Social Foundations of Income Inequality in Postsocialist Europe

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Abstract
While income inequality during socialism was considerably lower than in other countries at comparable levels of development, it increased significantly in all Central and East European states after the fall of communist regimes. Nevertheless, some postsocialist countries managed to maintain comparatively low inequality levels ten years into the transition period while inequalities have skyrocketed in other states. What explains these differences? This paper is one of the first longitudinal cross national analyses of the factors that determine income inequality in ten Central and East European countries in the first decade after 1989. Results from random and fixed effects regression analyses suggest that the established Kuznets’ theory for explaining income inequality for Western transitions to capitalism is inappropriate for a very different socio-historic setting of East European transformations. Rather, for this case we find that rising income inequality is principally related to the processes of privatization, whereby private sector expands, foreign investment increases and state redistribution decreases, as well as social exclusion of ethnic minorities during the time of heightened ethnonationalist sentiments in postsocialism. These findings point to the social foundations of economic inequality trends and substantiate the utility of a context sensitive, rather than universalistic, explanation of income inequality.

Keywords
income inequality, development, privatization, ethnicity, foreign investment, Central and Eastern Europe
Introduction

The official ideology of socialism portrayed it as a system that ensures social justice and equality. The Party-state would secure full employment, and take care of the basic needs of people by providing universal education, health care, subsidized housing and cultural goods (Kornai 1992). While actual socialist systems did not erase inequalities (Szelényi 1978), scholars overwhelmingly agree that social inequality during socialism was substantially lower than inequality in other systems at comparable levels of industrial development (Boswell and Chase-Dunn 2000, Heyns 2005).\footnote{In one of the very few studies that include socialist countries in their analyses of inequality, Alderson and Nielsen (1999) find that the presence of a Marxist/Leninist regime in a country reduces inequality. In their dataset on 108 countries, the authors include also six (former) communist societies (Bulgaria, China, Hungary, Poland, Vietnam and Yugoslavia) for the period of 1967 to 1994. They find a significant negative relationship between the presence of Marxist-Leninist regime in a country and social inequality. Ceteris paribus, the Gini coefficient in state socialist countries is estimated to be somewhere between 5.3 to 10.1 points lower than in other countries, depending on model specification.}

With the collapse of communist regimes, state-level efforts to reduce inequality were largely abandoned. After 1989, Central and East European states quickly embraced market exchange as the governing economic principle and capitalism as the preferred system of economic organization. They also began to integrate into the global economy by opening their borders to foreign direct investment, which was restricted during the socialist period.

Since the onset of these overarching transformations, social inequalities in Central and Eastern Europe have, without exception, increased throughout the region (for review see Heyns 2005). The rising trends are depicted in Figure 1 which shows levels of income inequality from 1989 to 2001 for ten Central and East European countries. In 1989, the Gini index for these countries was on average 22, but only a dozen years later this figure increased to 34. The magnitude of this change becomes evident if we consider that during this same period Gini index increased for about 3 points in the United States, and that in a few West European countries it actually declined somewhat (Alderson and Nielsen 2002).

Figure 1. Rising Income Inequality in Postsocialist Europe (1989-2001)
However, despite this general rising trend, differences across individual postsocialist countries are quite substantial. As displayed in Figure 2, ten years into the transition period, some postsocialist countries managed to maintain comparatively low inequality levels while these have sky-rocketed in other states. For example, Gini indices for Romania, Estonia and Lithuania in 2001 are close to the high levels we find in the Anglo-Saxon countries. On the other hand, inequality levels in Slovakia, Czech Republic and Slovenia after ten years of market reform resemble those of Scandinavian countries, known for their relatively equitable income distribution. How can we explain this cross-country variation? Which aspects of the postsocialist transformations can help account for these differences? To answer these questions, this paper undertakes one of the first longitudinal cross-national analyses of income inequality in ten Central and East European countries in the first decade since 1989.

Figure 2: Income Inequality Trends in Individual Post-Socialist Countries, 1990-2001

In addition to enhancing our understanding of postsocialist transition, examining the determinants of income inequality in Central and Eastern Europe since the collapse of communist regimes is also a strategic research site to address an important strand in the inequality literature - the research based on the widely accepted general explanation about development and inequality provided by economist and Nobel Prize laureate Simon Kuznets (1953, 1955). The case of Central and Eastern Europe problematizes the idea of a ‘natural’ path of economic development that produces different levels of social inequality along the way. Rather, we argue that not only economic but also specific structural,
political and cultural contexts shape social stratification. Low levels of inequality during socialism were largely due to the communist ideology that supported a socialist redistributive command economy. Likewise, political choices about privatization at the onset of market reform in postsocialist Europe, and societal changes that weakened the redistributive role of the state and legitimated the exercise of self interest in the market, have influenced income inequalities in postsocialism. This suggests that Kuznets’ theory, explaining within- and cross-national inequality primarily in terms of economic development, is inadequate and poorly applicable to the case of postsocialism. It fails to consider the influence of social, political and cultural forces on economic processes, which has been the subject of economic sociology (for review see Smelser and Swedberg 2005). Research in this field has made an important contribution by showing that economic action at the level of individuals and organizations is shaped by social forces. Nevertheless, economic sociologists have yet to more systematically uncover the social, political and cultural foundations of macroeconomic outcomes (Ingham 1996) and pay more attention to stratification and inequality (Swedberg 2003). Studying changes in macro-level income inequality during large-scale transformations in Central and Eastern Europe, therefore, provides an ideal opportunity to advance these lines of economic sociology.

Kuznets’ Theory about Development and Inequality

Simon Kuznets' (1955) inverted-U hypothesis is one of the most influential explanations of income inequality, for some even an ‘economic law’ (Robinson 1976: 437). The hypothesis stipulates a curvilinear relationship between economic development and inequality: in the course of economic development income inequality rises, peaks at intermediate levels of development, levels off, and declines at the highest levels of development. From this perspective, economic development follows a ‘natural path’ from traditional / agricultural to industrial societies. Corresponding structures of social stratification are driven by this general economic trajectory. To explain the inverted-U curve, and explicate how economic development drives trends in income inequality, Kuznets focused on the differences between agricultural and non-agricultural sectors in the course of development, on the expansion of education and on the demographic transition. We examine each of these aspects of his model in turn.

Size of Agricultural Sector and Sector Dualism

Kuznets posited that at an early development stage, most of the labour force is in agriculture. With development, an increasing proportion of the labour force shifts to the higher-income industrial sector, so that in the high stages of development the agricultural sector is very small. Since he stipulated that differences between households in agriculture are relatively weak, Kuznets concluded that inequality in the agricultural sector is typically low. Therefore, societies with large agricultural sectors should show lower overall inequality. Based on Kuznets’ explanation, we could expect that differences in the size of the agricultural sector contribute to differences in income inequality in postsocialist Europe.

However, we must acknowledge that during the course of the market transition in Central and Eastern Europe, labour did not move significantly from the agricultural to the industrial sector. Indeed these societies were already at a high level of industrial and urban development when the revolutions of 1989 hit. Rather, what happened because of market reforms was a reduction of the industrial sector on account of the rise in the service sector, without a corresponding flow into agriculture. If anything, many displaced workers because of the abandonment of the socialist full employment policy (Róna-Tas 1997) and massive restructuring of industrial enterprises joined the ranks of the unemployed (Nesporova 2002). Because of these specific structural changes, we would expect that it is greater unemployment, not changes in the agricultural sector, that lead to greater income inequality.

In addition to within sector inequality, Kuznets also paid attention to sector dualism, which refers to the inequality arising from the difference in average income between agricultural and non-
agricultural sectors (cf. Nielsen 1994). Sector dualism is calculated as $|p - L|$ where $p$ is the share of GDP in agriculture and $L$ is the percent of the labour force in agriculture. According to Kuznets, sector dualism increases with development because labour transitions out of agriculture into industry and its contribution to the total output decreases. Hence, greater sector dualism should be associated with greater income inequality among households (also found by Alderson and Nielsen 1999, 2002). However, based on the definition of dualism, we should keep in mind that even when the movements out of the agricultural sector are not significant (as for instance in postsocialism), if this sector becomes more and more impoverished, resulting in a lower contribution of agriculture to GDP (and lower denominator in the dualism ratio), sector dualism will also increase, marking a greater differentiation between the agricultural and non-agricultural sector, and hence increased overall inequality. We hypothesize that this is actual the mechanism by which sector dualism could influence inequality in postsocialism.

