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New structural economics meets European transition

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This paper explores whether new structural economics, and more broadly Structuralist approaches, could add to our understanding of transition in Central and Eastern Europe – and ultimately asks whether new structural economics and transition economics might be extended or integrated into a dynamic model of structural transformation that could better account for this particular development experience and provide policy guidance for the future. We have presented three perspectives – new structural economics, transition economics and the Neo-Schumpetarian approach – all of them emphasising different aspects of structural transformation. Their relative explanatory power depends on the context – for example, the extent of distortions in the economy, the quality of the institutions and where a country finds itself relative to the world technology frontier – and the questions we are interested in understanding. We suggest that, to date, the Neo-Schumpetarian approach offers the most promising and persuasive story line to think about this difficult challenge.

Keywords: new structural economics; Central and Eastern Europe; transition; structuralist approaches; transition economics; Neo-Schumpetarian approach

1. Introduction

Structural transformation involves the creative destruction of both economic structures and supporting institutions (Acemoglu 2010). The nature and pace of this transformation determine long-term growth of productivity and income. As an economy changes from agriculture to industrial production or from agriculture and industrial production to services, so must the accompanying rules and governance. The same is true when the composition of exports and imports is altered over time through international specialisation, outsourcing and the gradual upwards movement in global value chains. As a country moves closer to the world technological frontier, what are appropriate institutions also changes (Acemoglu, Aghion, and Zilibotti 2006). Technology evolves with different impact across sectors, forcing both economic structure and institutions to follow. Historically, some economies, like those of Central and Eastern Europe, China and Vietnam under socialism, suffered from deeper distortions of economic structure as well as institutional arrangements, and consequently required more profound systemic structural transformation to close the productivity and income gap, or even keep up with the world leaders.

Transition in Central and Eastern Europe represents a rare opportunity to study such profound systemic structural transformation as a large number of countries simultane-

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ously embarked on radical changes in their economic structure and broad reform of economic and political institutions. By now, an extensive literature in transition economics has described this process, pointed to similarities and differences across countries in terms of development path and achieved results, and tried to explain the observed patterns and draw policy lessons (see Roland 2000; Berglof and Roland 2007; EBRD 2013). Increasingly, this literature has come to emphasise the role of institutions and the need to understand the interaction between political and economic institutions, the political economy.

This paper explores whether new structural economics as defined by Lin (2012, 2015), and more broadly Structuralist approaches, could add to our understanding of transition in Central and Eastern Europe – and ultimately asks whether new structural economics and transition economics might be extended or integrated into a dynamic model of structural transformation that could better account for this particular development experience and provide policy guidance for the future. The Central and Eastern European experience – here denoted the European transition experience – is of general interest as some countries, primarily in Central Europe and the Baltics, fundamentally transformed themselves, economically and politically, to an extent and at a speed arguably unprecedented in history. The process of reforms has now all but stopped, and in some countries and sectors even reversed, impeding structural change, productivity growth and ultimately threatening convergence in income (EBRD 2013). The countries are stuck at different levels of institutional quality with Central Europe and the Baltics having much better institutions overall than the rest of Eastern Europe. In fact, the economies of Central Europe and the Baltics are close to or in some cases even above the level of income where historically growth has slowed down dramatically for so many middle-income countries – the so-called middle-income trap (Eichengreen, Park, and Shin 2013).[1] Understanding the growth challenges these countries are facing may also help our thinking on the more general issue of how to break out of this trap.

1.1. Structuralism: old and new

In developing his notion of new structural economics, Lin (2012, 2015) draws on the traditional Structuralist approach to development, which emphasises the structural differences between underdeveloped and developed economies – as Rodrik (2011) puts it, underdeveloped economies are "not just radially shrunk versions of developed economies". The initial set of structuralist hypotheses was formulated in the 1950s by economists such as Paul Rosenstein-Rodan, Ragnar Nurkse, W. Arthur Lewis, Hans Singer and Gunnar Myrdal (for an overview, see Chenery (1975)). They emphasise the importance of studying an economic system in its totality rather than individual elements in isolation. The structuralists explain developing country phenomena like balance of payment disequilibrium, unemployment and worsening income distribution on the basis of particular properties of the demand and production functions, but also on different assumptions about economic behaviour. They deeply distrusted the price mechanism to produce steady growth and a desirable distribution of income.

