the institutional peculiarities of the eastern reconstruction was the massive support granted by the federal government, but also by the EU. After it had initially been assumed that a rapid economic upturn would start simply as a result of the introduction of market-based incentive systems, it was soon recognized – in the spring of 1991 – that more specific interventions were needed to support economic development. In addition to the rapid expansion of infrastructures, the focus was on investment incentives for companies in the form of special tax depreciation allowances, large-scale investment subsidies as well as

low-interest loans, especially for newly founded firms. In favorable cases these reached a considerable level – of up to 50 percent of the investment sum; often this was what made investment in the eastern German Länder profitable at all. The positive effect on investment activity should not be underestimated; however, this also encouraged investments that were either profitable on their own or that were realized only because they were strongly subsidized. The first case therefore concerns deadweight effects, the second case the promotion of bad investments. However, since it was not possible for politicians to make appropriate selections, this lack of precision had to be accepted at least for some time. It was only gradually that attempts were made to make investment promotion more efficient by limiting the set of beneficiaries, lowering the subsidy rates, and finally thinning out the entire range of subsidy instruments. All in all, however, expenditure on the federal government's funding policy in the 1990s alone is likely to have amounted to almost EUR 100 billion. It cannot be ruled out that subsidies led to habituation effects lowering the effectiveness of funding policies over time.

The rebuilding of the economy was finally supplemented by large-scale programs to provide social support for the transformation process. Although the eastern German unemployed were in principle entitled to unemployment benefits in accordance with the current legal situation, a whole series of measures were also implemented to create jobs (primarily in the clearing of industrial sites, later also in the reconstruction of infrastructures) and to retrain in supposedly more marketable occupations. However, most of these programs were not successful with respect to “building a bridge” to the regular labor market. Rather, many evaluation studies show that participants' labor market opportunities in fact often deteriorated because participation in such programs led to negative stigmatization effects; furthermore, in many cases, individual efforts to find a regular job diminished. It was not until many years later – towards the end of the 1990s – that these measures were curtailed due to a lack of success and were subsequently discontinued completely. In the end, they relieved the labor market temporarily, but were unable to solve the fundamental problem of an immense lack of jobs in the regular labor market. The funds spent on this were then lacking elsewhere, namely in designing more growth-oriented locational conditions in eastern Germany.

All in all, the institutional conditions under which the transformation of the East German economy into a market economy took place were not necessarily favorable. In particular, the excessive exchange rate in the course of monetary, economic, and social union and the transfer of the entire West German legal system to East Germany, which took place with the Unification Treaty, must be viewed critically. The almost complete collapse of GDR economic structures would not have been avoidable under other conditions, since it was pri-

Table 1

Economic Indicators for Eastern Germany

	in % of western Germany		1991=100
	1991	current	current
GDP per capita, in 2018 prices (2018)	38.9	69.2	234.2
GDP per unit of labor, in 2018 prices (2018)	41.0	79.7	226.7
Wages per employee, nominal (2017)	50.7	81.6	258.3
Unit labor costs, nominal (2017)	143.2	101.8	68.8
Disposable income per capita, in 2018 prices (2017)	62.9	85.8	161.5
Gross investment per capita, current prices (2016)	61.6	72.6	179.4
	Absolute figures		1991=100
Employment per capita (2018)	46.4	47.9	88.7b
Unemployment rate (2018)	10.2	7.6	56.9b
Current account balance in % of GDP (2016)	-75.4	-12.9	55.3c
Population (millions) (2018)	14,624.7	12,550.7	85.8

^a Eastern Germany without Berlin, western Germany with Berlin – ^b Change in employment and unemployment in absolute terms, 1991=100 – ^c Change in the current account deficit in absolute terms, 1991=100. Source: AK VGR der Länder, Bundesagentur für Arbeit; author's calculations.

marily caused by the failure to modernize in GDR times. In addition, facts were created during the initial period of transformation that still have an impact today and are partly responsible for the fact that the eastern German economy has not yet reached the level of performance of the western German economy. The “price” for a policy that did not fit the needs of an economy in transition were high transfer payments from western Germany to eastern Germany: to date, these may add up to EUR 2 trillion.⁵

Looking at key economic figures, eastern Germany still lags considerably behind in terms of gross domestic product per capita (69.2 percent of the western German level in 2018) and gross domestic product per person employed (79.7 percent) (see Table 1). There is also still a considerable discrepancy between the derived figures such as wages and incomes to those of the western half of the country. This is mainly due to the structural peculiarities of eastern Germany, which in turn have their actual cause in the path dependencies created in the early 1990s: there are hardly any large enterprises in eastern Germany that show productivity advantages through the exploitation of economies of scale in production or through research and development opportunities. In addition, almost all industrial enterprises in eastern Germany are subsidiaries of western German or foreign corporations and therefore pure production sites (“extended workbenches”) with low value-added intensity and low own competencies. All in all, the eastern German economy has specialized in more regionally oriented, often less technology-intensive sectors that have neither great productivity potential nor great growth potential. Finally, there is the loss of well-qualified population groups due to emigration, which leads to a lack of dynamic, more productive workers in many sectors and regions. And it should not be neglected that the economy in western Germany

has grown strongly over the past 30 years, thus representing a “moving target” for the equalization of living conditions: whereas the economic performance in eastern Germany in 1991 was 30 years behind that of West Germany in 1960, it has now reached the level of the mid-1980s – the time lag in development has thus remained roughly the same despite the temporary rapid growth in eastern Germany. Path dependencies and increasing economies of scale in production are favoring development in western Germany: another reason that it is difficult for the eastern German economy to catch up with the West.

In addition, clusters and networks, which are generally regarded as a basic condition for technologically driven economic development, are weaker in eastern Germany than in western Germany. On the one hand, the fact that existing network structures were frequently destroyed as a result of the Treuhandanstalt's activities has had a negative effect here, since the privatization of state-owned enterprises made their unbundling necessary. In addition, both privatized and newly founded companies were often unstable and therefore not necessarily regarded as suitable cooperation partners – especially as many of these companies did not survive the structural upheavals of the 1990s and withdrew from the market again. Structures that have grown over many years, as they characterize western German regions, therefore do not exist in eastern Germany – and attempts by politicians to establish them through political intervention have failed in most cases. It can be shown that this might lead to subsequent divergence instead of convergence between regions.⁶

Empirical estimates indicate that it will probably not be possible to reduce the economic backwardness of the eastern German states in the coming years either, because demographic trends, the mirror of the birth failure in the 1990s, and strong migration until 2005 will lead to a serious shortage of labor in all sectors in the near future. Many companies will not be able to fill jobs that become vacant as a result of age, and employment-intensive growth is ruled out anyway. If it is not possible to make do with fewer workers, i.e., to substitute capital for labor through rationalization and digitalization, then production will also grow more slowly, or it might even decline in some remote areas. Among the five eastern German states, only Saxony can be expected to catch up noticeably with the western German level, while Mecklenburg-Western Pomerania and

⁵ Lehmann, R. and J. Ragnitz, “Die Transferleistungen zugunsten der ostdeutschen Bundesländer – Status quo und Ausblick”, *ifo Schnelldienst* 65 (3), 25–30.

⁶ Uhlig, H. (2008), “The Slow Decline of East Germany”, *Journal of Comparative Economics*, 36 (4), 517–541.

Saxony-Anhalt are indeed likely to fall back relative to western Germany. If one continues to see the goal as an “equalization of living conditions,” this will not be achieved across the board even by 2035. However, this does not mean that the “rebuilding of the East” has failed completely, but merely that the original goals were too ambitious. In western Germany, too, there are considerable differences in economic strength between different federal states and regions and, derived from this, in the regional level of prosperity, despite a largely similar institutional framework. It would be astonishing if eastern Germany, characterized by a particular lack of agglomeration centers and 40 years of neglect of economic efficiency aspects, were to achieve something in only 30 years that Schleswig-Holstein or Rhineland-Palatinate have not achieved in more than 70 years.

Thomas P. Triebs and Justin Tumlinson Learning to Forecast Business Conditions – Evidence from German Reunification¹



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Economic decisions involving firm production or investment hinge, implicitly or explicitly, on the assumption that firms can predict future business conditions, e.g., they know or can predict factor prices, production technology, demand, and competitor behavior in the next period – for firm decisions today depend critically on (estimates of) these variables tomorrow. But neither managers nor firms are likely to be born with the ability to accurately forecast future business conditions. Our research asks, do they learn to forecast? How long does this learning take? How do market dynamics, and especially various types of uncertainty, affect forecast quality and learning?

At first blush, one might naively assume that simply measuring a positive correlation between firm age and forecast quality would suffice to establish that firms learn to forecast over time. And indeed, we show that as firms age, they forecast future business conditions better. Nevertheless, firm age correlates with many confounding and often unobservable factors besides experience that could affect forecast quality – young firms are smaller, their employees tend to be younger, their markets tend to be newer, and so on. To establish a causal link between experience and learning, an ideal experiment would randomly place a cross-section of firms into a new market environment alongside otherwise similar counterparts that are very experienced in the market and compare the evolution of their forecasts of subsequently shared market conditions. German reunification was such an event.²

Our analysis builds on the firm-level data of the widely cited ifo Business Climate Survey (Geschäftsklimaindex), which provides business condition forecasts and realizations for German firms. Every month since 1949, the survey has collected the near-term expectations and assessment of business conditions for numerous German manufacturing firms. This data allows us to construct firm-level forecast errors – the difference between expectations and realizations – and to analyze firms' learning of business condition forecasting under the quasi-experiment of German reunification. Relatively homogeneous Germany was abruptly divided in 1949, and for four decades firms in East Germany operated under a master-planned, com-

munist economy. For these firms of all sizes, maturities, and across the spectrum of industries, market states were dictated, not predicted. Then suddenly, and quite unexpectedly, with German reunification in 1990, these firms were thrust into the free market economy of the West. Uniquely among transition countries, East Germany immediately received developed country institutions (e.g., legal system, property rights, social welfare) as well as full global market access. Nevertheless, Eastern managers recognized a deficiency in their understanding of market economies. In 1991, West German firms hosted East German managers as interns. About 70 percent of these interns self-reported having a poor knowledge of market economics; more than 85 percent of their Western hosts shared that assessment.

However, there is a worry that reunification left Eastern firms not only with different understandings of the market, but altogether different market conditions than Western ones. Here we provide evidence that changes in market states did not differ fundamentally between East and West. Differences in forecast errors stem from differences in expectations, not realizations. First, previous research suggests that after reunification, Eastern firms did not sell into different markets, but rather Eastern firms swiftly reoriented their exports from planned to market economies. After 1990 most transition countries underwent severe recessions and demand for East German firms' products collapsed. Furthermore, these countries suddenly had to pay for their imports from former East Germany in deutschmarks, which they could not afford. Whereas in 1991 sales to former West Germany roughly doubled, sales to Eastern Europe and the former USSR roughly halved. In any case, Eastern firms mostly sold domestically. Around reunification just under 60 percent of Eastern firms' sales were domestic. Eastern firms in 1987 made only 7 percent of their revenue from exports to Eastern Europe. By 1992 the number had fallen to 1.6 percent. Second, our data also indicates that the market states did not differ substantially between the two regions. Figure 1 plots the time series for the correlation coefficients between Eastern and Western aggregate realizations and expectations respectively. The correlation between Eastern and Western aggregate realizations rises rapidly above 0.8 almost immediately after reunification and increases only slightly thereafter. Correlations between aggregate expectations reach similar strength only after 1997. This suggests that markets between regions homogenized quickly, and the convergence in forecast errors does not come from alignment of actual market conditions but rather expectations, which took longer to converge.

How long did it take Eastern firms to forecast market conditions as well as their Western peers? Figure 2 plots forecast error magnitudes (no direction) by Western firms since 1980 and Eastern ones after reunification and provides evidence for the impact of reunification on Eastern firms and their subsequent learning. Initially, Eastern firms made much larger forecast

¹ This short piece summarizes a working paper with the same title. The paper, which also contains all references, can be accessed at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2229702.

² Germany was reunited on October 3, 1990. An economic and monetary union was already established on July 1st of that year.

errors than those in the West. (Note that there is no unusual spike in Western forecast errors, due to the shock of reunification or any other reason, and that we do not explain movements in the forecast error per se but only differences between East and West.) Over time, forecast errors in the East decreased and converged to Western levels. We see that real-world convergence took a decade, despite the fact that formal institutions converged immediately, and business conditions converged very quickly.

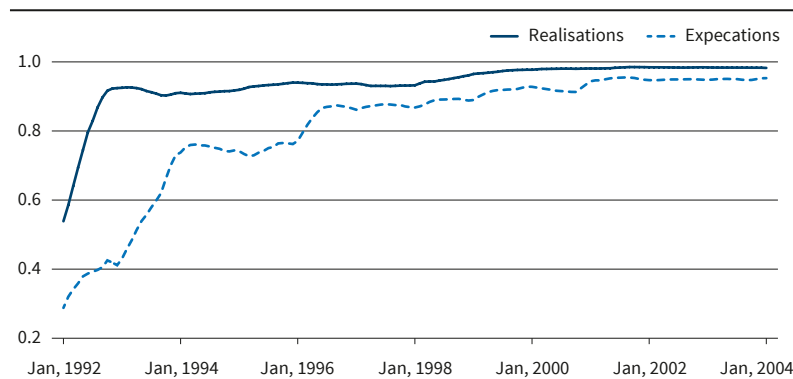
The improvement of Eastern firms' forecasts as evidenced in Figure 2 suggests a learning process and we show that, across firms, the rate of learning depends on market uncertainty. We do not explain the technical details of the learning process over uncertainty here, but one can use the following analogy. Suppose one has to predict the weather after relocating from a valley to the mountains. Weather in the mountains is generally more volatile than in valleys and hence harder to predict without specific information. Weather information, or signals, in remote areas may be less frequent or from more distant meteorological stations than in urban settings, also complicating predictions. Finally, though, the longer one lives in the new location, the better one understands the weather pat-

terns and aggregate information from various sources. Comparing industries, we find evidence that firms learn to forecast business conditions in a new environment consistent with this analogy.