The Spread of Education

An integral part of Kuznets’ development model is also the influence of the spread of education on inequality. According to a standard economic argument, education increases the overall human capital of the labor force and thus contributes to a more skilled labor supply. A higher aggregate skill level reduces the skilled wage premium, which lowers overall inequality between households (Tinbergen 1975; Lecaillon et al. 1984; Simpson 1990; Williamson 1991; Nielsen 1994; Gottschalk and Smeeding 1997; Alderson and Nielsen 1999, 2002). Meyer and Hannan (1979) showed that secondary school enrolment has the strongest impact on economic development, compared to enrolments at other levels. Hence, this operationalization of educational expansion has been widely used in previous studies (e.g. Lecaillon et al. 1994, Lindert and Williamson 1985, Nielsen 1994, Nielsen and Alderson 1995, Alderson and Nielsen 1999, 2002) with the expectation that greater secondary school enrolment will be associated with lower income inequality.

But should we expect this higher skills/lower wage premium/lower inequality mechanism to also account for differences in income inequality during postsocialism? Consistent with their focus on social equality, socialist authorities made several provisions to equalize access to education (Ganzeboom and Nieuwbeerta 1999, Kreidl 2004). Although these efforts were often imperfect (Gerber and Hout 1995), they led to relatively high secondary school enrolments in socialist Europe (Ganzeboom and Nieuwbeerta 1999, Boswell and Chase-Dunn 2000, Heyns 2005) and these levels have not substantially changed ten years into the transition period. Hence, we hypothesize that it is unlikely that differences in secondary enrolment levels will significantly contribute to the explanation of the income inequality differences within and across these countries after the collapse of communist regimes.

The Demographic Transition

According to Kuznets, the inverted-U shaped trend between economic development and inequality also rests on the demographic transition. Specifically, Kuznets posited that increases in population growth in developing countries create an influx of young workers into the labour market, which increases the supply of young and rather unskilled labour. This tends to drive wages down, and increase inequality between the working poor and other strata of society. Empirical analyses following Kuznets substantiated the positive relationship between population growth and inequality (Ahlwalia 1976, Bollen and Jackman 1985, Simpson 1990, Alderson and Nielsen 1999).

However, what is distinctive about demographic trends in postsocialism is that these societies, as much of the Western world, have been experiencing ‘the second demographic transition’ (Van de Kaa 1987; Lesthaeghe and Surkyn 1988; Raley 2001; Lesthaeghe 1995; Lesthaeghe and Neels 2002). This transition is principally characterized by the decline in fertility to a level ‘well below replacement’ (Van de Kaa 1987: 4) as well as changes in family formation and living arrangements. Therefore, what
we see in postsocialism as a result of these changes is a population decline, rather than population growth. Moreover, it is unlikely that within such a short term that we consider in this study, population changes could have an effect on the supply of workers on the labour market. Hence we don’t anticipate finding evidence for the demographic effect on inequality stipulated by Kuznets.

(Ir)relevance of Kuznets’ Theory for the Postsocialist Case

The above discussion makes us highly suspect that the theory developed by Kuznets who linked income inequality to economic development provides an appropriate and relevant theoretical framework for understanding the differences in income inequality among postsocialist countries during the transition period. Moreover, when we empirically observe inequality and GDP trends for ten most advanced postsocialist countries included in our study, it is very obvious that little ‘economic development’ was going on during this transition period. Namely, all of these countries suffered net declines in GDP levels during a large part of the period between 1990 and 2001, many not reaching pre-1990 levels for almost a decade. However, at the same time, income inequality has increased in all these countries.

Moreover, theoretically, Kuznets’ explanation is based on the universalistic assumptions about sector differences and the workings of supply and demand in determining wages on the labour market. As such, this economic theory disregards the role of social, political and institutional factors on inequality trends. To account for these social influences we would like to contrast the explanatory power of Kuznets’ theory with a sociological explanation that uncovers the social foundations of income inequality in postsocialism and takes into account the specific structural, political and cultural transformations in Central and Eastern Europe after 1989 and their consequences for income inequality.

Social Foundations of Income Inequality in Postsocialism

Changes in Central and Eastern Europe are marked by the simultaneity of economic, political and social transformations brought about by revolutions of 1989. This necessitates that trends in income inequality in this region be viewed as part and parcel of broad-scale societal transformations. In essence, these transformations involve a fundamental change of the institutional structure of society, from a socialist command economy ruled by an autocratic Communist Party, which privileges collective interests, to a market-based economy where a plurality of political options is available and individual interest and self-reliance become the bases of a new moral order. In addition, these processes happen during a time of intensification of nationalist sentiments in the region, and during the intensification of global flows of capital, which find their way also to Central and Eastern Europe. Therefore, we want to highlight three social processes that are part and parcel of postsocialist transformations and encourage differentiations in income-inequality in post-1989 Central and Eastern Europe: a) privatization, b) nationalism, and c) globalization.

Privatization

Soon after the revolutions of 1989, all Central and East European states embarked on building capitalism. Economic packages adopted to accomplish this daunting task focused on the three pillars of reform: stabilization, liberalization and privatization. As market exchange requires the institution of private property, privatization – the conversion of a system where private ownership was absent to one where economic actors have property rights – was universally recognized as necessary for market transition. Nevertheless, privatization was not a uniform and objective by-product of economic

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2 Some countries in fact started reforming their socialist economies even before 1989, in particular Hungary, Poland, the former Yugoslavia, as well as former Soviet republics after Gorbachev came to power in 1985.

How to best achieve privatization and how quickly it should be done were the questions integral to the debate between those who argued for a rapid, shock therapy, approach to market transition and those in favour of a more gradualist approach. The advocates of the shock therapy agreed that rapid mass privatization would allow for the most economically optimal solution. Such privatization would involve distribution of vouchers (quasi company shares) to the population. Then via auctions voucher-holders (individuals or investment funds) would invest these ‘shares’ into specific firms, which would thus become joint-stock companies with individual owners. Subsequently, these owners could struck efficient bargains and further exchange shares at will, which would lead to eventual consolidation of shares by strategic investors willing to engage in firm restructuring, contributing to overall improved economic performance (Shleifer and Vishny 1994; Boycko, Shleifer and Vishny 1995).

As expected, those evolutionary economists, organizational scholars, political scientists and sociologists who espoused the necessity of gradualist transformations were sceptical about the viability and eventual benefits of mass privatization. Moreover, these observers emphasized the deeply social character of the privatization process, which could not be achieved quickly and straightforwardly because it was ultimately grounded in political and moral questions (Stark 1992, Stark and Bruszt 1998, Verdery 2004). Hence, the speed of the privatization was certainly not the only issue. Political choices needed to be made about the beneficiaries of privatization. Should privatization entail the distribution of free certificates to citizens, which they can subsequently exchange for ownership stakes? Or should a system be devised that would require citizens pay a nominal fee for such vouchers? Instead of a ‘voucher privatization,’ should assets simply be auctioned off to the highest bidder? Moreover, should privatization encourage domestic or foreign ownership of a country’s assets? Should it allow for dispersed or concentrated ownership? These decisions, we argue, ultimately had an effect on social differentiation in postsocialism.

In practice, postsocialist countries chose among alternative paths to private property. Each country selected a unique combination of different policies that can be broadly characterized as property restitution, voucher privatization, direct sales, or management/employee buy-outs (Brada 1996, EBRD 2001). Over the years, individual Central and East European countries implemented different combinations of these strategies (Dallago et al. 1992, Earle et al. 1993), with several countries adopting all four strategies. Nevertheless, management/employee buyouts (MEBOs) were not common in the Czech Republic and the three Baltic states. Also, Hungary did not adopt a voucher scheme, and there were no direct sales in Slovenia.