Structuralism was particularly influential in Latin America, where Prebisch (1950, 1959) stressed the poor growth conditions, including the weak institutions, in the "peripheral countries" as impediments to industrialisation and technological progress. The lack of market-led growth convergence and inherent structural imbalances, particularly in the balance of payments, required strong state involvement. Among his many followers, Furtado (1964) integrated the specifics of Latin American economic history into the structuralist analysis and pointed to the difficulty of overcoming underemployment and lack of diversification in production. The composition of demand mirrors and tends to preserve inequality of income.

Many structuralists were also interested in the political economy of structural transformation. In his landmark study from 1958, *The Strategy of Economic Development,* Albert Hirschman, a structuralist of sorts with strong on-the-ground involvement in the Latin American development experience, emphasised the weaknesses of policy-making and the need for deeper political economy analysis. Economic policy should aim to achieve disequilibria so as to encourage growth and help mobilise resources. In fact, Hirschman (2013) like many of the structuralists even argued that the study of underdeveloped economies required another economics, one different from what he called "monoeconomics".

New structuralist economics as represented by Lin (2012, 2014) does not advocate the need for another economics, rather it argues in favour of integrating structuralism with more traditional neoclassical thinking. For the original structuralists, the differences between advanced and developing economies could be explained by structural rigidities, such as culture or perverse household behaviours, which in turn gave rise to market failures distorting structural transformation. New structural economics also recognises market failures, but it is more sanguine regarding the capacity of markets to drive structural transformation. The differences in structure between the underdeveloped and advanced economies reflect different comparative advantages arising from their respective endowment structures. Industrial policy is needed to guide the market forces towards sectors where a particular country has latent, possibly not yet exploited, comparative advantage. A benevolent government should facilitate entry into these sectors, ensure that various skill and financial constraints are relieved, and improve coordination and information dissemination among private actors.

This emphasis on comparative advantage is also reflected in how new structural economics sees the main challenge of transition economies. Transition economies are different from other emerging markets in that they have inherited distorted economic structures resulting from the attempt under socialism to defy comparative advantage. The role of government is to manage this structural transition through industrial policy. Transition economics does not deny that these distortions exist, but is sceptical about the government's ability to lead this process. The emphasis has often been on the political economy and the capture of economic policies by vested interest groups. If we could just get rid of these groups and implement the necessary institutional reforms, the productivity gap would automatically close over time as the economy would respond to market signals. Vested interests would be defeated either through rapid reform or through the building of constituencies in favour of reform. New structural economics (essentially assumes away the political economy problem and) prefers the gradual, dual-track approach where government initially retains control over prices and quantities over much of production, and only successively ceases this control.

Whereas new structural economics assumes that institutions will essentially adjust as the structure of the economy changes, transition economics sees institutional reform as the essence of transition – once the appropriate institutions are in place, growth will come. Progress in transition can essentially be measured in the quality of economic and political institutions against some defined ideal. However, a new literature, already referred in the opening paragraph, argues that what are the "appropriate institutions" depend on where an economy finds itself relative to the world technology frontier

(Acemoglu, Aghion, and Zilibotti 2006). In what they call the Neo-Schumpeterian approach to economic development and transition Aghion, Akcigit, and Howitt (2013) show that the entry and exit of firms matter more, and as a result entry barriers are more negative for growth, the closer a country is to the frontier. Consequently, institutions enforcing competition policy and financing features facilitating entry and exit become more important as a country approaches the frontier.[2] Similarly, the more frontier an economy is, the more growth depends on research-type education, suggesting how research and educational institutions need to adjust. Using the same framework, the authors suggest that inequality is bad for growth as it makes the median voter poorer and thus increases the risk for redistribution which, in turn, reduces investment. The reasoning also extends to political institutions: Democracy is more growth enhancing close to the frontier as it restricts expropriation of entrepreneurs or erection of entry barriers by insiders.

Whereas transition economics clearly has primarily been driven by the European transition experience, the traditional structuralist approach drew much of its inspiration from the development failures of Latin America and South Asia, in particular India (Myrdal 1968), emphasising resource dependence and the associated challenges on foreign exchange-constrained growth and a secular deterioration of terms of trade. New structural economics, on the other hand, is inspired primarily by the remarkable rise of the Chinese economy in the last three decades and, to some extent, by the success of the "Asian Tigers" over the last half century. Like in Latin American Structuralism, the state plays an important and active role in addressing these challenges. The question in this paper is whether the structuralist framework can also help us explain successes and failures of European transition, and whether this experience can inform new structural economics.