Our study is not without limitations. Although we measure the learning of Eastern firms that lived through reunification, the reasons why firms learn remain somewhat obscure. In particular, given that our natural experiment shocked not just Eastern firms, but the individuals and non-firm institutions, we cannot ultimately disentangle organizational learning from individual learning. Although we have ruled out survival of the fittest at the firm level as a primary driver of the observed improvements, we cannot rule out that better forecasting managers (many Eastern firms replaced top management with Westerners) displace worse ones within firms. Our results stress that firms need to learn to operate in new settings. The lessons of this switch to capitalism, though more drastic than most changes to business environments, may help set realistic expectations for how quickly firms adjust to sweeping market changes like new trade rules, e.g., the departure of Britain from the EU. New formal institutions might be built quickly, but firms need longer to learn how to operate in the new environment.

Figure 1

Correlations between East and West

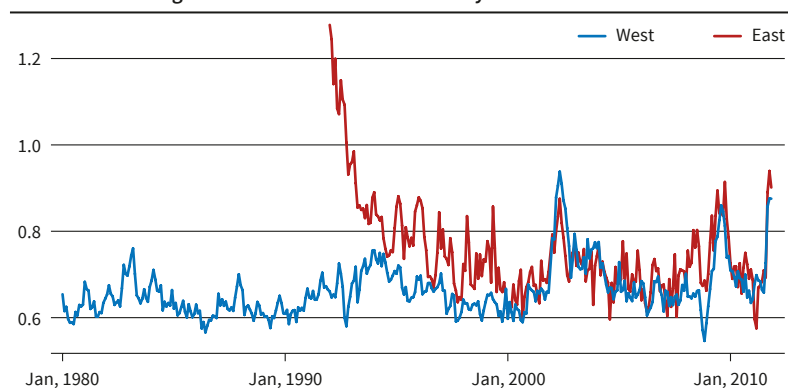


Source: Authors' calculations.

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Figure 2

Forecast Error Magnitude in East and West Germany



Source: Authors' calculations.

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Quentin Lippmann and Claudia Senik The Impact of the Socialist Episode on Gender Norms in Germany



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One of the striking features of the Soviet societies – for citizens of the Western world who have known them – was the highly visible implication of women in the labor market. Women were everywhere, in every firm and every occupation, even in sectors which are usually reserved for men, such as the construction sector. They performed physically strenuous tasks, such as clearing the snow from the porch of houses, or mending electric wires in the street, not to mention the hive of female activity one could find in the buildings of government institutions, such as Goskomstat (the Soviet statistical office), where you had to reach the highest floors to meet the ruling men. This unusual feature was the product of the full-time employment norm and policy enacted by socialist governments in view of their ambition to catch up with the capitalist world, and the route they took to this goal, which entailed mobilizing all available resources in the framework of an extensive growth strategy. Female labor market participation was also part of the egalitarian objectives of these regimes, where gender equality was one of the initial claims of the revolutionary leaders (Kranz 2005).

This specificity of the socialist regimes in Eastern Europe is likely to have influenced gender behavior and stereotypes. Expecting to work full-time and during their entire life (and have children), it is likely that Eastern European women invested more in education and in paid work than young Western European women, who were deemed to participate in the labor market in a more intermittent way, if they did at all. It is also likely that eastern women's role within the household was based on different grounds than those of asymmetric single-breadwinner couples. Actually, in the case of the German Democratic Republic (GDR) for instance, women's education, paid work, motherhood, and family responsibilities were all part of a deliberate policy aimed at ensuring the compatibility of these different spheres of life.

How much of this specific pattern has subsisted after the fall of the Berlin Wall and the withering away of socialist institutions? Economists call "culture" the permanence of representations, mentalities, expectations, habits and norms that persist beyond the origins that caused them in the first place. Such cultural habits are transmitted over time, from generation to generation, by families, schools, and other socialization instances.

Assuming that a more gender equal culture has prevailed in socialist countries than what existed in the capitalist world at the same period, it is interesting to assess how much of this culture has persisted to date. In order to answer this question, it is not sufficient to compare the current situation of the socialist bloc to that of the former capitalist bloc. This is because many other national features and events may distinguish different countries, so that it is difficult to attribute a national feature to the past political regime of a country, rather than to any other potential factor. However, there is one particular episode that researchers can study as an almost perfect "natural experiment" to assess the impact and legacy of the socialist regime: the German division (in 1949) and reunification (in 1990).

We will thus focus on this German experience to show how institutions can durably modify culture, and more specifically, gender norms, in four major domains: female labor market participation, within-household relationships, education, and general values. In each of these four aspects of life, gender stereotypes still differ across the former Iron Curtain.

BEFORE THE DIVISION

In order to argue convincingly that the socialist episode has durably modified gender roles, it is necessary to show that there was no specific difference between the Länder of the future GDR versus the Federal Republic of Germany (FRG).

First, it is important to recall that the division of Germany into five (GDR) and 11 (FRG) Länder in 1949 was drawn up by a postwar agreement between the Allies on the basis of the zones occupied by the Soviet Union and Western countries and without any connection to potential pre-existing differences between the two regions.

Next, several studies have shown that before the division, no specific structural differences were noticeable across the regions that would later become the GDR and FRG. For instance, Lippmann et al. (2019) showed that in 1933, the employment structure was similar in the two regions. Naturally, there were some differences. For instance, about 45 percent of East Germans worked in industry compared with 40 percent in the West; the female share of employment was 2.8 percentage points higher in the East, and the birth rate (per thousand) 1.95 points higher in the West (see Table 1 in Lippmann et al. 2019). However, the dissimilarities between the two groups of Länder (East versus West) is statistically similar to what would emerge from any random partition of Germany (excluding Berlin) into two groups of respectively 15 and 5 regions. Beblo and Gorges (2018) have also documented the similarity of eastern and western regions before the German division, based on historical data.

THE DIVERGENCE OF EAST VERSUS WEST GERMANY DURING THE DIVISION

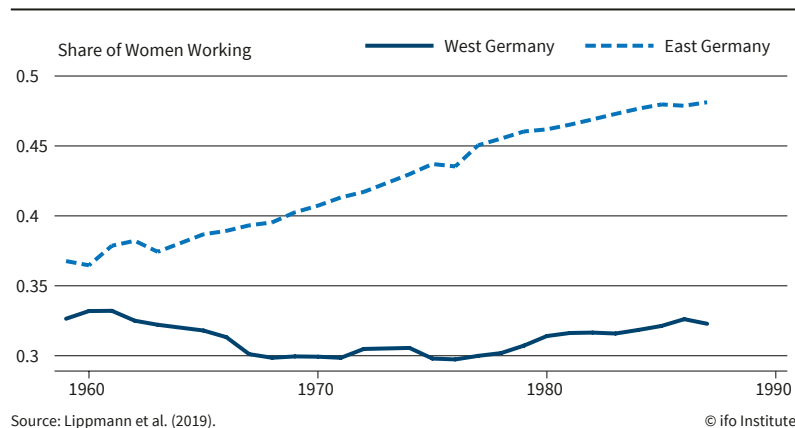
Starting from a similar situation, East and West Germany adopted totally different institutions during the division, which had important consequences in terms of gender roles.

In East Germany, where the constitution ensured full equality between men and women, the socialist party's women's policy was characterized by three objectives: (1) legal equality between men and women, (2) promotion of female work, and (3) special protection of mothers and children (Kranz 2005). The party's policy toward women progressed along three stages. The first phase, from 1946 until the mid-sixties, was shaped by the integration of women into the workforce. Work-family balance programs, kindergarten, and other childcare facilities were put in place after 1949. The Mother and Child Care and Women's Rights Acts, adopted in 1950, aimed at "[establishing] a range of social services in support of full female employment, including a network of public childcare centers, kindergartens, and facilities for free school meals," as well as paid maternity leave. The second phase, from the mid-sixties until 1971, comprised further education, qualified job training, and the introduction of women into male professions. For instance, special classes and university studies were established to enable women to pursue further education while being employed full-time and raising children. The third phase began in 1971: additional policies expanded childcare facilities and extended paid maternity leave to 18 weeks. A final set of reforms improved childcare facilities, extended parental leave to 20 weeks, and allowed fathers as well as grandmothers to take this leave. In summary, these policies were targeted at making participation in the labor force compatible with maternity.

In the meantime, the FRG's policies strengthened the traditional family model. Irregular school schedules and scarce childcare facilities inhibited female employment. The tax system favored single earner families as non-employed spouses and children could obtain public health insurance at no extra cost. Until 1977, the Marriage and Family law stated that: "*The wife is responsible for running the household. She has the right to be employed as far as this is compatible with her marriage and family duties*". Subsequent policies then alternated more or less conservative incentives for female participation in the labor market (see Schaffer 1987; Cooke 2007; Rosenfeld et al. 2004; Bauernschuster and Rainer 2012; Beblo and Gorges 2018; Campa and Serafinelli 2019).

Figure 1

Evolution of the Share of Women Working



As a result of these very different policies, the female labor market participation rate started to diverge after the division. Figure 1 illustrates how, starting from approximately the same level, the trends of women's share in total employment diverged between 1959 and 1987.

THE SOCIALIST LEGACY AFTER REUNIFICATION

After reunification, the government of the former Federal Republic of Germany took over East Germany and rapidly dissolved its institutions and structures, absorbing them into those of West Germany, which remained unchanged. Yet, persisting differences between the two regions are still observable 15 years later in the four aforementioned domains: labor market participation, household behavior, education, and values.

Labor Market Participation

It is remarkable that ten years after reunification, in 2000, labor force participation was still approximately the same for men and women in the regions of the former GDR (around 80 percent), whereas the gender gap remained wide in western Germany, with 65 percent of women in the labor force compared with 81 percent of men (Schenk 2003). In 2000, workers in eastern Germany generally worked longer hours than those in western Germany (probably a legacy of the different labor laws that prevailed during the division), but the gender gap was smaller as concerns working hours: 35 hours for women and 42 hours for men in the former GDR compared with respectively 29 and 40 hours in the former FRG. Finally, it is of interest to look at part-time employment, which is mostly the lot of women: in western Germany, part-time workers most often worked less than 20 hours and were not eligible for the same social benefits as full-time workers. In eastern Germany, part-time workers had longer hours, received identical social benefits and used these contracts primarily as a transition to retirement.

Because these differences could be due to some unobservable regional differences, such as the different equipment in kindergartens along an east-west axis, it is of interest to zoom in on smaller areas around the former East-West border, where people live in similar local conditions. Lippmann et al. (2019) used a survey that was run on a large sample of Berliners in 2011.¹ It turns out that, as of 2011, the proportion of working women is about 12 percentage points higher, i.e., approximately one third higher, among women who used to live in the East before 1990 as compared to women who used to live in the West. Here again, within Berlin, childcare facilities and other local amenities are identically accessible to every household, so that the women’s higher attachment to work can be attributed to their “East German” culture, rather than to the network of kindergartens or other local amenities.

Household Behavior

One of the most striking consequences of the greater involvement of eastern German women in the labor market is the more gender-equal distribution of earnings within couples. Figure 2 (taken from Lippmann et al. 2019) depicts the entire distribution of female relative income in dual-earner married couples aged 18–65. In the sample of western German couples, the mode is the point where the wife earns about 20 percent of the total family earnings. By contrast, in the eastern German sample, the distribution is much more symmetric, with the mode around equal earnings (see also Cooke 2007; Sprengholz et al. 2019).

Does the greater equality in the distribution of earnings abolish the so-called male breadwinner norm? As already evoked, the division of tasks within households often becomes self-sustained through gender norms and identity (Akerlof and Kranton 2000).

¹ UK Data Service, <https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=8267#1/details>

Going one step further in the reasoning, sociologists such as West and Zimmerman (1987) and Hoshchild (1989) coined the term “doing gender” to describe couples’ behavior aimed at preserving gender identity. The idea is that when women transgress the male breadwinner norm by earning more than their husband, they compensate this breach of identity by spending more time on traditional female tasks, such as housework. This “gender display” behavior has been documented by several studies in the case of American and Australian couples (Atkinson and Boles 1984; Brines 1994; Greenstein 2000; Bittman et al. 2003; Schneider 2011; Bertrand et al. 2015). Hence, as put by Bittman and her co-authors, “gender trumps money”. Could it be that socialist institutions have “undone gender”?

First, it is true that men participate more in housework in eastern Germany, although eastern German women still take on a greater share of housework (Cooke 2004, 2007; Kunzler et al. 2001). Moreover, it is of interest to look at the relationship between earnings and housework in the Länder of eastern and western Germany.