As concerns the dilemma whether privatization should be rapid or gradual, despite the initial wide support of mass privatization programs among the international policy elites (Spicer, McDermott and Kogut 2000), this strategy was widely contemplated, and planned, but it was not implemented across the Central and East European region. Even if we define mass privatization quite conservatively as a program that covered at least 25 percent of all large state-owned enterprises over a period of two years (King and Hamm 2006), then mass privatization happened in the Czech Republic, Latvia, Lithuania and Romania, but not in Bulgaria, Estonia, Hungary, Poland, Slovakia and Slovenia. Nevertheless, significant differences have remained in how quickly the size of the private sector has been increasing in individual countries over time. For some cases, such as Bulgaria and Slovenia, the private sector share in GDP by 1996 was only around 50%, while for others, such as the Czech Republic, Estonia, Hungary and Slovakia, this figure stood at 70% or more.

Has the size of the private sector influenced the differences in income inequality across postsocialist countries and over time? We argue, yes. Privatization is principally related to capital accumulation, and the more extensive the privatization, the greater the opportunities for differentiation among households based on their private sector activities. In general, individuals can garner higher incomes from jobs in the private sector than in the public sector, which creates greater differentiation
at the top of the income distribution. On the other hand, those in the private sector can also lose jobs more easily (and end up among the unemployed poor), which adds to differentiation at the bottom of the income distribution. Milanovic (1999) put forth a similar argument based on individual level income data. We argue that in the aggregate these mechanisms contribute to the following consequence: the greater the size of the private sector, the greater the opportunities for individual differentiation, and the higher the overall income inequality.

Another component of privatization relates to the redistributive role of the state, and its mediation of social outcomes. With the acceptance of market-exchange as the primary economic arrangement, the redistributive role of the state became delegitimized and overall state expenditures in Central and East European countries have decreased substantially. This had consequences for income inequality. As much other research has shown for Western nations, domestic institutions matter significantly for social outcomes. These institutions that encourage an equitable distribution of income include corporatist arrangements, social-democratic parties and other facets of what has generally been termed the welfare state (Esping-Andersen 1990). Labour market institutions play a key role in wage distribution (Western 1997). Studying the case of the United States, for example, Freeman (1993) attributes a substantial inequality upswing to declining unionization and the declining bargaining power of labour, and Alderson and Nielsen (2002) find that those countries where wage setting coordination is absent, and union density and decommodification\(^3\) of labour are low, have significantly higher income inequality (cf. Korpi and Palme 1998). While the socialist systems put equality as a top political priority, the neoliberal reforms more or less widely embraced by postcommunist governments posed great challenges to organized labour and socialist orientations. Union membership figures plummeted, coverage by collective agreements declined, and the overall influence of unions on policy-making significantly weakened (Kubicek 1999, Ost 2000, Crowley 2001). Despite these general trends of declining welfare-state, cross-national differences in labour market organization within the postsocialist region do exist (Cox and Mason 2000, Avdagic 2005) and in some countries states have preserved a greater redistributive capacity than in others. Therefore, we would expect that the greater the level of government expenditures, the lower the overall income inequality.\(^4\)

**Nationalism**

Some observers suggest that the national question was revived after the collapse of communism, because it has been suppressed by the occupation of the region by imperial powers, the Habsburg Monarchy, the Ottoman Empire or Czarist Russia, and after the Second World War, by the communist regimes (Caratan 1997). Others argue that state-socialist systems in fact promoted national consciousness and institutionalized nationhood and nationality as ‘basic cognitive and social categories’ (Brubaker 1996: 8) but that after the fall of communist regimes, postcommunist states had to re-interpret their nationhood and statehood (Zubrzycki 2001). The fall of the Soviet rule could be understood as an impetus to recover the state sovereignty and national independence, at least in countries where communism was externally imposed and kept in check by the Soviet Union (Kornai 1992).

In addition, ‘national’ became very salient for communities from formerly multinational states where the fall of socialism was accompanied by assertions of state sovereignty and independence. In cases of Czechoslovakia, the Soviet Union and Yugoslavia, the collapse of state-socialism coincided with a disintegration of their federal arrangements and establishment of several new states. In these

\(^3\) Decommodification refers to the differing degrees to which individuals in different societies are able, given the same level of total social welfare expenditure, to opt out of the market while maintaining a socially acceptable standard of living (Esping-Andersen 1990, Alderson 1997). The theory stipulates that the higher the decommodification of labor, the lower the inequality.

\(^4\) Unfortunately, reliable overtime data for many more nuanced aspects of the welfare state and social redistribution, including decommodification and unionization, are not yet available for Central and Eastern Europe, so we can only test the influence of a most general indicator, i.e. government expenditures on inequality.
circumstances, ‘at the most fundamental level, a decision [had] to be made as to who ‘we’ are, i.e. a decision on identity, citizenship, and the territorial as well as social and cultural boundaries of the nation-state’ (Offe 1991: 869). Thus, nationalism can be seen as an integral part of the consolidation of an identity of a new state.

Whatever the causes, the fact is that after the end of the Communist Party rule, the world witnessed a proliferation of national movements and national sentiments in postcommunist Europe (Calhoun 1993, Cohen 1999). Nationalism was used as a tool of political mobilization and support so that in a number of countries, ‘the rhetoric and symbols with the greatest electoral appeal were national(ist) ones’ (Verdery 1998: 294). Nation-oriented idioms had a prominent place in the cultural repertoires of actors making sense of postcommunist transformations. They were ‘widely available and resonant as a category of social vision and division’ (Brubaker 1996: 21) in postcommunist Europe.

More specifically, Brubaker (1996) distinguishes between three types of nationalism, which have interacted to destabilize the new or restructured states in post 1989 Europe. Looming largest is the ‘nationalism of the nationalizing state’, aiming to cast the state as an ethnically homogenous nation-state, a state of and for a particular nation, ‘to make the state what is properly and legitimately destined to be, by promoting the language, culture, demographic position, economic flourishing, or political hegemony of the nominally state-bearing nation’ (Brubaker 1996: 16). The ‘nationalism of the national minority’ seeks to forestall these nationalizing policies and practices, to do away with discrimination and exclusion, to pursue autonomy and sometimes even to push for secession. The third kind is the ‘nationalism of the external homeland’ that sees itself responsible for the welfare and fate of the non-citizen co-ethnic minority in another state and intervenes on its behalf. This triadic, conflict-ridden configuration of nationalisms in postcommunism is considered quite different from the problems of national integration in older European and post-colonial states in Africa and Asia (Smooha and Jarve 2005).

In particular, it is ethnonationalism that may present a basis for social exclusion of ethnic minorities in postsocialism because ‘postcommunist governments [may] take the view that they do not represent citizens but the nation’ (Schopfli 1996: 153). Moreover, as Smooha (2001: 6-7) asserts ‘in these states, there is a strong tendency for indigenous minorities to be non-assimilating, for majorities to be intolerant of cultural diversity and suspicious of claims for special rights based on ethnicity.’ All this suggests that in light of nationalism that marked the political scene in Central and Eastern Europe after the fall of communist regimes, we can expect that countries with substantial ethnic minority populations, in particular the Baltic states with large Russian minorities, will have larger segments of their populations that will be subject to some form of social exclusion, ranging from subjections to prejudice in everyday interactions, employment discrimination, to even denial of automatic citizenship, as was the case of Russians in Estonia and Latvia (Kirch 1997). As a consequence, this will lead to impoverishment of ethnic minorities and overall greater levels of income inequality in countries with more sizable ethnic populations.5

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5 When we emphasize the importance of the size of ethnic minority population for overall inequality, we do not mean to imply that less sizable minorities in other countries do not suffer from poverty. Indeed, especially Roma may have become the, so called, “underclass” throughout Central and Eastern Europe (Emigh, Fodor and Szélényi 2001: 3). Nevertheless, in our macro-level study we focus on the aggregate effects of this phenomenon for overall income inequality, and thus hypothesize that the larger the minority, the more likely that this will have aggregate level effects on overall inequality in a country. We should also note that while we attribute this phenomenon to the prevalence of nationalist sentiments, it may also be the case that for the particular ethnicity of Roma, social exclusion may be due also to processes of racialization, not solely nationalism, since Roma are often not only treated as a different ethnic but also as a different racial category (Emigh, Fodor and Szélényi 2001: 6). At the same time, it is important to note that based on our variable operationalization (in light of difficulties associated with quantification of largely qualitative phenomena of which we are aware and we dutifully acknowledge), the countries with the largest percent of ethnic populations in our sample are Estonia, Latvia and Lithuania, where it is mostly Russians and not Roma that account for the effects we estimate.
Next to domestic processes, postsocialist transformations were greatly impacted also by forces that were beginning to change the character of the world society at the global scale. In fact, postsocialist transformations and intensification of globalization happened simultaneously, and the two processes impacted each other. The rise in foreign direct investment after the 1980s, considered as one of the key indicators of the intensity of global interactions (Guillén 2001), and as ‘one of the most stable and economically important of the international capital flows’ (Jensen 2006: 23) has been spectacular. The collapse of communist regimes, and liberalization of Central and Eastern Europe provided plenty of opportunities for foreign investors. To emphasize the importance of the simultaneity of the two processes, some observers go as far as to consider the penetration of foreign capital after the collapse of state socialism as ‘the most momentous structural force in the transformation process’ (Böröcz 2001: 1163).