2. The European transition experience

The European transition experience is truly diverse, but there are some common elements. All countries that embarked on reforms in earnest had an initial output fall – the depth and length of which varied substantially across countries with the countries of the former Soviet Union experiencing more protracted and deeper recessions. The transitional recession was followed by strong growth and rapid recovery almost everywhere. All countries that embarked on transition went through dramatic changes in their economic structure, with "de-industrialisation" and associated expansion of the underdeveloped service sector (all well described by Landesmann (forthcoming). Trade shifted radically from within the Soviet bloc to the European Union. As Landesmann points out, there was also important structural change in economic behaviour by all the main actors in the economy, including households, firms and the government. By the time of the global financial crisis, almost all countries had consumed their "transition dividend", i.e. they had closed the abnormally large productivity gap relative to income that characterised these countries at the start of transition (EBRD 2013). In this regard, they have become like other emerging markets and face growth challenges similar to theirs. Another common feature in the European transition is the fact that the reform process has stalled in all countries since the beginning of the 2000s – only the countries originating in former Yugoslavia and Albania continue improving the quality of their economic and political institutions.

The differences across countries are still more striking than the similarities. Already at the beginning of the 2000s, the "Great Divide" had opened up between, on one hand, the Central European and the Baltic transition economies, and on the other, the rest of the former Soviet Union (Berglof and Bolton 2002). In 2005, slightly less than half of the European transition countries had not reached their pre-transition level of income – with one exception (Serbia) they were all former Soviet republics (EBRD 2013). Russia only passed that threshold in 2006. Still by 2013, six countries – Serbia, Moldova, Ukraine, Georgia, Tajikistan and the Kyrgyz Republic – remained below their 1991 output.

Institutional transformation in Central Europe and the Baltics followed many different trajectories – in virtually every dimension of importance to the economic system, like privatisation, bank restructuring and corporate governance reform, a wide range of policies have been implemented – but today the main features of the economic systems of these countries are remarkably similar (Berglof and Bolton 2002).[3] Interestingly, they all have strong emerging market characteristics with a corporate sector dominated by companies controlled by a single owner/entrepreneur and a bank-dominated financial sector. Financial markets are small, relatively illiquid and unimportant for the economy as a whole. On measures of quality of economic and political institutions, they generally score much higher than their counterparts on the other side of the Divide. Despite some recent trends towards populism and nationalism, and still turbulent political landscapes in these countries, they are all democracies. During the second half of the 1990s and first half of the 2000s, they saw largely healthy inflows of capital into tradable sector which helped structurally transform them into internationally competitive economies.

While successful reformers have converged in terms of institutions, less advanced reformers exhibit much greater variation in institutional characteristics and economic performance. In some countries, primarily Turkmenistan, Belarus and Uzbekistan, the old guard is still hanging on with only very limited economic and political reforms as a result. Tajikistan and the Kyrgyz Republic have both attempted reforms, but today they are essentially "failed states" with only very modest progress in terms of institutional quality. In Ukraine and some other countries, the initial winners of reforms have captured the political process and contributed to the stalling of reforms. In Azerbaijan and Kazakhstan, and arguably in Russia, insider capture of core institutions has been amplified by the distortive effects of vast resource rents. As a result, the structural changes in these economies have progressed much more slowly, and as a result, productivity improvements have been more modest.

The countries of south-east Europe show a somewhat different pattern. Like the countries of Central Europe and the Baltics these economies received high capital inflows which fuelled rapid credit growth in the private sector, but unlike them these flows went mostly to non-tradable sectors. This, in turn, led to over-valued real exchange rates, which further crowded out tradable activities and export capacities. Even after real exchange rates have started to adjust these distortions tend to persist. New production capacities take time to build, sector-specific skills get eroded and educational structures regenerating these skills change only slowly with long gestation periods. After the crisis, raising external finance to redress these imbalances has also become more difficult. These economies may well be constrained to a low-growth path which in turn discourages the necessary investments. EU accession process and the associated reform momentum in many countries in this sub-region help compensate for destabilising imbalances.