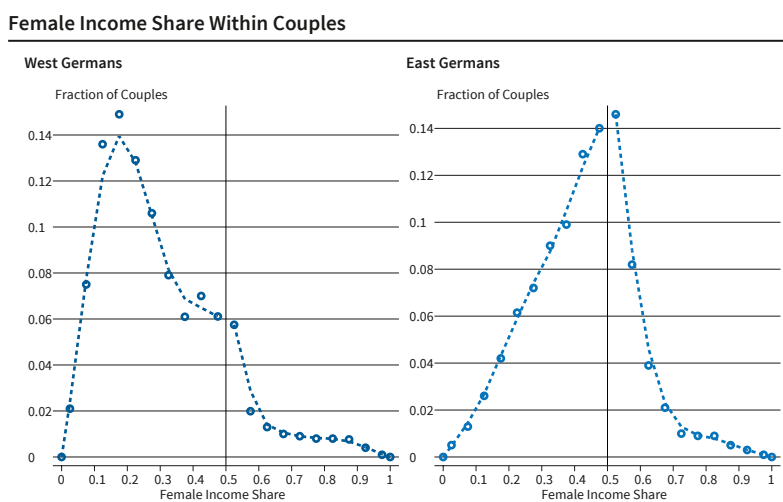
Lippmann et al. (2019) study this relationship. In a nutshell, they show that the male breadwinner norm is prevalent in western Germany but has disappeared in the east of the country. Regarding housework, western German women decrease their number of housework hours as their relative earnings rise, until they reach the vicinity of equal earning. Beyond that point, their number of housework hours stops decreasing. By contrast, there is no evidence of “doing gender” in eastern Germany. Eastern German women monotonically reduce the time they devote to housework as their relative contribution to household finances increases

Another sign of the male breadwinner norm can be found in marriage stability. Where gender norms are compelling, transgressing them could put one’s marriage at risk. Brines and Joyner (1999) and Cooke (2006) have documented this risk. To investigate, Lippmann et al. (2019) looked at the association between women’s relative income and marital instability.

It turns out that, among western German couples, when a wife starts earning more than her husband the risk of divorce in the next five years does indeed increase by about 3 percentage points. But nothing of this kind happens for eastern German couples.

Bertrand et al. (2015) have even shown that in order to abide by the male breadwinner model, American women avoid earning more than their husband. This drives some of them, when their earning capacity is greater than that of their hus-

Figure 2



Source: Lippmann et al. (2019).

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band, to simply withdraw from the labor market. Lippmann et al. (2019) find that this traditional behavior is also adopted by some western German couples, but not by eastern ones.

Hence, it seems that in eastern Germany the socialist episode has undone the male breadwinner norm and its consequences. By contrast, since reunification, the norm of higher male income, and its consequences, are still prevalent in western Germany

Education and the Gender Gap in Math

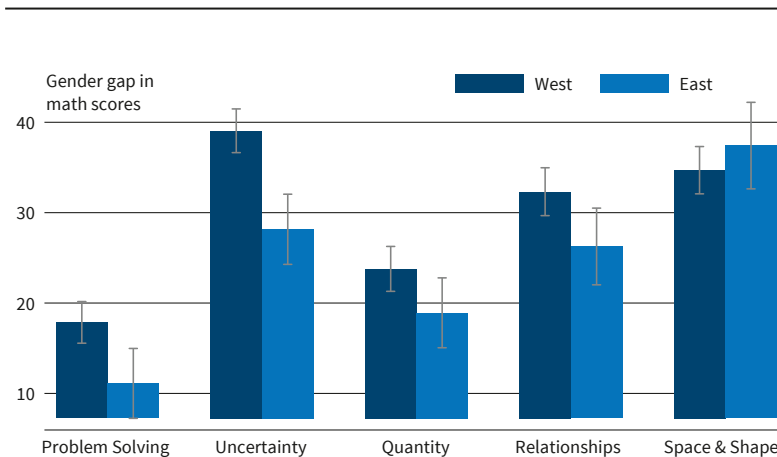
Another traditionally important domain of gender asymmetry is education. However, it is well established that women, starting from a lower level of education than men, have almost universally increased their level of education and have now reached a point where, on average, they spend more years in school and earn higher diplomas than men (Goldin et al. 2006; Goldin 2014; Kane and Mertz 2012; Autor and Wasserman 2013; Fortin et al. 2015). Nonetheless, it is also a general remark that women stay away from the fields of math and science (STEM), although they have now conquered most of the avenues to professional success, such as business, medicine, law, and biology, not to mention their traditional and intact advantage in reading and literature. They stagger at the door of math-based curricula and occupations, especially at top levels (Ceci et al. 2014; Blau and Kahn 2017). This has important consequences, as math skills are associated with higher individual earnings (Altonji 1995; Altonji et al. 2012; Blau and Kahn 2017) and faster GDP growth (Kimko and Hanushek 2000).

This educational behavior of women has been rationalized as the logic consequence of expecting a bleaker professional future. It has also been attributed to a gender stereotype carrying the idea that boys are “naturally” more skilled in math and science. De facto, several studies have shown that in countries where socio-economic gender inequality is higher, so is the size of the gender gap in math and science (Guiso et al. 2008; Nollenberger et al. 2014; Pope and Sydnor 2010; Hyde and Mertz 2009; Kane and Mertz 2012; Ellison and Swanson 2010).

Following this reasoning, the socialist episode should have altered such gender stereotypes in eastern Germany. This is not only because of the greater involvement of women in the labor market, but also because of the greater encouragement offered to girls by the education system itself (Trappe 1996; Campa and Serafinelli 2019).

Figure 3

Gender Gap in PISA-E Math Scores (2003)



Source: Lippmann and Senik (2018).

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The general gender gap in education has actually been shown to be smaller in former socialist countries as opposed to other OECD countries (Schnepf 2007; Amini and Commander 2012). As for Germany, Lippmann and Senik (2018) show that in eastern Germany, women’s educational attitudes differ from that of their western counterparts. The stereotypical threat that keeps them away from STEM has been durably attenuated in eastern Länder in contrast with western ones. This is illustrated by the scores obtained by 15-year-old German pupils in the math exercises proposed by the OECD Program for International Student Assessment (PISA-E 2003).

The underperformance of girls in math is still sharply attenuated in the regions of the former GDR in contrast with those of the former FRG. On average, the scores of eastern German pupils do not differ from western ones (Figure 3). Girls’ scores are lower than boys’ by 18 points (Problem Solving) to 39 points (Uncertainty), where the average score is about 500. However, the gender gap is reduced in eastern Germany by five points (Quantity) to eleven points (Uncertainty). The only exception is the Space and Shape category. In general, the gender gap in math is thus reduced in eastern Germany as compared to western Germany by about one tenth to one third, depending on the subjects. This is quite impressive, as this effect is measured at least ten years after the dissolution of the GDR.

In addition to tests, PISA also contains a student questionnaire. In general, the latter reveals that girls express a lower appetite for math, lower self-confidence, more stress, and less pleasure in the practice of math. But again, in eastern Germany the subjective gender gap in self-confidence in math is reduced by about one tenth to one third.

One of the main channels through which gender stereotypes are thought to influence girls’ attitude to math is that they “shy away from competition” (Nied-

erle and Vesterlund 2007; Croson and Gneezy 2009). It turns out that part of PISA’s student questionnaire addresses this notion of competitive spirit. Again, although girls generally express less competitive views, girls from Eastern Germany are much more competitively minded than girls from western Germany. Figure 4 plots, for each level of average math score, the gender gap in competitive attitudes. The gender gap in competitive spirit is generally greater in western Germany than in eastern Germany. But the difference between eastern and western Germany is particularly important at intermediate levels of performance. This suggests that the greater the uncertainty about their skills, the more girls underestimate themselves and shy away from competition. Indeed, at very low levels of math skills, it is likely that boys and girls have a precise notion of their (low) performance. The same reasoning goes for very high levels of performance. It is in between the two extremes that there is room for under/over-confidence, and this is where the gender gap in self-concept takes place.

Diverging Preferences

If the legacy of the more socialist gender-equal culture is cultural, it means that it is transmitted through values. Here, illustrations of the East-West divide are abundant.

Concerning the gendered division of labor, i.e., the allocation of time between paid work versus housework, both women and men in the former GDR express less support for the traditional male breadwinner family than their counterparts from the West (Breen and Cooke 2005). Preferences for gender roles are more egalitarian in eastern Germany and there does not seem to be a convergence over time between the two regions (Bauernschuster and Rainer 2012). On the contrary, there seems to be a persistence of the “gap in the gap”, i.e., a smaller gender gap in work-related attitudes in eastern Germany, as opposed to the west of the country. Attachment to work has remained higher

for eastern German women, as measured by the importance they declare to assign to work and their career, high income, and promotion opportunities (Beblo and Georges 2018; Campa and Serafinelli 2019; Lippmann et al. 2019). Questions related to motherhood and marriage also illustrate the more traditional views of western Germans in these dimensions (Bauernschuster and Rainer 2012).

In conclusion, citizens of eastern Germany seem to exhibit a certain “stubbornness” (Eigensinn) in retaining the “the German Democratic Republic standard biography” (Breen and Cooke 2005).

**CONCLUSIONS:
HOW GENERAL IS THE GERMAN CASE?**

Paid work and housework are two major elements of time use that are part of intra-household bargaining and are strongly influenced by gender stereotypes. The asymmetry in the financial contributions of spouses that derives from the traditional specialization of spouses into paid work versus housework has been pointed out as a source of male ruling, not only by feminists scholars, but also in the framework of household economic models à la Chiappori, where the male’s earning capacity plays the role of an outside option that grants him bargaining power. It so happens that the socialist institutions that prevailed in East Germany have partly reduced this power imbalance. The legacy of these changes is still visible more than 15 years after the reunification of Germany, in the education, work, and values of eastern versus western Germans.

Is the legacy of the socialist system the same in other central and Eastern European countries? Some evidence seems to testify to the affirmative, but new observations also suggest that a setback has taken place in several of these countries.

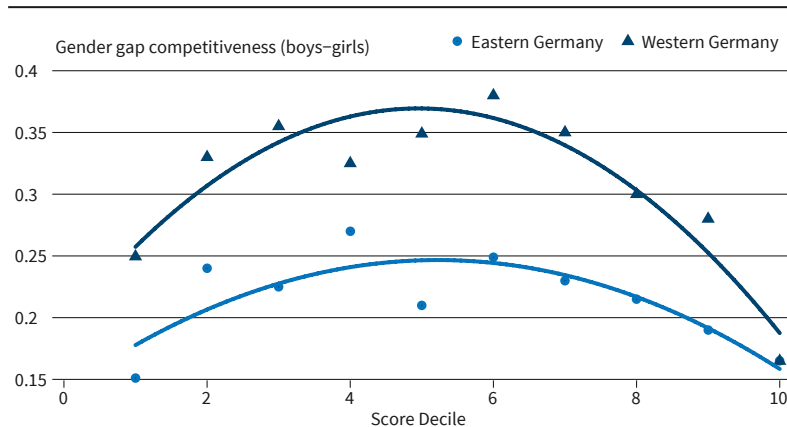
Concerning self-reported attachment to work and beliefs about gender roles and motherhood, Campa and Serafinelli (2019) have shown that the smaller gender gap in values is a hallmark of socialist states. Looking

at different generations of migrants from Europe to the United States, they showed that gender role attitudes formed in Eastern Europe are less traditional than those formed in the west. In particular, concerning the idea that “it is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.”

Concerning education, the system was deliberately more gender-equal during the socialist episode. For

Figure 4

Math Grades and Competitiveness in Math



Source: Lippmann and Senik (2018).

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example, the share of women in higher education was greater in Central and Eastern Europe than in the Western Europe (Campa and Serafinelli 2019). Looking at PISA for instance, it is noticeable that within the sample of European countries participating in PISA from 2000 until 2012, girls from formerly socialist countries closed more than half of the gender gap in math scores (Lippmann and Senik 2018).

Hence, from ten to twenty years after the dissolution of the GDR, one can still observe the legacy of the socialist episode on girls' self-concept and performance in math and math-related domains.

However, there also seems to be a backlash to more traditional behavior and policies in certain Eastern European countries. Mullerova (2017) for instance, showed that in the Czech Republic, mothers tend to prefer staying at home after their paid leave rather than going back to their guaranteed job under generous dispositions. It is an avenue for future research to investigate the reasons for this return to traditional gender models. Is it driven by the strength of religion, by the rejection of policies that were viewed as imposed by the Soviet Union, or by some other reasons?

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Michał Myck and Kajetan Trzciński
**From Partial to Full
 Universality: The Family 500+
 Programme in Poland and its
 Labor Supply Implications¹**



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INTRODUCTION

A recent extension of the flagship family support program of the Law and Justice government, the Family 500+, will add an extra cost of about PLN 18.3 billion (EUR 4.3 billion) per year to the already generous initial scheme, which cost PLN 21.9 billion (EUR 5.2 billion) per year and has been in operation since April 2016.² The value of the extended program will be equivalent to about 2 percent of Polish GDP. The program, which on introduction supported every second and subsequent child in the family with a sum of PLN 500 (EUR 118) per month and directed the same amount to every first child in low-income families, has become fully universal for all children aged 0–17 as of July 1, 2019.³ The initial design has substantially reduced absolute and relative child poverty in Poland (from 9.0 to 4.7 percent and 20.6 to 15.3 percent respectively between 2015 and 2017, GUS 2017) and may have played a role in a modest increase in the fertility rate following its implementation. As argued in Myck (2016) and in Magda et al. (2018), this came at a cost of reduced female labor market participation.