How about the relationship between foreign capital penetration and inequality? While analysts overwhelmingly agree that national-level outcomes are affected by the integration of individual countries into the network of global connections, the findings about the influence of foreign capital on inequality are quite disparate. Those approaching the problem from the world-systems / dependency perspectives suggest that foreign capital penetration has negative consequences. In particular, it is found to contort the composition of a nation’s forces of production to rely on low wage and unskilled labour to produce goods at low levels of technological sophistication. This creates few opportunities for beneficial ‘spill-over’ effects such as research and development activities, industrial services or differentiation (Hirschman 1958; Galtung 1971; Bornschier and Ballmer-Cao 1979; Bornschier and Chase-Dunn 1985). Furthermore, heavy dependence on foreign capital promotes an uneven distribution of capital intensity across sectors and geographical regions in the receiver economy. This concentrates income in (typically more productive) outward oriented sectors, increasing overall income inequality (Frank 1967, Stack 1980). In addition, foreign capital penetration constrains the development of bureaucratic skills necessary for a highly functioning business sector. This maintains inequality because it delimits the production of human capital within the receiver economy (Bornschier and Ballmer-Cao 1979; Evans and Timberlake 1980; Bornschier and Chase-Dunn 1985). Scholars also argue that foreign capital penetration encourages inequality by influencing the distributive capacity of nation-states. Increases in global capital flows tend to produce a ‘race to the bottom’ in which governments in developing nations seek to attract foreign investment by implementing policies that lower the bargaining power of labour, eliminate provisions that encourage full employment and wage enhancement, such as job training and local purchasing requirements, and thus remove institutional constraints on rising income inequality (McMichael 1996; DeMartino 1998; Ranney 1998; Beer and Boswell 2002).

While much research in the world systems / dependency literature reports the deleterious effects of foreign capital penetration on economic growth and income equality or host nations, earlier studies have also been critiqued for faulty interpretations. Firebaugh (1992) demonstrated that negative growth effects found for foreign investment stock were an artefact of introducing both foreign direct investment (FDI) flow (the yearly inflow) and FDI stock (the cumulated inflow) in the same equation, which resulted in spurious ‘denominator effects.’ Firebaugh showed that the correct interpretation for the findings from these studies is that the foreign investment rate (the ratio of flow/stock) benefits developing countries, but that it doesn’t benefit them as much as domestic investment. However, some recent studies which took into account Firebaugh’s critique, still find negative effects of long-term FDI on economic growth and income inequality (Dixon and Boswell 1996; Kentor 1998; Alderson and Nielsen 1999). In contrast, De Soysa and O’Neal (1999) offer a reanalysis of Firebaugh’s (1992; 1996) and Dixon and Boswell’s (1996) studies, and largely replicate Firebaugh’s findings that foreign investment has benefits for host economies. The explanation for this positive effect of FDI rests on the assumptions of neoclassical development economics that growth in the stock of capital is the primary driver of economic expansion (Solow 1956, Swan 1956, Barro and Sala-i-Martin 1995). For underdeveloped countries with dearth of domestic capital, it is the inflow of foreign investment that
would increase the stock of capital and stimulate domestic economic growth (Balasubramanyam, Salisu and Sapsford 1999). Next to propelling the capital accumulation, the presence of MNCs would also have a variety of spillover effects, including the creation of new jobs, upgrading of skills, and the transfer of technological and managerial know-how to domestic firms (Markusen 1995, Blomstrom and Kokko 1997, Markusen and Venables 1999, Javorcik 2004). Through these general spill-over effects, it would contribute to lower income inequality.

How can we adapt these various predictions for the case of Central and Eastern Europe during the market transition period? Should we expect that FDI inflow will have a positive or negative impact on income inequality? First of all, we need to recognize that FDI will be strongly related to privatization processes (Bandelj 2003). Namely, no FDI could occur without private property rights, as FDI refers to private direct investment in business to business transactions, and hence occurs between private parties (or private investors and the postsocialist states in case of direct sales of state-assets to foreigners). Therefore, all substantial FDI into Central and Eastern Europe has occurred after 1989, and its consequences can only be evaluated for a short term since then. This makes it difficult to anticipate substantial positive spillover effects of FDI for host economy, which the economics literature stipulates. Simply, the period under investigation is only the initial 10-year inflow of FDI into the region, which is a very short time span. Rather, we propose that in this short term FDI in Central and Eastern Europe has a negative effect on equality by encouraging, like privatization, greater differentiation among households. One way this happens is because FDI in postsocialist Europe has entered mostly the sectors of trade and business activities and financial services (UNCTAD 2006). As such, it contributes to the growing sector of high wage employment rather than depresses the lower strata of the income distribution, as was hypothesized by dependency scholars for Third World countries. Organizational level studies show that companies privatized with foreign ownership in Central and Eastern Europe are, on average, more productive than those privatized by domestically-owned firms (summarized in Megginson and Netter 2001), hence it is likely that management salaries are also higher. Indeed, in his study of firm restructuring in several postsocialist countries, King (2001) finds that the wealth and prestige that go along with being a manager in a foreign multinational are quite substantial. Another way in which FDI contributes to greater income differentiation is by benefiting members of the budding postsocialist elite, who acquired shares in postsocialist enterprises through property restitution, voucher or MEBO privatization schemes, and were subsequently able to sell these property stakes at a significantly higher price to foreign investors, assuring themselves greater rewards than those who could not/did not take advantage of these privatization-related opportunities. Based on these mechanisms through which FDI contributes to greater income differentiation, we expect that during the first decade of transition, FDI inflow will be positively related to subsequent income inequality.

Data and Methods

Sample

We use longitudinal data on ten post-socialist countries that can be considered the most advanced in the transition process, since they have either joined the European Union as of May 2004 or are expected to join in 2007. The sample includes Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia, and the time period from 1990 to 2001. Our dataset has an unbalanced panel structure, with varying numbers of observations over time for different countries. (See appendix A for the list of country/year observations.) This is a commonly used strategy in inequality studies and necessitates the estimation of models with fixed-effects or random-effects, rather than ordinary least squares (OLS) to correct for unmeasured country specific heterogeneity. (See Alderson and Nielsen (1999, 2002) for a detailed discussion on these methods for the unbalanced panel data.) To present models which allow for comparison across different specifications, we use a consistent sample with 75 observations.
**Dependent Variable**

The dependent variable in this analysis is the Gini index for each country/year observation. Its detailed description is provided in Table 1. The data come from the TRANSMONEE dataset on Central and Eastern Europe and refer to household earnings. In order to establish causal priority of predictors to the outcome, we lag the dependent variable. This means that all predictors are measured at time $t$ and the outcome is measured at time $t+1$.

**Independent Variables**

The independent variables include the predictors derived from the two theoretical models presented: Kuznets’ theory of development and inequality, on the one hand, and our social-institutional explanation of income inequality, on the other hand. The list of all the independent variables used in the analysis with operationalizations and descriptive statistics is included in Table 1. Correlation coefficients are provided in Appendix B.