The level of financial support for families with children in Poland before 2016 was one of the lowest in the EU, and a higher level of transfers seemed necessary to reduce child poverty. Yet while increased financial benefits to low-income families were clearly called for, the cost of the proposed program and its relative generosity raised questions, on the one hand, of its long-run sustainability and, on the other, of the implications of the scheme for labor market activity among parents, and especially mothers. The program was already operational in April 2016, i.e. less than half a year after the general election that brought the Law and Justice party to power, and it was simultaneously rolled out across the whole country. This substantially limits the potential for ex-post evaluations of its labor market consequences, although several attempts have been

made since data for 2017 became available (see: Magda et al. 2018 and Premik 2019). The only existing ex-ante evaluation (Myck 2016) which was based on 2013 data, suggested that the scheme, as implemented in 2016, would in the long run reduce the labor supply of mothers by over 200,000. In this paper we present an update and an extension of this analysis using data from the latest year prior to the introduction of the Family 500+ program, i.e. 2015, testing the robustness of the results in an alternative specification and simulating both the initial design of the policy and its latest, extended, universal version. We follow the methodological approach of Myck (2016) and apply the approach to modeling labor supply decisions in the form of a discrete choice labor supply model along the lines of van Soest (1995) and Blundell et al. (2000), which has found numerous applications in recent decades and has been verified in a number of reduced form ex-post evaluations (e.g. Eissa and Liebman 1996; Francesconi and van der Klaaw 2007; Francesconi et al. 2009; Geyer et al. 2015).

The paper starts with an outline of the design of the Family 500+ program and a discussion of its generosity and distributional implications. Next we present the data we use for the analysis and some descriptive labor market statistics, as well as a basic outline of the labor supply model. We then present the results of the simulated labor supply effects of the initial and the universal versions of the Family 500+ program. We find that while the simulated response to the partially means-tested program is negative, the universal policy results in a broadly neutral labor supply reaction.

THE FAMILY 500+ REFORM: DESIGN AND DISTRIBUTIONAL IMPLICATIONS

The introduction of the Family 500+ program in April 2016 marked an unprecedented shift of financial resources towards families with children. The policy benefited 2.7 million families and increased the total value of the financial support for families with kids by about 140 percent (see: Myck et al. 2015, Myck et al. 2016, Brzeziński and Najsztub 2017, Goraus and Inchauste 2016). The policy was implemented alongside the existing instruments of family support, but the government decided to introduce the Family 500+ benefits in a way that did not reduce the eligibility of families to other means-tested transfers, such as Family Benefits or Social Assistance. In its initial format the policy consisted of the following key elements:

- Each family with two or more children aged 0–17 was eligible to (n-1) universal payments of 500 PLN per month, where n is the total number of children in the 0–17 age group in the family;
- Low-income families, those with net income up to PLN 800 per person per month, were additionally eligible to PLN 500 per month for their first (oldest) child in the 0–17 age group (the means test threshold was PLN 1,200 per person per month for families with a disabled child);

¹ The authors are grateful for support from the FROGEE project funded by the Swedish International Development Cooperation Agency, Sida. Data used for the analysis have been provided by the Polish Central Statistical Office (GUS) who bear no responsibility for the results and their interpretation. The paper uses CenEA's microsimulation model SIMPL, which has been developed in a number of collaborative projects since 2005.

² Throughout the paper we use the exchange rate from 1 April 2016 of EUR 1 = PLN 4.24.

³ PLN 500 was equivalent to 37 and 31 percent of monthly net minimum wage of a single person without children respectively in April 2016 and July 2019.

- Eligibility for payments for the first child was assessed with reference to the average monthly post-tax per capita family income from the most recent tax return of the parents or guardians of children, with special rules defining eligibility for farmer families.

The 2019 reform of the program largely boiled down to scrapping of the means test for the benefits targeted at the first child in the family. Additionally, the reform extended the benefits to children in institutional care and introduced several administrative simplifications.

In Figure 1 we present the budget constraints for stylized households in the three tax and benefit systems we model in our analysis: the baseline system of 2015 (“Baseline”), and two systems extended by the 500+ benefit: one with the initial 500+ design with means testing for the first child (“Initial 500+”); the other with fully universal eligibility (“Expanded 500+”). Figure 1 also includes an adjustment for the introduction of the tapered withdrawal of family benefits, a reform implemented in January 2016. As the budget constraints demonstrate, for a single-earner household with one child (case A) under the initial 500+ program the benefit is fully withdrawn when gross monthly family income reaches PLN 3,150 per month. In case C,

where the first earner receives PLN 2,187.50 per month (125 percent of the 2016 minimum wage) and there is one child in the household, the second earner only has to cross a threshold of PLN 940 per month for the family to lose the benefit. In stylized households with three children (cases B and D), the threshold is PLN 5,080 per month for a single earner and PLN 2,860 per month for the second earner in a two-earner household.

In Table 1 we present the distributional consequences of both the initial 500+ program and its recent extension by decile groups as a proportion of the respective total cost. Not only has the total expenditure nearly doubled with the expansion of the program, but – as could be expected – the additional spending is disproportionately allocated to the upper income deciles.

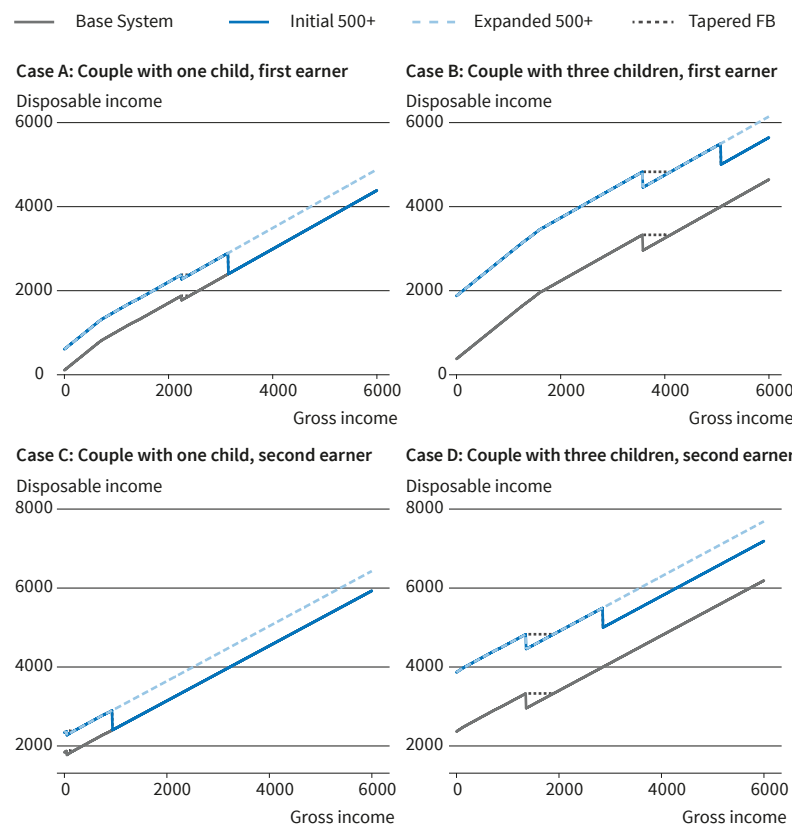
DATA AND LABOR MARKET DYNAMICS 2011–2017

The main set of results presented in the paper is based on data from the annual Polish Household Budget Survey (PHBS) for 2015 – the last year prior to the introduction of the 500+ program. These results are compared to simulations using earlier years of data (2013 and 2014), which are presented in the appendix. The

analysis follows the discrete choice labor supply framework (see e.g. Aaberge et al. 1995, van Soest 1995 and Blundell et al. 2000), which has long been a standard method of estimating preferences with regard to leisure and consumption (van Soest et al. 2002, Brewer et al. 2006, Haan and Myck 2007, Callan et al. 2009, Haan and Wrohlich 2011, Bargain et al. 2014, Figari 2015, Mastrogiacomo et al. 2017). Given that the approach relies on the assumption of choice of the optimal labor market state, we limit the samples to families with at least one individual who is defined as labor supply flexible. In our case we limit the sample to individuals aged 18–59/54 (respectively men and women) and exclude individuals who are: students, unemployed, disabled, and retired. We also exclude from the estimation those who are self-employed due to the usual limitations with regard to the precision of estimating their incomes in specific labor market scenarios. For individuals in couples, their decisions are modeled using two approaches:

Figure 1

Family Budget Constrains: Before and After the Introduction and Expansion of the Family 500+ Programme



Notes: All income is measured in Polish New Sloty per month. 'Tapered FB' represent the reformed withdrawal of Family Benefits which came into effect on 1st Jan 2016, i.e. prior to introduction of the 500+ Programme. Source: Authors' calculations using the SIMPL microsimulation model. © ifo Institute

Table 1

Cost and Distribution of Initial and Expanded 500+ Program

	Income deciles										Total annual cost (PLN bn)
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	
Initial 500+	10.16%	12.26%	13.04%	12.26%	11.02%	9.70%	7.87%	7.64%	7.59%	8.46%	21.86
Expansion of 500+ in July 2019	1.42%	3.01%	6.34%	7.98%	9.96%	11.92%	13.01%	13.83%	15.42%	17.11%	18.29
Total 500+	6.18%	8.04%	9.96%	10.28%	10.56%	10.73%	10.21%	10.48%	11.16%	12.40%	40.16

Notes: Values presented for deciles represent the proportional allocation relative to the total cost presented in the final column.
Source: Based on Table 5 in Myck et al. (2019). Calculated using CenEA's SIMPL tax and benefit microsimulation model based on 2017 PHBS data.

one in which both men and women – who are labor supply flexible according to the above conditions – are assumed to adjust to labor market incentives (Model A), and the second in which we assume that labor supply of men does not react to financial incentives (Model B) and is thus kept fixed. Models for singles and for couples with only one flexible partner are estimated separately for men and women.

Female Labor Market Dynamics in the PHBS Data

As background to the estimation, we present a brief description of labor market developments over the recent years in Poland using PHBS data for 2011–2017. In Figure 2 we show the dynamics of labor market status of women aged 20–54 split by the number of dependent children in the family. Figure 2a shows the proportion of women who declared working in the month of the interview, while Figures 2b–2d show employment rates, i.e. include women who declared having a job but who were away from it at the time of the survey.

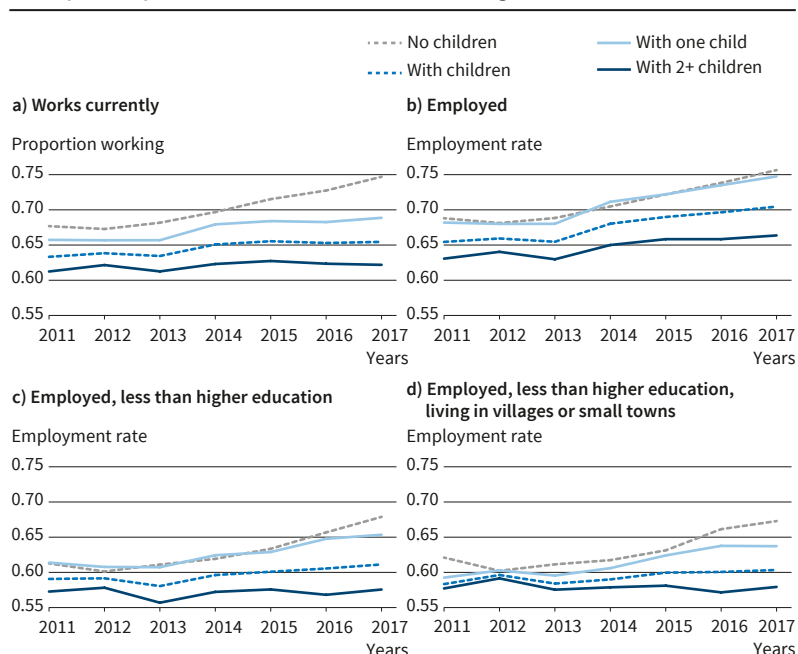
As we can see, there has been a substantial increase in labor market activity among women since about 2012, which has been particularly pronounced among women without children. What's worth noting is also the evident change from about 2013 in the proportion of women with children who are employed but are away from their jobs. This is reflected in the difference between the patterns in Figures 2a and 2b, where we can see a growing divergence in the proportion of women who work between those with and without children (Figure 2a) that is much less noticeable in the level of employment presented in Figure 2b. This

pattern reflects substantial increases in the length and coverage of maternal leave, which grew gradually from 18 weeks in 2009 to 26 in 2013 and was additionally extended by a further 26 weeks of parental leave that can be taken by either parent.

The rapid growth of the economy and the accompanying increases in the demand for labor in Poland, which started in 2015, finds its reflection in the substantial growth in employment among women both with and without children. The employment rate in the sample of childless women aged 20–54, as measured in the PHBS, grows from 70.5 to 75.6 percent between 2014 and 2017 and it is nearly matched by employment dynamics among mothers with one child (growth from 71.1 to 74.8 percent). However, a comparison of the employment rate among women without children to employment dynamics for all mothers and for those with more than one child shows some interesting differences. Employment among all mothers grew only

Figure 2

Employment Dynamics in Poland 2011-2017, Women Aged 20-54



Notes: Women aged 20-54; employment category (2b-2d) includes those currently working and those who have a job but are currently away from it. Women with children limited to those with the youngest child aged <18.
Source: Authors' calculations based on PHBS data from 2011-2017, using population adjusted grossing-up weights (Myck and Najsztub 2015).

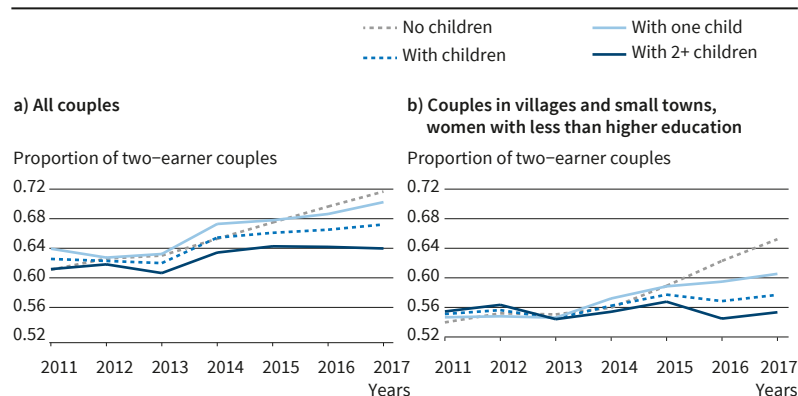
from 68.0 to 70.5 percent, while the employment rate among mothers of two or more children went up from 65.0 to 66.4 percent, despite the dynamic performance of the Polish labor market. While these differences cannot be taken as direct evidence of the effect of the changes in financial incentives to work resulting from the Family 500+ benefits, they seem to reflect a shift in labor market behavior among mothers following the introduction of the reform.⁴ Figures 2c and 2d provide further evidence in favor of the negative employment consequences of the introduction of Family 500+.

Figure 2c shows female employment dynamics for women with less than higher education, while in Figure 2d we further narrow the sample and focus on women with less than higher education living in small towns (up to 20,000 inhabitants) and villages. These groups of women are likely to face relatively low earnings, and they may additionally face other constraints in the form of poor access to public childcare and long distances to work. We would therefore expect mothers in these groups to react more strongly to changes in financial incentives such as the 500+ program. The evidence presented in Figures 2c and 2d seems supportive of such developments. Between 2014 and 2017, the employment rate among low-educated women without children went up by nearly 6 percentage points (p.p., from 61.9 to 67.9 percent), while among low-educated mothers of two or more children by only 0.4 p.p. (from 57.2 to 57.6 percent). Among women without higher education who live in villages and small towns (Figure 2d), the divergence in the pattern of employment is even more evident. The employment rate for women without children between 2014 and 2017 grew by 5.6 p.p., among those with one child by 3.1 p.p. and among those with two or more children it stayed essentially flat between 2014 and 2017 at around 58 percent.

Further evidence of labor market consequences of the introduction of the Family 500+ benefit can be drawn from changes in the pattern of employment among partners in couples. It has been well established in the literature that increases in means-tested

Figure 3

Employment Dynamics in Poland 2011-2017, Women Aged 20-54



Notes: Women aged 20-54, men aged 20-59; employment includes those currently working and those who have a job but are currently away from it. Women with children limited to those with the youngest child aged <18.

Source: Authors' calculations based on PHBS data from 2011-2017, using population adjusted grossing-up weights (Myck and Najsztub 2015).

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support, in particular in support which increases family out-of-work incomes in single-earner scenarios, tend to reduce the proportion of couples in which both partners are employed (e.g. Blundell et al. 2000, Haan and Myck, 2007). In Figure 3, we show the dynamics of the proportion of two-earner couples in the PHBS data from 2011–2017. The ratios are calculated for couples in which women are aged 20–54 and men are aged 20–59 and an earner is a person who is either working at the time of the survey or has a job and is currently away from it. As in Figure 2, we divide the sample into couples without and with children, and in the latter case split them further for those with one and with two or more children. In Figure 3a we present result for all couples, while in Figure 3b for couples living in villages and small towns in which the woman has less than higher education. The pattern of changes in the dynamics of the proportion of two-earner couples with and without children is once again strongly suggestive of a negative employment effect following the introduction of the Family 500+ reform in 2016. Among all couples (Figure 3a), and in particular among those in which women are likely to face low earnings (Figure 3b), we see a flattening or a drop in the proportion of couples with both partners in work against significant increases in this proportion for couples without children. The change in the dynamics of the pattern of employment in couples is particularly evident in Figure 3b. For couples living in rural areas in which women have less than higher education, the difference in the proportion of two-earner couples between childless couples and those with one child or more than one children in 2015 was 0.1 p.p. and 2.1 p.p. respectively. By 2017 it grew to 4.7 p.p. in the case of couples with one child and to 9.9 p.p. among those with two or more children. Clearly, other developments may have contributed to such a pattern, but the change in the follow up of the introduction of the Family 500+ reform

⁴ It needs to be noted that on January 1, 2016 a new mechanism for mothers of newborns was implemented that extended support to those who do not qualify for insurance-based maternal and parental leave benefits. This policy (with benefits of up to PLN 1,000 per month) may also have negatively affected the level of labor market participation among women. However, these benefits cover only mothers of children up to the age of one. We run robustness tests of the labor supply reaction in which we excluded mothers of children below one year old from the analysis. Such sample restrictions limit our estimates of the labor supply reaction to the 500+ program by 7–10 percent.

strongly suggests that it was one of the important drivers of the observed dynamics.

MODELING LABOR MARKET CHOICES

The most comprehensive approach to ex-post modeling of the consequences of the Family 500+ reform so far has been presented in Magda et al. (2018), who use the Polish Labor Force Survey data and estimate the effect of the reform by comparing the dynamics of labor market activity among mothers and women without children before and after the introduction of the benefit in April 2016. The estimated effects suggest a drop in labor market participation of around 100,000 women about one year after the introduction of the reform. Due to the nature of this analysis, these results reflect only short-term implications; as a result of sample limitations, they cover only mothers with one or two children. The approach also highlights the difficulty with identification of an appropriate control group for an ex-post estimation in a situation when the treatment is fully rolled out at a single point in time, as was the case with the Family 500+ reform. The advantage of the structural approach presented here is that the change in financial incentives resulting from the reform can be isolated by design from all other developments in the labor market. This facilitates singling out of the labor supply consequences of the simulated changes in the generosity of family support.

Following the approach used in Myck (2014 and 2016), given the level of detail in the PHBS data we base our structural model on three labor supply scenarios: not employed, part-time employed, and full-time employed. For models where we estimate decisions of singles or of couples with only one flexible partner, this implies considering a choice between these three options, while in specifications where we model decisions of both partners, we model the choice from among nine labor supply combinations (three for each of the partners).⁵ In the latter case, the most general specification of the deterministic part of the utility function is:

$$U_{ij}(c_{ij}, w_{ij}^m, w_{ij}^f) = \beta_{1i}c_{ij} + \beta_2(c_{ij})^2 + \beta_{3mi}w_{ij}^m + \beta_{3fi}w_{ij}^f + \beta_{4m}pt_{ij}^m + \beta_{4f}pt_{ij}^f + \gamma_{1f}c_{ij}w_{ij}^f + \gamma_{1m}c_{ij}w_{ij}^m + \gamma_{2f}c_{ij}pt_{ij}^f + \gamma_{2m}c_{ij}pt_{ij}^m + \gamma_{3mf}w_{ij}^m w_{ij}^f$$

(1)

where c_{ij} is consumption of household i in labor market scenario j , equivalent in this static context to disposable income in scenario j , w_{ij}^m and w_{ij}^f are dummy variables for work status – either full- or part-time – of the man and woman respectively, while pt_{ij}^m and pt_{ij}^f are dummy variables for part-time work. Naturally, the utility functions assumed for couples with only one flexible partner and for singles are more straightforward, as in these cases we model a decision of only one person. In

⁵ In the case of so-called complex households in (Haan and Myck 2012), i.e. households made up of more than one nuclear family, we model only the decisions of the main family in the household and treat the behavior of other household members as exogenous.

the first case – assuming the flexible partner is female – the deterministic part of the utility function takes this form:

$$U_{ij}(c_{ij}, \bar{Y}_i^m, w_{ij}^f) = \beta_{1i}c_{ij} + \beta_2(c_{ij})^2 + \beta_{3fi}w_{ij}^f + \beta_{4f}pt_{ij}^f + \gamma_{1f}c_{ij}w_{ij}^f + \gamma_{2f}c_{ij}pt_{ij}^f$$

(2)

\bar{Y}_i^m represents the income of the man, which is assumed to be fixed across the j labor market states of the woman. The partner’s income in equation (2) is the only element of the utility function that distinguishes the specification for couples with one flexible partner and singles.

Individuals are assumed to maximize their utility subject to a household-level budget constraint that is a function of wages (ω_i), work status (w_{ij}), household characteristics (X_i), out of work incomes (y_i), and the tax and benefit function (φ). The latter translates gross incomes into disposable incomes, which in this static setup are assumed to be equivalent to the level of consumption. Thus, in the case where we model the decisions of partners in couples, the budget constraint function takes the following form:

$$c_{ij} = \phi[\omega_i^m, \omega_i^f, w_{ij}^m, w_{ij}^f, X_i, y_i]$$

(3)

The budget constraint is adjusted accordingly for singles (see Myck 2016 for details). To capture heterogeneity in preferences between different types of families, parameters β_1 and β_3 of the utility function are interacted with individual and family characteristics. The estimation is done using the conditional logit model. While this relies on a number of assumptions, earlier studies have shown that relaxing them in static models – for example through accounting for unobserved heterogeneity – changes little as far as the resulting elasticities and model predictions are concerned (e.g. Haan 2006, Myck 2014).⁶

RESULTS: SIMULATING THE LABOR SUPPLY RESPONSE TO THE FAMILY 500+ REFORM

The parameters of utility functions estimated using the approach described above may serve on the one hand to identify labor supply elasticities (see Myck 2014 and 2016), and on the other to simulate labor market reactions to changes in the budget constraint, which may result from changes in earnings and from reforms to the tax and benefit function.

In Table A1 in the Appendix, we present details of the estimated net income elasticities (see Myck 2014 2016). The most notable point with regard to the stability of the estimated parameters is the reduction in labor supply elasticity among women in couples between 2013 and 2015. For example, own net income elasticity among women in “two flexible” couples falls from 0.70 in 2013 to 0.61 and 0.65 in the two following

⁶ The sample sizes for the estimation on the 2015 data are: 3,004 for single women, 13,456 for women in couples using Model A approach, and 13,755 using Model B approach.

Table 2

Effects of the Initial and the Expanded Family 500+ Program on Female Labor Supply

	Initial 500+		Expanded 500+	
Single women:	-24,500 (2,052.0)		-3,000 (741.1)	
Women in couples:	Model A	Model B	Model A	Model B
	-133,100 (7,344.8)	-179,000 (7,359.4)	18,000 (4,683.9)	-17,800 (3,318.5)
Total:	-157,600	-203,500	15,000	-20,800

Notes: Simulated averages rounded to nearest hundred. In couples with two labor supply flexible partners, Model A allows labor market adjustment of both partners in couple while Model B keeps male labor supply fixed: in such a case, all women in couples are modeled as if they were in one person flexible couples; standard errors calculated using the parametric bootstrap given in parentheses.

Source: Authors' calculations based on 2015 PHBS data using population adjusted grossing-up weights (Myck and Najsztub 2015).

years respectively. Among women in “one flexible” couples, total net income elasticity stood at 0.64 and fell to 0.50 and 0.58 in the following years in the Model A specification; it stood at 0.67 and fell to 0.54 and 0.58 in the Model B specification. Labor supply elasticities among men in couples are consistently very low, while among singles range between 0.06 and 0.11, significantly lower compared to single women (0.23–0.29). As a consequence of the low values of labor supply elasticities, the resulting labor market response to the benefit reform among men is negligible. In the presentation of the results, we thus focus only on the labor supply of women.

The estimated labor supply effects resulting from the introduction of the Family 500+ program are calculated on the basis of the simulated labor market choices under the baseline and the reformed tax and benefit systems. Simulation results isolate the effects of the two versions of the Family 500+ program: the one initially introduced in April 2016 (“Initial 500+”), and the program’s expansion to a fully universal system as of July 2019 (“Expanded 500+”). Both versions of the program are simulated *as if* they came into effect in 2016, i.e. are modeled on the preferences estimated prior to the implementation of the initial version of the reform.

Using the latest pre-reform estimates, based on 2015 PHBS data, the simulated effect of the Family 500+ program as implemented in 2016 is a reduction of female employment of between approx.160,000 and 200,000, based on Models A and B respectively. Of this total labor market response, 24,500 are lone mothers. Approximately 50 percent of the simulated labor supply reduction are mothers of only one child and only about 10 percent falls on mothers with three or more children. As is evident from the simulation of the expanded, fully universal 500+ program, which does away with the means testing of the benefit for the first child, the negative labor supply effects almost entirely disappear in the Model B specification, and in Model A the simulated response is positive. In both cases, the absolute numbers are low given the scale of the universal 500+ design. Under the Model B specification, the simulation suggests a reduction in the labor supply of about 20,000 women, while under the Model A specification, it suggests an increase in the labor supply of about 15,000.

In either case, it is important to note that we simulate the fully universal Family 500+ reform *as if* it were implemented at the time when the initial design of the reform came in, i.e. in early 2016. In reality, it was only proposed by the government three years later and came into effect in July 2019. As demonstrated by Magda et al. (2018), some of the withdrawal from the labor market resulting from the changed incentives after April 2016 had already happened before the universal benefit was introduced and it might take some time for the labor market to return to higher employment levels following the introduction of the fully universal design of the program in July 2019. In Table A2 in the Appendix, we show the simulated response based on earlier data – from 2013 and 2014. The differences compared to the simulations based on 2015 data are broadly consistent with the estimated changes in labor supply elasticities. Simulations based on the earlier years of data suggest the total negative effect of between 180,000 and 210,000 following the initial 500+ reform and between minus 19,000 and plus 10,000 in response to the universal design.