**Table 1. Variables used in the Analysis of Income Inequality in Postsocialist Countries**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Mean (S.D)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable</strong></td>
<td>Gini coefficients expressed in percentage terms, measuring the dispersion of income between the richest and the poorest. The higher the score, the higher the dispersion/inequality. Data come from Transmonee database, which is the only one that includes all countries in our sample. Data are primarily derived from household earnings, interpolated from group data for monthly earnings, with bonuses, for full-time employees as reported by employers. Some data refer to household income. In these cases, it is based on interpolated distributions from grouped data from household budget surveys.</td>
<td>31.175 (4.812)</td>
</tr>
<tr>
<td>Gini Index</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Economic Development</strong></td>
<td>Gross Domestic Product Per Capita ($ thousand), logged for skewness with a base 10 log transformation</td>
<td>3782.83 (2539.41)</td>
</tr>
<tr>
<td>GDP</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Development Mechanisms</strong></td>
<td>This is the percentage of the labor force that works in the agricultural sector.</td>
<td>.182 (.104)</td>
</tr>
<tr>
<td>Percent of the Labor Force in Agriculture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>This is the percent share of registered unemployed people as a share of labor force</td>
<td>10.802 (4.328)</td>
</tr>
<tr>
<td>Sector Dualism</td>
<td>This measure captures the average difference in income between the agricultural and non-agricultural sectors of the economy. It is measured as the absolute value of the difference between the percentage of the labor force in agriculture, and the proportion of GDP in agriculture.</td>
<td>.091 (.075)</td>
</tr>
</tbody>
</table>

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6 TRANSMONEE dataset is the largest East European dataset with Gini indices across countries and over time. Researchers have noted that there are differences in measurement across datasets (for review see Heyns 2005), so using a single source that maximizes data points because it includes all our countries of interest for the longest period of time available is most appropriate. Nevertheless, this data set is not ideal in a sense that there are still some variations in how data are compiled across countries. Acknowledging these limitations, we suggest that the robustness of our findings be verified when better data become available.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Mean</th>
<th>(S.D)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(Development Mechanisms, cont.’d)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary School Enrollment</td>
<td>Total upper secondary education enrolment</td>
<td>78.596</td>
<td>(11.537)</td>
</tr>
<tr>
<td></td>
<td>Upper secondary education: offers educational programs which require the completion of basic education for admission or a combination of education and vocational and technical experience. This is measured as the ratio of enrolled students to the age relevant population (15-18), in percent.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Rate of Population Increase</td>
<td>Birth rate minus death rate, per thousand population; excludes changes due to migration</td>
<td>-1.910</td>
<td>(2.613)</td>
</tr>
<tr>
<td><strong>Privatization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Private Sector</td>
<td>Percent of GDP accounted for by Private Sector. When this variable is included together with the time trend, we corrected for time’s indirect effect on outcome via the size of private sector by regressing the size of private sector variable on the time variable and using the unstandardized residuals in place of the original size of private sector variable (i.e. orthogonalization, Draper and Smith 1981).</td>
<td>56.263</td>
<td>(18.702)</td>
</tr>
<tr>
<td></td>
<td>Government expenditure as % of GDP includes salaries of public servants, purchase of weapons for the military, any investment expenditure by a government into public goods and transfer payments, such as social security or unemployment benefits. When this variable is included together with sector dualism, we corrected for its indirect effect on the outcome via dualism by regressing dualism on government expenditure and using the unstandardized residuals in place of the original dualism variable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Expenditure</td>
<td></td>
<td>42.621</td>
<td>(7.346)</td>
</tr>
<tr>
<td><strong>Ethnonationalism</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Composition</td>
<td>Percent share of ethnic populations in a country. Coded as 2 if more than 20%, as 1 if between 10-20%, and as 0 if less than 10%.</td>
<td>.912</td>
<td>(.770)</td>
</tr>
<tr>
<td><strong>Globalization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Direct Investment Inflow per capita</td>
<td>The size of FDI inflow into the country i at year t. Measured as the ratio of FDI inflows ($) to population size, and logged for skewness with a base 10 log transformation. When this variable is include together with the time trend, we corrected for the time’s indirect effect on the outcome via FDI by regressing the FDI variable on the time variable and using the unstandardized residuals in place of the original FDI variable.</td>
<td>111.976</td>
<td>(108.156)</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini in 1990</td>
<td>Gini index at the beginning of transition to take into account differences in country initial conditions. See explanation for Gini index above. (When this variable is included together with ethnic composition, we corrected for the indirect effect of ethnic composition on the outcome via initial Gini by regressing initial Gini on ethnic composition and using the unstandardized residuals in place of the original initial Gini variable.</td>
<td>21.904</td>
<td>(3.332)</td>
</tr>
<tr>
<td>Time trend</td>
<td>A time trend, where 1990 = 1.</td>
<td>8.373</td>
<td>(4.812)</td>
</tr>
</tbody>
</table>

**Note:** See Appendix A for data structure and sources
Pooled Cross Sectional Time Series Analysis

To investigate the determinants of inequality across countries and overtime, we need to pool the individual countries’ time series. Pooling creates correlations in the data due to country- and time-specific effects. Such clustering would yield coefficient standard errors smaller than those obtained for independent data. One standard econometric approach for dealing with this problem is to estimate a random effects or a fixed effects regression model (Amemiya 1985, Halaby 2004; for applications see Alderson and Nielsen 1999, 2002, Gustafsson and Johansson 1999). For methodological and substantive reasons most our models report random effects estimates. First, the fixed effects, which are equivalent to applying OLS regression to the data and including a series of country dummies, may be interpreted substantively as giving up all the variance associated with between-country variation (which would be captured with country dummies). Second, the fixed effects model cannot be estimated for time invariant conditions, such as the initial Gini score (to account for differences in initial conditions across countries at the start of the period we investigate) and ethnic composition variables, which we want to include in our models. Third, Tuma and Hannan (1984) showed that the random effects models are asymptotically more efficient relative to the fixed effects. Nevertheless, fixed effects provide a very stringent test of the hypotheses because they account for any possibly omitted relevant country characteristic and those that cannot be adequately measured. Therefore, in order to test the robustness of our findings, we also present several fixed effects models. (Necessarily time invariant factors have to be excluded in those models.)

We analyzed the data using Stata 8.0. In addition, we used SYSTAT statistical program to test for potential outliers and influential cases. None of the individual cases was unduly influential so we did not exclude any observations and ran all the models with a consistent sample of 75 observations.

Empirical Findings for Differences in Income Inequality in Postsocialism (1990-2001)

Kuznets’ Development Model

We began this paper with an observation that income inequality has increased in all postsocialist Central and East European countries. Models 1 and 2 of Table 2, which simply regress inequality on a time trend7, provide quantitative evidence for this observation. As expected, there is a strong significant positive correlation between income inequality and time. However, much of the variance remains unexplained and without further investigation we cannot determine what actually accounts for this upward trend.

The acclaimed Kuznets’ theory linked inequality trends to development. However, as explicated in the previous sections, we were suspect that this explanation has relevance for the specific case of postsocialism, where increases in inequality cannot be related to increased industrialization and urbanization, since by 1989 these societies were already industrialized and urbanized. Indeed, as Models 3-6 (Table 2) show, GDP/capita, as the most commonly used indicator of economic development is poorly related to Gini values for this sample. Although we tried various models,

---

7 Including a time trend in all the models also de-trends the data and controls for dependencies due to the time series data structure. Like Alderson and Nielsen (2002), we opted not to estimate an AR(1) model – an autoregressive error structure of the first order. Both the time trend and random effects capture the major mechanisms causing correlation of the errors. The short length of the time series and unbalanced structure of the data are not suitable for the estimation of the AR(1), which would, should we followed the possible Cochrane-Orcutt method of AR(1) estimation, also reduce our scarce degrees of freedom by excluding the first period of observation for each country. Because of the unbalanced panel structure, small size and very short time series, we cannot apply the Durbin Watson, Breusch-Godfrey or Baltagi-Li Lagrange Multiplier test for serial correlation. However, ancillary plots of residuals and regressions of residuals on the time variable and fitted values all substantiated that there is no structure in the residuals. Moreover, we fit a linear time trend because despite the somewhat non-linear country representations of trends as seen in Figure 2, upon tests it was the linear trend that fitted best to the whole sample.
random-effects and fixed-effects, and linear GDP relationship and a curvi-linear trend (GDP included with GDP-squared to test a hyperbolic function), none of the effects are statistically significant. This is further substantiated by examining in detail the development mechanisms that should underlie the relationship between GDP and Gini, as proposed by Kuznets. (Since these development mechanisms are hypothesized to, in sum, explain the general link between economic development and inequality, it would be incorrect to include them in a model together with GDP.)

Table 2: Test of Kuznets’ Internal Development Model on Income Inequality: Unstandardized Coefficients from the Random-Effects and Fixed-Effects Regression

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 7</th>
<th>Model 8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ECONOMIC DEVELOPMENT</strong></td>
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<tr>
<td>GDP/capita (log)</td>
<td>-7.260</td>
<td>-8.247</td>
<td>-64.484</td>
<td>64.031</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(-1.88)</td>
<td>(-0.96)</td>
<td>(-0.78)</td>
<td>(0.53)</td>
<td></td>
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<tr>
<td>GDP/capita (log) - squared</td>
<td>8.086</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>(0.70)</td>
<td></td>
<td></td>
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<tr>
<td><strong>DEVELOPMENT MECHANISMS</strong></td>
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<tr>
<td>Labor in agriculture</td>
<td>6.401</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(0.51)</td>
<td></td>
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</tr>
<tr>
<td>Unemployment</td>
<td>-0.048</td>
<td>-0.064</td>
<td></td>
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<tr>
<td></td>
<td>(-0.50)</td>
<td>(-0.93)</td>
<td></td>
<td></td>
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<tr>
<td>Sector dualism</td>
<td>31.269**</td>
<td>36.938*</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>(2.47)</td>
<td>(2.17)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Education level</td>
<td>-0.016</td>
<td>-0.005</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>(-0.24)</td>
<td>(-0.08)</td>
<td></td>
<td></td>
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<tr>
<td>Population growth</td>
<td>-0.637*</td>
<td>-0.635</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>(-2.25)</td>
<td>(1.91)</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>** CONTROLS**</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini in 1990&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.673*</td>
<td>--</td>
<td>0.750**</td>
<td>--</td>
<td></td>
<td>0.778**</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.14)</td>
<td></td>
<td>(2.36)</td>
<td></td>
<td></td>
<td>(2.49)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time trend</td>
<td>0.756***</td>
<td>0.762***</td>
<td>0.812***</td>
<td>0.827***</td>
<td>0.802***</td>
<td>0.848***</td>
<td>.451**</td>
<td>0.416</td>
</tr>
<tr>
<td></td>
<td>(7.15)</td>
<td>(6.37)</td>
<td>(7.44)</td>
<td>(5.39)</td>
<td>(7.29)</td>
<td>(5.02)</td>
<td>(2.69)</td>
<td>(1.90)</td>
</tr>
<tr>
<td>Fixed effects&lt;sup&gt;b&lt;/sup&gt;</td>
<td>included</td>
<td>included</td>
<td>included</td>
<td>included</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(16.00)</td>
<td>(20.85)</td>
<td>(2.37)</td>
<td>(1.67)</td>
<td>(0.94)</td>
<td>(-0.32)</td>
<td>(0.75)</td>
<td>(3.88)</td>
</tr>
<tr>
<td>R2</td>
<td>0.211</td>
<td>0.761</td>
<td>0.490</td>
<td>0.764</td>
<td>0.527</td>
<td>0.765</td>
<td>0.610</td>
<td>0.817</td>
</tr>
</tbody>
</table>

<sup>a</sup> Time-invariant variable cannot be included in the fixed effects specification  
<sup>b</sup> Fixed effects means OLS with country dummies and robust errors, other specifications are random effects GLS  
* p < .05  ** p < .01  *** p < .001  (two-tailed tests),  
t-values in parentheses, N=75

Models 7 and 8 (Table 2) estimate the role of economic development mechanisms: the size of the agricultural sector, sector dualism, unemployment, population growth and spread of education. As we anticipated, these factors are poor predictors of differences in income inequality across postsocialist countries between 1990 and 001. This is not surprising because no major shifts out of the agricultural sector have occurred upon transition, and secondary educational attainment has been and stayed quite
high across these countries. Demographically, societies have experienced population declines, rather than population growth, with no substantial effect on overall income inequality. Even unemployment does not seem to be significantly related to Gini, probably due to the fact that all postsocialist societies have faced surges in unemployment with market-transition (Nesporova 2002), and a commonality cannot explain differences. The only factor that has a robust significant relationship to Gini in Table 2 is sector dualism. To recap, sector dualism measures the share of employment in agriculture to the contribution of the agricultural sector to overall GDP. Our results indicate that the greater this share, the greater the subsequent inequality. However, since in none of the countries studied major shifts into the agricultural sector have occurred with the transition period (in most countries this share remains relatively stable over time), it seems that the more plausible explanation of this effect is the contraction of the contribution of the agricultural sector to overall GDP, which reduces the denominator in the dualism ratio and contributes to higher values on the dualism score. This can happen on account of the absolute or relative decreased productivity of the agricultural sector compared to the non-agricultural sector. We propose that in postsocialist Europe the effect is a joint one. Other studies provide evidence of struggling agricultural sectors, in absolute terms. For instance, Greif (1998) reports that the Eastern European agriculture faces a ‘subsistence crisis’ and Maddock (1993) and Hristova and Maddock (1995) provide case studies of this for Lithuania and Bulgaria. In addition, consistent with our emphasis that privatization is an engine behind postsocialist differentiation, we posit that those in the non-agricultural sectors have garnered greater rewards from privatization during market transition, which accounts for greater relative differences between these two segments of society.

Scholars of postsocialist transformations have vigorously debated the question of who wins and who loses during market transition. Victor Nee (1989) provided the first statement to frame this ‘market transition’ debate, suggesting that in a market-based system individuals would reap economic rewards based on their human capital as opposed to political capital, which provided an advantage under the communist regimes. Hence, based on his study of China, Nee concluded that market transition brings little returns to communist political elites. Nevertheless, several subsequent studies of stratification in Central and Eastern Europe and Russia found that the elite of the old regime were able to convert their political capital into an economic advantage and, in fact, benefited from market transition (Staniszkis 1991, Róna-Tas 1994, Szelényi and Kostello 1996, Gerber and Hout 1998, Gerber 2002).

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8 Although secondary school enrolment use we is the most common education measure in inequality studies, it is likely that for contexts with high overall educational attainment, a different measure would have more empirical utility. Indeed, Jacobs (1985) argued that for advanced industrial societies, the effect of education on inequality may be better captured by educational heterogeneity rather than average attainment. Heterogeneity captures the diversity or dispersion of educational attainment, and greater dispersion is expected to contribute to greater dispersion of income levels (for application, see Nielsen and Alderson 1997). Unfortunately the data for constructing the heterogeneity measure for the countries of Central and Eastern Europe are not available, but future research should consider this possibility. Moreover, Crenshaw and Ameen (1994) argued that the effect of educational attainment on inequality shows a curvilinear relationship, because in postindustrial regimes at high levels of educational expansion, education becomes positively associated with inequality. We did not find support for this conjecture for our set of countries.

9 In fact, it seems that greater population declines are associated with greater inequality. While the relationship is not robust in the fixed effects model, and we don’t have the means to investigate this conjecture further, it is possible that population declines reflect, like in Western Europe, the second demographic transition, characterized by the decline in fertility as well as changes in family formation and living arrangements. The analysts link these shifts to “ideational and cultural change” (Sobotka et al. 2003: 251, see also Van de Kaa 1987: 6-7, Lesthaeghe 1995: 21-22). If so, then on some level the postsocialist focus away from collective interests and on individualization and self-actualization (Rabusic 2001), reflected in low fertility rates (Lesthaeghe and Surkyn 2002), may encourage differentiation: families with more children stay behind, while those who don’t have children, or have them later, can accumulate greater household incomes. While data availability and level of analysis don’t allow us to rigorously test these conjectures, we encourage future research to do so.
Regarding the consequences of transition for the agricultural sector in particular, Szelényi (1988) proposed the interrupted embourgeoisement theory. Before major changes in the region happened, Szelényi argued that the new economic elite, reclaiming its position from the communist cadres, would emerge from the bottom strata of society and would be composed of those individuals whose families held private land and had market-based experience before communism. Therefore, we should see rising social mobility of the agricultural sector in postsocialism. In contrast, Róna-Tas (1994: 50-64) found that ‘household farming is a modest source of social mobility while the other two forms of private enterprise [noncorporate enterprise and corporate enterprise] both keep people on the top… This has an effect, ceteris paribus, of increasing income inequalities.’ While Róna-Tas examined only one postsocialist country over the first couple of years of transition, our cross-national longitudinal study confirms that this finding holds across the region. Inequalities have increased in postsocialism, and the agricultural sector has been largely left behind other economic sectors.