CONCLUSION

Since April 2016, Polish families with children have been receiving universal support of PLN 500 for each second and subsequent child aged 0–17 years and on top of that an additional PLN 500 per month for the first child in this age range if monthly family income fell below the threshold of PLN 800 per person (or PLN 1,200 in the case of child disability). The Family 500+ program, with an annual cost of about PLN 22 billion (1.1 percent of GDP), has had a substantial effect on the material situation of about 2.7 million families with children, which represent nearly two thirds of the families with children in this age group. It has contributed to significant reductions in the level of child poverty and may have increased fertility, although the latter is difficult to identify and increases in the number of births since 2016 have been modest. In July 2019, the government further extended the program and made it fully universal for all children in the 0–17 age group, adding further a PLN 18.3 billion to its annual cost, which implies that the total cost of the program will amount

to nearly 2 percent of GDP. As demonstrated in Myck et al. (2019), the extension will largely benefit middle- and high-income families, with nearly one third of the extra cost channeled through to families in the top quintile of the income distribution.

In this paper, using the Polish Household Budget Survey for 2015, i.e. the latest year prior to the introduction of the program, we updated earlier results of Myck (2016) and showed that the overall equilibrium labor supply effect of the rollout of the partially universal Family 500+ in 2016 could be expected to result in a withdrawal of between 160,000 and 200,000 women from the labor market. A simple comparison of employment dynamics among women with and without children between 2011 and 2017 suggests divergence in female employment trends after 2015, which is in line with the simulation, and the results are broadly consistent with a short-term ex-post analysis of Magda et al. (2018). It is worth noting, though, that our analysis is a clear *ceteris paribus* simulation and singles out only the financial aspect of the reform. Thus, it does not account for other factors that may have been a consequence of the reform, such as changes in wages or work conditions to limit the outflow of female employees. Similarly, we also cannot account for labor market adjustments aimed at ensuring that family income is just below the means-test threshold. There has been some anecdotal evidence for both of these phenomena, and they would both limit the negative employment consequences of the reform. Additionally, recent increases in wages, fueled by rapid economic development and significant growth in the minimum wage after 2015, reduced the value of the 500+ benefits relative to in-work income, and may have also limited its negative labor market effects.

Our labor supply simulations also covered the fully universal design of the Family 500+ program as if it were implemented instead of the initial design in April 2016. The results suggest that doing away with the means test for the 500+ benefits for the first child in the family either almost entirely limits the negative labor supply consequences of the program, or even leads to a positive labor supply response. The simulated range of the labor supply reaction to this fully universal 500+ design ranges between minus 21,000 and plus 15,000. This on the one hand demonstrates a major role that the means test has played in determining the labor supply reaction, and on the other suggests that the program's negative effects on the employment of women may disappear over time. Whether and how quickly this happens will depend on the degree of state dependence on the Polish labor market and the ease with which women who dropped out of employment will be able to return to work. Such returns would certainly be facilitated by the favorable conditions on the Polish labor market should they continue in the coming months.

The medium- and long-run benefits of the Family 500+ program will need to be judged on their merits and set against the cost of the policy. As we have shown

in this paper, broadly speaking the fully universal design has advantages in terms of its neutral implications for female employment, although there is no doubt that with this amount of resources the benefit could be designed in a way that would encourage much higher participation among women (see, e.g. Bargain and Orsini 2006, Immervoll et al. 2007, Brewer et al. 2010, Figari 2015, Kurowska et al. 2017). At the same time, only 14.2 percent of the PLN 40 billion (about EUR 9.4 billion), which is the total annual cost of the fully universal scheme, will be distributed to families in the bottom quintile of the distribution. While the initial, partially means-tested design has already been criticized for its poor benefit targeting on low income households (Brzeziński and Najsztub 2017), the performance of the universal scheme will by design be worse. The third dimension of the program, perhaps the crucial one given the background of record low fertility rates, is its consequences for parents' decisions with regard to family size. Poland's fertility rate following the introduction of the program has slightly increased (from 1.29 in 2015 to 1.44 in 2018), although given the scale of the reform its growth has been rather disappointing. Whether families decide to have more children in response to the fully universal design of the program is unclear, since its extension will largely benefit those on middle and high incomes for whom financial constraints are less likely to stop or delay procreation decisions.

Distributional and labor supply analysis of the Family 500+ program suggest therefore that at a cost of 2 percent of GDP it is not a very efficient mechanism for reducing poverty and in its latest format it is neutral with regard to female employment. It also seems unlikely on its own to significantly increase the fertility rate. Higher family incomes may, of course, result in improved long-term outcomes for today's children (Carneiro et al. 2015), but here again the question is if the same effects could not be achieved with better targeting. Combined with other family benefits and child tax credits, the total value of financial support for families with children is now around 4 percent of GDP, which is one of the highest levels in the European Union. Given the complex set of objectives that such support aims to achieve and the structure of the tax and benefit system following the introduction and the extension of the Family 500+ program, it seems that a comprehensive approach to the redesign of the full set of policies for families with children might be needed to effectively reduce poverty, encourage a higher level of female labor market activity, and provide conditions for higher rates of fertility.

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APPENDIX:

Table A1

Net Income Elasticities Derived on the Basis of the Estimated Labor Supply Models for the Years 2013, 2014, and 2015

Model A: two flexible couples		Own net income elasticity		Cross net income elasticity	
Men:	2013	0.032	(0.006)	-0.002	(0.005)
	2014	0.029	(0.004)	-0.001	(0.001)
	2015	0.033	(0.004)	-0.003	(0.001)
Women:	2013	0.700	(0.028)	-0.040	(0.008)
	2014	0.614	(0.028)	-0.021	(0.005)
	2015	0.645	(0.027)	-0.014	(0.010)
Total net income elasticities:					
Model A: one flexible couple:		Men		Women	
	2013	0.039	(0.012)	0.636	(0.052)
	2014	0.039	(0.011)	0.498	(0.051)
	2015	0.027	(0.011)	0.577	(0.059)
Model B: one flexible couple:		Men		Women	
	2013	0.040	(0.011)	0.665	(0.023)
	2014	0.039	(0.010)	0.539	(0.022)
	2015	0.030	(0.011)	0.581	(0.023)
Singles:		Men		Women	
	2013	0.111	(0.018)	0.232	(0.024)
	2014	0.069	(0.014)	0.290	(0.022)
	2015	0.062	(0.012)	0.278	(0.020)

Notes: In couples with two labor supply flexible partners, Model A allows labor market adjustment of both partners in couple while Model B keeps male labor supply fixed; in such a case, all women in couples are modeled as if they were in one person flexible couples; standard errors, calculated using the parametric bootstrap, given in parentheses.

Source: Authors' calculations based on 2013, 2014, and 2015 PHBS data using population adjusted grossing-up weights (Myck and Najsztub 2015).

Table A2

Labor Supply Effects of the Initial and the Expanded 500+ Program: Based on 2013 and 2014 Data

	Initial 500+		Expanded 500+	
2013:				
Single women:		-23,600 (2,818.0)		-3,500 (1,005.1)
Women in couples:	Model A	Model B	Model A	Model B
	-189,800 (8,164.8)	-189,000 (9,102.1)	-2,600 (3,325.9)	-3,000 (1,367.6)
Total:	-213,400	-212,600	-6,100	-6,500
2014:				
Single women:		-30,000 (2,531.3)		-6,000 (1,036.2)
Women in couples:	Model A	Model B	Model A	Model B
	-147,000 (8,238.5)	-168,100 (8,063.3)	15,400 (3,167.7)	-13,000 (3,316.7)
Total:	-177,000	-198,100	9,400	-19,000

Notes: Model A allows labor market adjustment of both partners in couple; Model B keeps male labor supply fixed; standard errors, calculated using the parametric bootstrap, given in parentheses.

Source: Authors' calculations based on 2013 and 2014 PHBS data using population adjusted grossing-up weights (Myck and Najsztub 2015).

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Political and Economic Transition of Formerly Socialist Countries

For many decades, the world was divided into socialist and capitalist countries. The countries east of the Iron Curtain were characterized by a one-party-system and a socialist economic system. The economic system was marked by the absence of markets and a price system; instead allocation was done by the planning administration. As a result, the production structure followed the priorities imposed by the administration. At least on the micro-level, chronic shortages prevailed in many areas and were paired with surpluses in other areas. The so-called soft budget constraint is one of the phenomena in this system: as the state cannot commit to letting firms become insolvent, the firms anticipate that the state will bail them out. This, of course, had negative effects on the firms' efficiency (Roland 2000). In the end, many countries, in particular the Soviet Union, experienced enduring economic stagnation. In order to solve the resulting problems, several attempts at gradual reform were undertaken. However, in 1989 the Berlin Wall fell unexpectedly, and the Soviet Union collapsed in 1991. Since then, the formerly socialist countries have undergone a fundamental transition, both politically and economically. The following article will explore the developments that have occurred since the fall of the Iron Curtain and will describe and compare the current political system as well as the institutional and regulatory environment of the formerly socialist countries. The analysis will be centered around two main indicators – 1) the Polity Score, describing regime authority characteristics and transitions in government, and 2) the Ease of Doing Business indicators, scoring countries on essential components of doing business such as resolving insolvency and starting a business – as measures for the institutional environment that a government has to provide so that markets function properly.

POLITY IV PROJECT

The Polity IV Project, a part of the Integrated Network for Societal Conflict Research, established by the Center for Systemic Peace, is a set of indicators that describe regime authority characteristics and transitions in government. It is an annual and cross-national time series that analyzes data for all independent countries with a population of over 500,000 (167 countries as of 2017).

The project aims to divide all polities into three separate groups, based on their polity score on a scale from -10 to 10: autocracies (-10 to -6), anocracies (-5 to 5) or democracies (6 to 10). This final polity score is calculated by subtracting the autocracy score from the democracy score, both of which aim to display the most general autocratic and democratic tendencies within a polity.

To make comparison possible, both indices include the same general categories reflecting access into and competitiveness of the political system, as well as constraints upon executive powers. While the democracy index (ranging from a score of 0 to 10) displays a citizen's ability to (successfully) conduct oppositional political activities, unhampered from negative consequences, the autocracy index (ranging from a score of 0 to 10) displays the contrary, mainly the limitations upon access into the executive ranks and political activity. For example, if a country is fully democratic, it would have a democracy score of 10 and an autocracy score of 0. The final polity score (democracy-autocracy) would thus be 10, making it a fully democratic country. If a country has a democracy score of 1 and an autocracy score of 8, then its overall polity score would be -7 (democracy-autocracy), making it a country with autocratic characteristics.

The data included in these indices is focused on the socially institutionalized and "real world" implementation of a polity's hierarchical structure and gathered through the analysis of historical accounts and research. To standardize the necessary interpretation and allow for comparability, key determinants for autocratic or democratic regimes are displayed in the form of a checklist. As an example, a point on the checklist regarding competition in the political systems is whether there have been multi- or single-party systems. As a whole, the indicator allows direct comparisons of nations and the levels of freedom that countries have within their governments.

The scores are individually displayed in the following tables for four different country groups, namely: Central Europe and the Baltics, South Eastern Europe, Central Asia, and Eastern Europe and the Caucasus. For the country groupings, we follow the structure used by the European Bank for Reconstruction and Development (EBRD). The scores are offered from the dissolution of the Soviet Union in 1991, until the most recent scores in 2017.

Central Europe and the Baltics

In 1991, there was only one country in Central Europe and the Baltics with a polity score below 0, namely Croatia (-3). Estonia had a score of 6; the Czech Republic, Latvia, and Poland a score of 8; and Hungary, Lithuania, and Slovenia a score of 9. From 1991 until 1998, the scores remained generally consistent, with an average of 7 for all countries in Central Europe. In 1999, the average increased from 7 to 8, rising to 9 in 2000. This change

Table 1-4

Table 1

Central Europe/Baltics	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Croatia	-3	-3	-3	-3	-5	-5	-5	-5	1	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9
Czech Republic	8	8	10	10	10	10	10	10	10	10	10	10	10	10	10	9	9	9	9	9	9	9	9	9	9	9	9
Estonia	6	6	6	6	6	6	6	6	7	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Hungary	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Latvia	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Lithuania	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Poland	8	8	8	8	9	9	9	9	9	9	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Slovakia			7	7	7	7	7	9	9	9	9	9	9	9	9	10	10	10	10	10	10	10	10	10	10	10	10
Slovenia	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Table 2

South Eastern Europe	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Albania	1	5	5	5	5	0	5	5	5	5	5	7	7	7	9	9	9	9	9	9	9	9	9	9	9	9	9
Bosnia and Herzegovina		0	0	0																							
Bulgaria	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
North Macedonia	6	6	6	6	6	6	6	6	6	6	6	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Kosovo																		8	8	8	8	8	8	8	8	8	8
Montenegro																	9	9	9	9	9	9	9	9	9	9	9
Romania	5	5	5	5	5	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Serbia																	8	8	8	8	8	8	8	8	8	8	8

Table 3

Eastern Europe and the Caucasus	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Armenia	7	7	7	7	3	-6	-6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Azerbaijan	-3	1	-3	-3	-6	-6	-6	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7
Belarus	7	7	7	7	0	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7
Georgia	4	4	4	4	5	5	5	5	5	5	5	5	5	7	7	7	6	6	6	6	6	6	6	7	7	7	7
Moldova	5	5	7	7	7	7	7	7	7	7	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9
Russia		5	3	3	3	3	3	3	3	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4
Ukraine	6	6	5	7	7	7	7	7	7	6	6	6	6	6	6	6	7	7	7	7	6	6	6	6	4	4	4

Table 4

Central Asia	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Kazakhstan	-3	-3	-3	-3	-4	-4	-4	-4	-4	-4	-4	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6
Kyrgyzstan	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	3	4	3	3	1	4	7	7	7	7	7	7	8
Tajikistan	-2	-6	-6	-6	-6	-6	-5	-1	-1	-1	-1	-1	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
Turkmenistan	-8	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-8	-8	-8	-8
Uzbekistan	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9

Source: The Policy Project (2018).

was driven by the transitions in the Croatian government at that time. After the end of the Croatian War of Independence in 1995, the country was in a state of post-war recovery for several years. After the elections of 2000, the country put in place a new government system that was much more democratic (Freedom House 2008). This change led to a transition from a polity score of -5 in 1998 to a score of 8 in 2000. Croatia is now similar in its level of democracy to other nations in the EU, with a score of 9, a score shared by the Czech Republic and Romania. Hungary, Lithuania, Poland, Slovakia, and Slovenia have the highest score of 10. All countries have held their current scores for the past ten years.