We think that one of the important explanations for this increased differentiation between agricultural and non-agricultural sectors lies in the link between stratification and privatization processes. Socialist farmers seem to have benefited less from privatization than those who worked in state-socialist firms. Whether, for example, states implemented voucher or management employee buyout privatization strategies, those in non-agriculture sectors had greater access to information about investment opportunities in which to invest their vouchers, or they received ownership directly through management and employee buyouts. In addition, peasants and agricultural labourers were on average significantly less likely to be Communist Party members (Hanley 2003; Titma, Tooding and Tuma 2004), so they also had less political and social capital to turn into an economic advantage once the transition started. On average, this implies that countries with larger (and not as productive) agricultural sectors, such as Bulgaria, Romania or Poland, have experienced a less even distribution of rewards during privatization compared to countries with smaller (and more productive) agricultural sectors, such as Czech Republic, Hungary and Slovenia. All this suggests that post-socialist market transition created increasingly poor agricultural sectors which anchor incomes at the bottom of the distribution while rewards stagnate or rise in other sectors. This fuels overall income inequality.

Social Foundations of Postsocialist Inequality: Privatization, Nationalism and Globalization

Industrialization and the transition to capitalism in non-communist states were accompanied by unequal capital accumulation. Kuznets argued that this was the primary reason for increasing inequality marked by the ascending component of the inverted-U curve. On the other hand, socialism’s particularity is that it abolished private property and prevented capital accumulation (and thus held a cap on rising inequality). Upon the collapse of communist regimes, property rights needed to be re-established and collectively owned assets needed to be transferred into the hands of private individuals and firms to make market exchange possible. This was achieved through privatization. Although substantively different, privatization and industrialization seem to have an equivalent effect on social differentiation. Like capitalist accumulation during industrialization, postsocialist privatization ultimately leads to greater income inequality. Models presented in Table 3 assess this possibility. A significant positive association between the share of the private sector’s contribution to GDP and Gini indices suggests that privatization in Central and Eastern Europe indeed stimulated increases in income inequality.10 Only certain segments of the population benefited from the possibilities for income accumulation that opened-up at the onset of market transition. Because the increase in the private sector’s contribution to the economy in postsocialism is accompanied by the dwindling of the

10 We also tried to test whether the different kinds of privatization methods had an effect on income inequality (e.g. mass privatization, or using MEBOs rather than direct sales), but none of these relationships were statistically significant. This is probably due to the very low degrees of freedom. In any case, fixed effects models control for any differentiation due to privatization strategies across countries that we may not be able to measure directly.
public sector, it is possible that the size of the private sector effect in our models also captures the impact of decreased state protections that accompanied market transition (Standing 1996).

Table 3: Social Foundations of Income Inequality in Postsocialism: Unstandardized Coefficients from the Random-Effects and Fixed-Effects Regression

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
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<tr>
<td>Size of private sector</td>
<td>1.469***</td>
<td>1.496***</td>
<td>1.475***</td>
<td>0.515</td>
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<tr>
<td></td>
<td>(4.03)</td>
<td>(4.08)</td>
<td>(3.63)</td>
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<td>Sector dualism</td>
<td>2.829***</td>
<td>2.817***</td>
<td>3.153***</td>
<td>2.731***</td>
<td>2.635***</td>
<td>2.856***</td>
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<tr>
<td></td>
<td>(4.37)</td>
<td>(4.29)</td>
<td>(3.75)</td>
<td>(3.98)</td>
<td>(4.06)</td>
<td>(3.28)</td>
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<tr>
<td>Government expenditures</td>
<td>-1.351**</td>
<td>-1.266**</td>
<td>-1.388**</td>
<td>-1.206*</td>
<td>-1.195*</td>
<td>-1.292**</td>
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<tr>
<td></td>
<td>(-2.83)</td>
<td>(-2.57)</td>
<td>(-2.87)</td>
<td>(-2.41)</td>
<td>(-2.44)</td>
<td>(-2.66)</td>
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<td>Ethnic composition</td>
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<td>--</td>
<td>2.630*</td>
<td>2.627*</td>
<td>--</td>
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<tr>
<td></td>
<td>(2.33)</td>
<td></td>
<td>(2.00)</td>
<td>(2.34)</td>
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<tr>
<td><strong>GLOBALIZATION</strong></td>
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<tr>
<td>Inward FDI flow/capita (log)</td>
<td>1.507***</td>
<td>1.500***</td>
<td>1.458***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.66)</td>
<td>(3.72)</td>
<td>(3.60)</td>
<td></td>
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<tr>
<td>Gini in 1990</td>
<td>1.050***</td>
<td>2.419*</td>
<td>--</td>
<td>2.019</td>
<td>1.987</td>
<td>--</td>
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<td></td>
<td>(3.25)</td>
<td>(2.02)</td>
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<td>(1.38)</td>
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<td>Time</td>
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<td>0.474</td>
<td>0.324</td>
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<td></td>
<td>(1.50)</td>
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<td>(0.84)</td>
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<td>(23.40)</td>
<td>(27.65)</td>
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<tr>
<td>R2</td>
<td>0.475</td>
<td>0.544</td>
<td>0.814</td>
<td>0.550</td>
<td>0.558</td>
<td>0.817</td>
</tr>
</tbody>
</table>

* Time-invariant variable cannot be included in the fixed effects specification  
** Fixed effects means OLS with country dummies and robust errors, other specifications are random effects GLS  
* p < .05  ** p < .01  *** p < .001  (two-tailed tests), t-values in parentheses, N=75

We assessed this role of postsocialist states on inequality more directly by including a variable for overall government expenditures. Its effect is consistently negative, as hypothesized and in line with much literature that argues for the importance of institutions on social outcomes. We find evidence that social inequality is lower in cases where government expenditures, including social transfers and provision of public goods, is higher. Data limitations unfortunately do not allow us to test the role of particular aspects of the so-called welfare state on inequality, which remains a task for future research.

Next to the institutional factors, we also highlighted the role of socio-cultural conditions on income inequality, and proposed that some of the differentiation across societies in the extent of their inequality increases have to do with the disadvantages suffered by ethnic minorities in postsocialism. In societies where nationalist sentiments are wide-spread, social exclusion of the Russian minorities in Estonia, Latvia and Lithuania and Roma elsewhere seem to have repercussions for overall patterns of inequality in those countries. This is reflected in the results reported in Models 2, 4 and 5 of Table 3, where the significant positive effect of ethnic composition means that the more sizable the ethnic minority population, the higher the income inequality in that country. It is important to note that in addition to direct effects of prejudice and discrimination due to ethnonationalism, the economic disadvantage, especially for the Roma minority, comes also because of its indirect role in the social
reproduction of inequality, which results in lower education levels and higher fertility rates for Roma, chaining them in the bottom income strata.

Foreign Capital Penetration and Inequality

Foreign direct investment was restricted in Central and Eastern Europe during socialism, but after the fall of communist regimes, as part and parcel of market transition, these countries more or less widely opened their borders to foreign capital. Could more or less extensive FDI inflow into Central and East European countries be one of the reasons for differences in income inequality across these states? Models 4, 5 and 6 of Table 3 test this proposition. The positive and statistically significant coefficients for the FDI inflow variable suggests that foreign capital penetration is indeed associated with greater subsequent income inequality in the initial ten years of market transition. What is interesting, however, is that this effect largely replaces the effect of the size of private sector on inequality. This is not surprising when we notice that size of private sector is strongly correlated with FDI inflow, suggesting that most of the FDI into the region in the first decade after 1989 is privatization related (cf. Bandelj 2003).

But the positive effect of FDI on postsocialist inequality may not rest on the same causal mechanisms that are posited by the dependency and world-system theories. We should acknowledge that the world systems perspective was developed to explain the influence of the global economy on former colonies. These colonies on the periphery of the world system met the needs of advanced industrial countries mostly with agriculture and natural resources. Hence, they remained ‘underdeveloped,’ with little industrial infrastructure until the later part of the 20th century. On the other hand, one of the core missions of the communist regimes was heavy industrialization with a goal to surpass the productivity of capitalist states (Kornai 1992, Róna-Tas 1997). Therefore, a great deal of energy was spent building up the industrial capacities of the socialist states. As a result, these countries were more industrially advanced than a prototypical underdeveloped country upon the collapse of the communist regimes and onset of economic liberalization and global integration. Thus, the effects of foreign investment on inequality in Central and Eastern Europe are likely to rest on different causal mechanisms than those which drive inequalities in the developing countries of the Third World.

In particular, FDI into Central and Eastern Europe is not primarily resource extracting, as most of it flows into trade and financial and business services, rather than manufacturing (UNCTAD 2006). And while foreign investors may be motivated by lower labour costs, they do not aim to primarily relying on unskilled labour, but want to take advantage of comparatively well skilled/educated postsocialist workforce (Estrin, Hughes and Todd 1997). Most importantly, the effect of FDI on inequality is shown in a very short term of only ten years (while even for the third world countries the negative effect of FDI on inequality is most robust in the long-run). As we have argued earlier, we believe that the fact that we measure the first initial years of FDI inflow into the region undergoing privatization is crucial for our understanding of these trends. In this context, FDI adds to postsocialist social differentiation at the top of the income distribution, either because foreign owned corporations provide higher income-earning opportunities or because they buy property stakes from the budding postsocialist elite who acquired them at small costs through different privatization schemes and sold them later for a significantly higher price to foreign owners. Hence, in the short term FDI inflow into Central and Eastern Europe contributes to higher income inequality.

Nevertheless, it is uncertain whether this effect of FDI on inequality will continue in the longer term. If positive spillovers of FDI on host economy eventually materialize, as the economics literature stipulates, then the negative effect should diminish, or even reverse, in the long-run. However, if

11 Collinearity between these two variables is substantial, as is indicated by a higher R2 when size of private sector is removed from the model than when it is included. Hence, Models 5 and 6 do not include the size of private sector variable.
positive benefits of incoming foreign investment remain restricted to only upper segments of the population, then FDI’s negative effect on equality will remain. Robust tests of these conjectures can only be made a few more decades into the future but this does not diminish the importance of our finding that under particular socio-economic conditions of postsocialist market-transition, short-term FDI increases income inequality.

Discussion and Conclusion

Socialist Central and East European states represented relatively egalitarian and economically developed societies. The collapse of communist regimes left them suddenly exposed to the pressures of marketization and globalization. Since 1989, income inequality in postsocialism rose significantly but not uniformly across all Central and East European states. How to explain these cross-national differences? We tested the heterodox Kuznets’ theory of inequality and a competing explanation, which focused on the social foundations of income inequality trends.

Our empirical findings from random-effects and fixed-effects regression models suggest that differences in income inequality after the end of communism in Central and Eastern Europe have little to do with the economic development mechanisms stipulated to underlie inequality trends by the well-accepted Kuznets’ theory. Rather, in the first decade after 1989, income inequality is principally influenced by the processes of privatization, whereby private sector expands, foreign investment increases and state redistribution decreases, as well as social exclusion of ethnic minorities. That is, those countries which have reduced the redistributive role of the state more substantially and have privatized to a greater extent (and mostly by encouraging foreign investment and/or disadvantaging the agricultural sector), have experienced greater increases in income inequality in the postsocialist period. Moreover, postsocialist countries with sizable ethnic minorities, in light of amplified ethnonationalist sentiments and institutionalized forms of discrimination, have greater social inequality, pushing ethnic minorities to the bottom of postsocialist class structures.

Overall, we believe that these findings provide strong evidence for social foundations of income inequality trends. The influence of socio-cultural conditions, such as ethnonationalism, on augmenting disadvantage of certain social groups in a society, and hence overall inequality, seems to be the most obvious of these social foundations. But privatization and globalization related outcomes are no more straightforward and unavoidable. As other research shows, privatization is a policy idea diffused in the neoliberal era (Brune, Garrett and Kogut 2001), heavily influenced by institutional and not only economic factors (Henisz, Zelner and Guillen 2005). Decision-making about the speed and forms of privatization in postsocialism was a heavily politicized process (Stark 1992, Stark and Bruszt 1998). In addition, the more or less extensive penetration of FDI into Central and Eastern Europe was found to depend on socialist institutional legacies and politicized concerns about foreign capital infringing on national sovereignty in the newly established states (Bandelj 2003).

Ultimately, then, income inequality trends can be traced to social, cultural and political forces that structure economic processes. The major implication of this finding is that high inequality in postsocialist Europe is not a natural, and thus unavoidable, feature of the transition from socialism to capitalism. What our analysis shows is that those postsocialist states, which made political choices to preserve a larger state sector, and which kept individualist orientations in check with institutional provisions that generate social protections, experienced less income inequality after the collapse of communism than did their counterparts.

In sum, this research makes important contributions to three related strands of scholarship. First, our results have implications for the market transition thesis about positive externalities that would (at least initially) accompany the spread of markets, which has commanded the attention of scholarship on postsocialist transformations. Based on our macro cross-national analysis, we find that, in the first decade after the fall of communist regimes, income inequality increases across and within Central and Eastern European countries. The results show that farmers and agricultural labourers, who, on average,
accumulated little political and social capital during socialism, have been particularly left behind in the market transition. In addition, we find that ethnic minorities have been also significantly disadvantaged, possibly due to wide-spread sentiments of ethnonationalism, which creates various formal institutional and informal prejudice-based obstacles to fair social inclusion of ethnic minorities into postsocialist societies. Moreover, declines in the redistributive role of postsocialist states further disadvantage those on the societies’ brinks.

Second, our research adds to the literature on income inequality and globalization, finding that inflow of FDI is significantly related to higher income inequality in the first decade of postsocialist market transition. But in contrast to mechanisms stipulated by world systems / dependency literature, it is mostly high-income differentiation not exploitation that underlies a negative association between FDI and equality in this region, and shows significant effects already in a short-term. What the long-term consequences of this seemingly autonomous dependency on Western capital will be for Eastern Europe is yet in the making, and a subject for future research.

Third, this research advances the economic sociology perspective on macroeconomic phenomena. It prompts us to reconsider general explanations that assume income inequality is a necessary by-product of economic development. The case of post-socialist transition to capitalism, concurrent with intensification of globalization, shows us that forces which generate income inequality – privatization, sector dualism, foreign investment and ethnic minority exclusion – and factors that deter rising differentiation – redistributive capacity of the state – constitute the social structural, cultural and political context of postsocialist stratification. Future research would gain analytical leverage if it further specified the scope conditions of general theories and explicated the social foundations of income inequality trends.
APPENDIX A – DATA STRUCTURE AND SOURCES

SAMPLE: POOLED CROSS-NATIONAL TIME SERIES

DEPENDENT VARIABLE
Gini Coefficient
TransMONEE 2003 Database, UNICEF IRC, Florence

ECONOMIC DEVELOPMENT
GPD per capita
Sources: World Development Indicators online data base: http://devdata.worldbank.org/dataonline

INTERNAL DEVELOPMENT MODEL
Secondary School Enrollment

Natural Rate of Population Increase

Share Employed in Agriculture
Source: World Development Indicators online data base: http://devdata.worldbank.org/dataonline

Share of Agriculture in GDP (for Sector Dualism measure)

Unemployment
Source: EBRD Transition Report, 1999 and 2003

PRIVATIZATION
Private Sector Share in GDP

Government Expenditure
Source: World Development Indicators online data base: http://devdata.worldbank.org/dataonline

NATIONALISM
Ethnic Composition
Source: Freedomhouse Transition Reports http://www.freedomhouse.org/template.cfm?page=1

GLOBALIZATION
Inward Foreign Direct Investment Flow
## APPENDIX B: Correlation Coefficients for Variables used in the Analysis

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<th>(5)</th>
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<th>(9)</th>
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<td>0.206</td>
<td>0.184</td>
<td>0.014</td>
<td>0.078</td>
<td>0.191</td>
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Nina Bandelj and Matthew C. Mahutga
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Milanovic, Branko. 1999. ‘Explaining the Increase in Inequality during the Transition.’ *Economics of Transition* 7(2): 299-341.


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