South Eastern Europe

Table 2 shows the scores of nations categorized as being in south-eastern Europe by the EBRD. This region includes the countries (Bosnia and Herzegovina, North Macedonia, Kosovo, Montenegro, and Serbia) that formerly belonged to SFR Yugoslavia, which started to collapse in 1991 and faced a series of wars on its former territory. This explains why in some of the countries, the reporting starts later. Within this region, there has been a trend towards full democracy, with every country holding a score of 9 in 2017 with the exception of Serbia, which holds an 8. There has been extreme sta-

bility since 2005, since when no country has changed score. In 1989, three nations held scores below 0, namely Albania with a score of -9, Bulgaria with a score of -7, and Romania with a score of -2. However, all three countries quickly reformed their political system, having completed some form of transition by 1990. Bulgaria underwent the most dramatic change, having a score of -7 in 1989 and jumping to a score of 8 in 1990. Albania performed a similar feat over the course of three years, changing from a score of -9 in 1989 to 1 in 1990 to 5 in 1992. However, within four years, Albania had fallen back to a score of 0. By 1997, it had once again transitioned towards democracy and now holds a score of 9. Both Serbia and Montenegro have held constant scores since they were first reported by the Polity Project in 2006, when they formally dissolved their union. Serbia has been scored at 8 and Montenegro has been scored at 9. Bosnia has not been scored since 1995 as it functions with a decentralized government. In the 1990s, there were many transitions and changes in government in this region. However, it has become a very stable region, with the last major transitional period ending in 2005.

Eastern Europe and the Caucasus

In Eastern Europe, there are three countries that were formerly parts of the Soviet Union and now border the new EU member states: Belarus, Moldova, and Ukraine. Belarus saw a drop in its score from 7 in 1994 to -7 in 1996, where it has since remained. Ukraine has also slid back, but to a lesser degree, having dropped from a peak score of 7 in 2009 to 6 until 2014, when it dropped to 4. Moldova, in contrast, is now among the most democratic nations, with a score of 9. Thus, these three countries are quite diverse, covering all three classifications of the polity score: autocracy, anocracy, and democracy, respectively. Russia started off with a score of 5 in 1992 and fell to a score of 2 from 1993 onwards. This increased to a score of 6 from 1994 to 2000, when it dropped to a score of 4, which it has held since then.

The Caucasus region is similarly scattered in terms of development, with its three nations – Armenia, Azerbaijan, and Georgia – also currently holding scores that include all three government types. Azerbaijan, after a one-year spike to a score of 1 in 1992, quickly fell back into autocracy, with its score falling 8 points in six years. It now holds the third-lowest score of all post-Soviet countries, tied with Belarus at -7. At the time of its independence, Armenia held the third-highest score of all post-Soviet nations: 7. However, after 1994, it quickly fell to -6 in 1996, but recovered to a score of 5 in 1998. Since then, Armenia has retained this score of 5, holding just below the threshold for a democracy. Georgia initially held a score of 4, but in two periods, 1994–1995 and 2003–2004, its score rose to 7 before falling again to 6 in 2007. In 2013, it returned to a score of 7, which it holds as of 2017.

CENTRAL ASIA

In Central Asia, the former Soviet Union nations of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan are almost all autocratic states, with the exception of Kyrgyzstan. After a six-year transition from 2005 to 2011 from a score of -3 to 7, it was the first and only one of these nations to achieve democracy, and now has a score of 8, implying a relatively strong democracy. Tajikistan made progress towards democracy in the late 1990s, progressing from a score of -6 in 1996 to -5 in 1997 up to a peak of -1 in 1998 before dropping to a consistent -3 in 2004. While it is still more autocratic than democratic, among its neighbors it is one of the most democratic-leaning nations. Kazakhstan, Turkmenistan, and Uzbekistan are all autocracies, with scores of -6, -8, and -9 respectively, with Uzbekistan holding near to the lowest possible score.

Overall, the successor states of the former Soviet Union are scattered across the spectrum of democracy and autocracy; the overall trend, however, is towards democracy. Only six nations hold scores below 0, meaning that they have more autocratic tendencies than democratic, while the remaining nine hold scores of at least 4, with five countries holding scores of at least 8. An overview of the development over time of the Former Soviet Union countries can be seen in Figure 1.

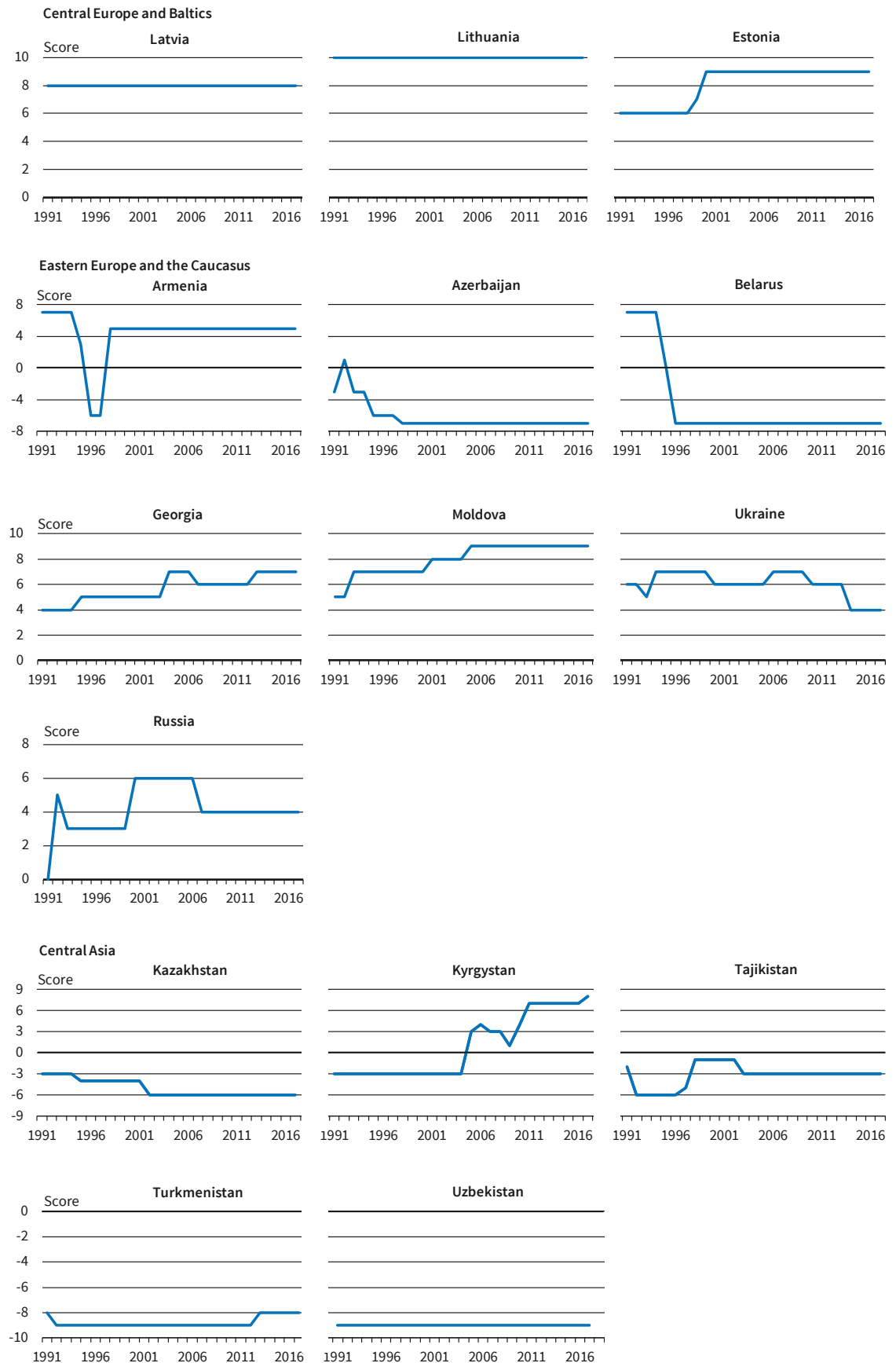
EASE OF DOING BUSINESS INDICATORS

At the same time as the change in political systems commenced the transition from socialist to more market-based economies took place. To measure this development, we have chosen the Ease of Doing Business Index, as it captures the institutions and regulations that govern the operation of firms, which are the core of a market-based economy.

The index is created by Doing Business, which is part of the World Bank Group. It measures, scores, and ranks countries according to their performance regarding their legislative, regulatory, and institutional environment for private businesses in the following fields: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. Each of these sub-categories is made up of individual indicators, which are all considered essential components of doing private business (41 individual indicators in total across all sub-categories). To obtain the required data, the World Bank regularly conducts surveys and questionnaires with businesses around the world, supplementing them with expert accounts on the regions. Alternatively, it directly requests the data from local utilities (e.g., electricity or water suppliers), experts (often lawyers), and administrations or registries. The final index score is derived by averaging the countries individual performance in the ten sub-categories. The maximum achievable overall

Figure 1

Polity Scores for Countries of the Former Soviet Union (1991–2017)

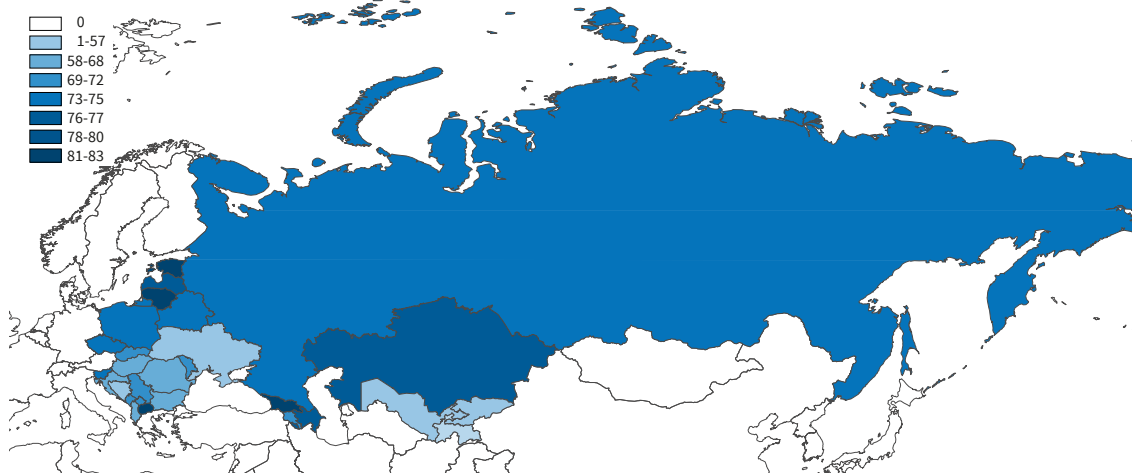


Source: The Polity Project (2018).

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Figure 2

Ease of Doing Business Score (2018)



Source: The World Bank (2019).

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score (as well as the maximum score in each sub-category) is 100, and the minimum is 0. A country's individual performance in each indicator is determined in contrast to a global best and worst performance, which is usually set every five years.

From the indicators, we have chosen to include the overall "Ease of Doing Business" indicator, the "Resolving Insolvency" indicator, and the "Starting a Business" indicator. We included the "Ease of Doing Business" indicator as a way of looking at the overall trends. We chose the sub-categories "Resolving Insolvency" and "Starting a Business" because they are two particularly interesting aspects of doing business: after the end of the socialist system and during the transition from a planned economy to a market economy, alongside the handing over of state-controlled business to private owners, many businesses had to be closed and many more were to be newly started.

Figure 2 shows a map of Central, Eastern, and South Eastern Europe as well as Central Asia along with these regions' overall scores, showing the large amount of variation.

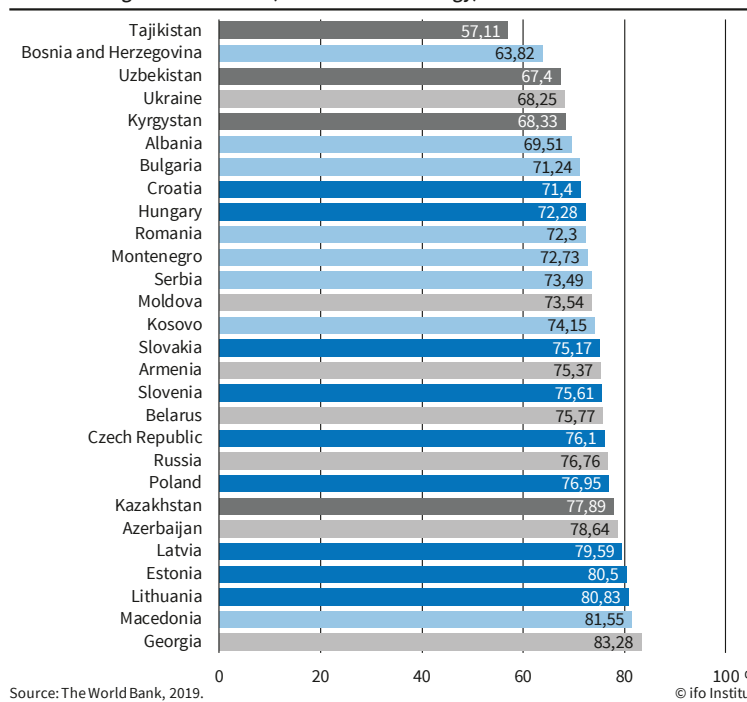
We find that the nations of Eastern Europe and the Caucasus and Central Asia generally achieve a higher score in the "Starting a Business" category than those in Central Europe and the Baltics and South Eastern Europe. This is not the case for "Resolving Insolvency," a category dominated by countries in Central Europe and the Baltics and South Eastern Europe.

Sub-category: Ease of Doing Business

Figure 3 shows the "Ease of Doing Business" scores for all nations of interest grouped into Central Europe and the Baltics, South Eastern Europe, Eastern Europe and the Caucasus, and Central Asia. Within the countries of interest, the scores range from a minimum score of 57.11 for Tajikistan, yielding a rank of 126 of 190, to 83.28 for Georgia, yielding a rank of 6th. Three of our top five countries, namely Estonia, Latvia, and Lithuania, are in Central Europe and the Baltics. Overall, the countries in this region receive the highest score, with an average of 76.5, followed by Eastern Europe and the

Figure 3

Ease of Doing Business Score (DB17-19 Methodology)



Source: The World Bank, 2019.

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Caucasus (average 75.8), South Eastern Europe (72.3), and Central Asia (67.7).

Sub-category: Resolving Insolvency

The data for the “Resolving Insolvency” category is derived from surveys with local insolvency practitioners and verified through a study of laws and regulations as well as public information on insolvency systems. The insolvency practitioners are presented a hypothetical insolvency case, which is adjusted in terms of size to be comparable across countries. The two indicators for the “Resolving Insolvency Index” are the recovery rate, which is the recovered percentage per dollar invested by an external (secured) creditor after the judicial insolvency process (also taking into account the time and costs during the process), and a separate strength of insolvency framework index, which is in turn the sum of four further separate indices and describes the potential within a country for viable firms to be maintained while non-viable ones are liquidated. Keeping viable businesses operating is among the most important goals of insolvency systems. A good insolvency regime should prevent the premature liquidation of sustainable businesses. A high score implies a high performance in these regards. These indices mainly concern individual participation rights within the formal process of insolvency: for example, by whom and against which standard the liquidation process gets started, whether the debtor retains certain rights to maintain his business and finance dealings, or the extent to which the voting rights are distributed and weighted between the debtor(s) and creditor(s) (Doing Business 2019).

Figure 4 displays the “Resolving Insolvency” scores, with the same categorization as in Figure 3. The highest-ranked nation is Slovenia, with a score of 83.66 and a global rank of 9. The lowest-ranked nation among the sample is Tajikistan, with a rank of 146 and a score of 30.9.

Sub-category: Starting a Business

The “Starting a Business” category consists of four indicators that comprise the steps necessary to legally start a local limited liability company, namely: the number of procedures needed (defined as individual interactions with authorities, notaries, etc.), the time (in calendar days) and overall costs (including fees and taxes, excluding bribes) to complete the whole formal process, as well as the minimum cap-

ital requirements to be eligible for starting said business. The last two indicators are displayed as a percentage of income per capita in the specific country. To obtain internationally comparably data, the Doing Business team sets up two hypothetical cases, which have a starting capital that is adjusted according to the country’s per capita GDP. Based on information from laws, regulations, and other publicly available sources, data on the indicators above is collected. The data is reviewed by experts in the country (Doing Business 2019).

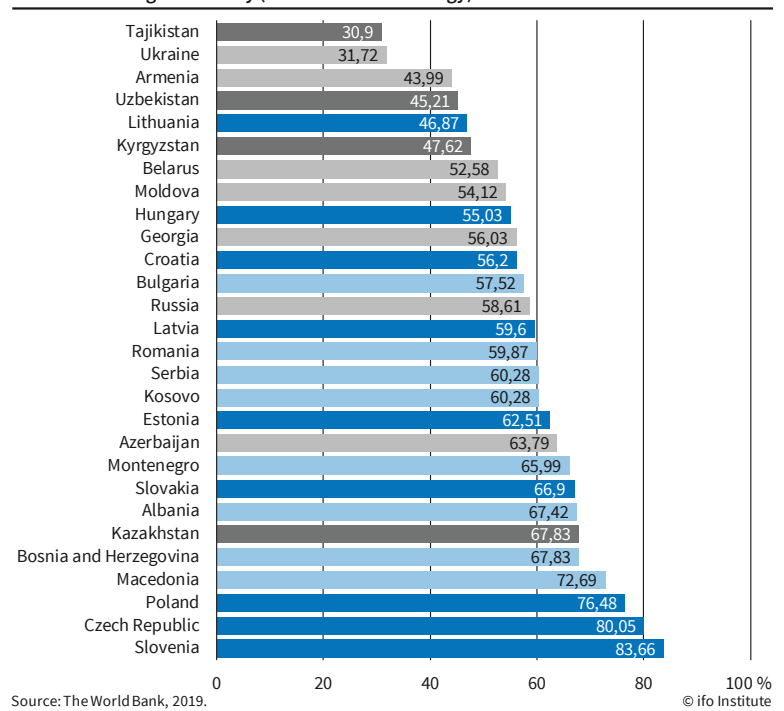
Many Western countries perform relatively badly in this category. For example, Germany and Austria have ranks of 114 and 118, placing them in the bottom 50 percent of nations in the world in this category. Many of these economies tend to be highly bureaucratic and regulated, leading to long periods and high costs in the process of starting a new business. However, in other nations, where these regulations are more relaxed, starting a business can be a very simple.

Among the countries of interest, the nations of Eastern Europe and the Caucasus are the best performers in the “Starting a Business” category. Georgia, Armenia, and Azerbaijan hold the top three spots in terms of the ranking of our study, with overall ranks of 2, 8, and 9, respectively. Georgia has a score of 99.34 in this category. The range of scores has a minimum score of 59.57, as found in Bosnia and Herzegovina. The individual scores for the countries of interest are displayed in Figure 5.

In Georgia, for example, there is no required paid-in capital and only a single process, which takes two days on average to complete, for starting a busi-

Figure 4

Score: Resolving Insolvency (DB15-19 methodology)



ness. In Germany, however, there are nine processes that must be completed, lasting on average eight days, and requiring minimum paid-in capital of around 30 percent of annual per capita income. The stricter regulations in many more developed countries hinder the ability of individuals to quickly start a business at low cost. While these regulations might, for instance, prevent insolvencies in the future, these factors are not taken into account in the indicators, and so nations that rank lower in other categories rank much higher here and vice versa.

The Doing Business indicators are not necessarily indicative of economic welfare, but rather give an insight into the workings of the government and regulatory agencies of each economy, showing how restrictive or lax they are with respect to businesses. Because of this, there is a large degree of variation within the countries of interest. The overall score and rank is an aggregate score, made up of the scores in the sub-categories, meaning that the overall rank does not necessarily hold strict trends.

CONCLUSION

Our article describes the tremendous changes that have taken place in the formerly socialist countries both politically and economically. With respect to their political systems, many countries, in particular those in Central and South Eastern Europe and the Baltics, are considered democracies by the Polity IV indicator. In the area covered by the former Soviet Union, there are several autocratic countries where we also observe fluctuations and some downgrades over time. Com-

pared to the political system, the patterns for the institutional and regulatory environment as captured by the Doing Business indicators are very different. We focus on the ease of starting a business and resolving insolvency, as the entry and exit of firms is vital for a functioning market-based economy. In these Doing Business indicators, former Soviet Union countries fare particularly well. This demonstrates that political change and institutional and regulatory change are not necessarily closely linked.

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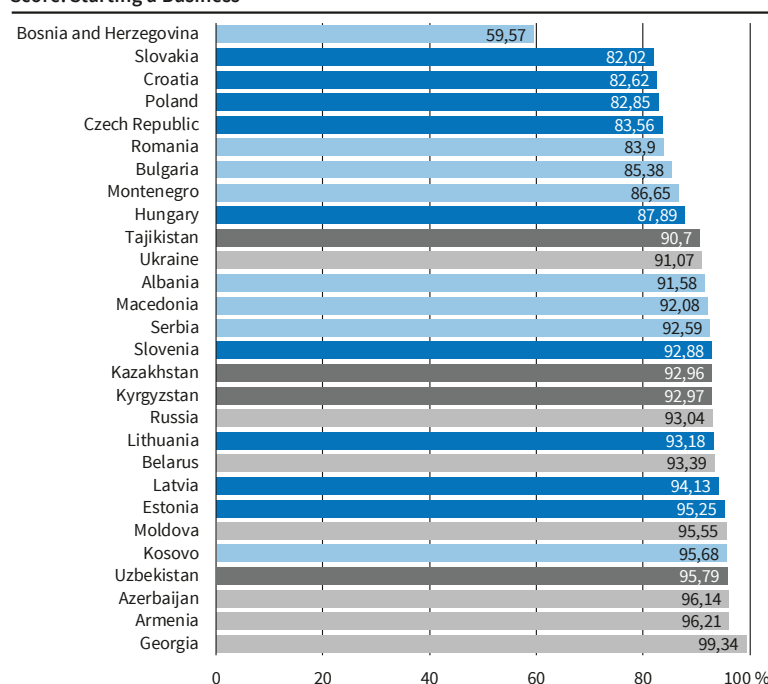
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Figure 5

Score: Starting a Business



Source: The World Bank, 2019.

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New at DICE Database

RECENT ENTRIES TO THE DICE DATABASE

In the third quarter of 2019, the DICE Database received a number of new entries, consisting partly of new topics and partly of updates. The list below features some of these new entries:

- ICT Development Index (IDI)
- E-Government Index (EGI)
- Global Cybersecurity Index (GCI)



Forthcoming Conferences

CESifo Area Conference on the Economics of Digitization 2019

22–23 November 2019, Munich, Germany

CESifo is inviting submissions for the 2019 CESifo Area Conference on the Economics of Digitization. The area studies the societal and economic consequences of digitization. It has a wide scope of relevant research and its aim is to bring the leading researchers from both sides of the Atlantic working on topics in the relevant fields of economics (including, but not limited to, IO, big data, labour, growth, education, media, public finance and political economy). The keynote lecture will be delivered by Denis Nekipelov (University of Virginia). Scientific organizers: Stephen P. Ryan

CESifo-Delphi Conference on The Effects of the Digital Transformation on the Workplace and the Labor Market

28–29 November 2019, Munich, Germany

Advances in artificial intelligence, robotics, and the availability of “Big Data” are changing the world and, in particular, the workplace. It is widely agreed that these technologies will lead to an increasing number of tasks being automatized, that are so far carried out by humans. Many aspects of how this change affects the workplace are to date understudied although they have a high relevance for decisions of policy makers, the structure of firms, and the well-being of employees. The CESifo-Delphi Conference Series (organized by CESifo and the Athens University of Economics and Business) will bring researchers together from economics and related fields, to build a deeper knowledge about the effects of the digital transformation, to devise potential interventions within firms or by policy makers and evaluate the effects of these interventions to prepare organizations and their workforce for the upcoming challenges. The keynote lecture will be delivered by Maria Guadalupe (INSEAD) and Catherine Thomas (LSE).

Scientific organizers: Thomas Moutos, Florian Englmaier and Oliver Falck

13th Workshop on Political Economy

29–30 November 2019, Munich, Germany

CESifo, the Center of Public and International Economics (CEPIE) at TU Dresden and the ifo Institute, Dresden Branch, will jointly organize a workshop on Political Economy. In the tradition of the previous workshops, the conference will take place in Saxony’s capital Dresden. The two-day workshop will serve as a forum to present current research results in political economy and will give researchers the opportunity to network. The keynote lectures will be delivered by Heinrich Ursprung (University of Konstanz) and Alois Stutzer (University of Basel).

Scientific organizers: Gunther Markwardt, Niklas Potrafke and Christian Lessmann

11th Norwegian German Seminar on Public Economics

6–7 December 2019, Munich, Germany

CESifo, the Norwegian Center for Taxation at NHH, and Oslo Fiscal Studies at UiO will organize the 11th Norwegian-German Seminar on Public Economics, to be held at the CESifo conference centre in Munich. Financial support from the Research Council of Norway is gratefully acknowledged.

Scientific organizers: Marko Köthenbürger and Dirk Schindler

New Books on Institutions

Citizenship 2.0 – Dual Nationality as a Global Asset

Yossi Harpaz

Princeton University Press, 2019

How to Democratize Europe

Stéphanie Hennette, Thomas Piketty, Guillaume Sacriste, Antoine Vauchez

Harvard University Press, 2019

THE DATABASE FOR INSTITUTIONAL COMPARISONS OF ECONOMIES

The Database for Institutional Comparisons of Economies – DICE – was created to stimulate the political and academic discussion of institutional and economic policy reforms. DICE is a unique database offering comparative information on national institutions, regulations and economic policy. DICE also contains data on the outputs (economic effects) of institutions and regulations.

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