This diversity in transition experience and economic outcome reflects important differences in initial conditions. History, for one, matters. Some observers emphasise eastern European historic backwardness, pointing to the differences between, for example, the Czech Republic and Bulgaria (Berend 2003), while others stress the previous experience of rule of law as an explanation for why Central Europe was more successful than other parts of the region in improving institutional quality. Differences between communist systems, e.g. between the Soviet Union, the rest of Central and Eastern Europe and former Yugoslavia, but also differences within the Soviet Union, e.g. between the Baltic states and other republics, have affected transition trajectories. Recent research emphasises the persistence in values and attitudes and how they influence economic outcomes.[4] As already mentioned, resource endowments clearly played a role in amplifying institutional weaknesses and increasing incentives to capture the political process (Egorov, Guriev, and Sonin 2009).[5]

Perhaps most importantly, geographic and cultural proximity to the EU played a critical role in giving weight to the outside anchor provided by the potential for EU membership, both in terms of likelihood of membership and the benefits of having full access to the EU market (see Campos 2015). The carrot and occasional stick of the accession process helped align political forces and overcome status quo bias and individual veto players. The larger the value of membership, the more certain the reward given the specified effort, and the closer in time these benefits were, the stronger was the outside anchor (Berglof and Roland 2000). Experience has also confirmed the prediction that once countries were inside, the pace of reforms would slow down.[6] The outside anchor effect of EU accession could also help explain why most of the countries of Ex-Yugoslavia have continued to reform when the process has stalled in the rest of the European transition region.

When it comes to industrial policy, very much emphasised by structuralists and new structural economics, Central European economies have, at least until the global financial crisis, largely followed the revised Washington Consensus approach (Williamson 1997). They have focused on horizontal measures improving the investment climate for all or most firms rather than targeting specific companies or industries.[7] Arguably, this happened to some extent by default, as governments in these countries had relatively limited resources to devote to any type of industrial policy. Many of them were also constrained in their use of policies that supported specific firms or sectors by the fact that they had joined or aspired to join the European Union. Some countries with little chance of ever becoming EU members, but with significant resource rents, have more actively pursued vertical industrial policies. State intervention has increased significantly, also in Central Europe, following the global financial crisis, with many governments trying to create their own development institutions and becoming more targeted in their support to industry. The jury is still out whether these initiatives will yield the desired results.

The evidence suggests that overall openness to foreign investment and other forms of international integration have promoted successful economic reform in normal times – even in less democratic environments (EBRD 2013). Foreign companies have generated demand for better government services and set standards for better corporate governance. Entry of foreign banks has promoted financial development and facilitated the transfer of savings from Western to Eastern Europe, and served to stabilise the financial systems in the global financial crisis. Most likely, the international financial institutions have also provided inspiration, expertise and commitment opportunities, in part by producing external benchmarks and encouraging improvements in the business environment, such as cutting red tape. The crisis also unveiled vulnerabilities in the cross-border banking relationships, and the international institutions have played a role in managing the reduction of risk and finding a better balance between domestic and foreign finance in these countries.

3. Structuralism meets European transition

The first objective of this paper was to explore the extent to which new structural economics could help explain structural transformation in Central and Eastern Europe. At first glance, it may seem that the experience from Emerging Europe, particularly Central Europe, militates against the central tenets of this approach. These countries have essentially followed the Washington Consensus, let be in its later more institutions-oriented version (Williamson 1990, 1997, respectively), by liberalising prices, opening up to trade and privatising most of industry. A large group of countries have successfully converged and they have done so by copying institutions and attracting investment, rather than copying industries – the adoption and implementation of the Acquis Communataires of the European Union by these countries represents one of the most extreme examples of institutional copying ever witnessed. State intervention in the form of industrial policy targeting specific sectors where countries have comparative advantage has arguably been less important in the successful countries than in those where institutional quality and economic output have improved less. In the former group of countries, the emphasis has been more on general policies improving the investment climate, something not emphasised in new structural economics.

However, in the wake of the global financial crisis and in the recognition of competitiveness challenges facing their countries policy-makers throughout Central and Eastern Europe have paid more attention to the need for specific interventions to support domestic industry. All countries have adopted innovation policies (EBRD 2014) and many have formed or are in the process of forming new or reform old national development institutions to help promote small- and medium-sized companies and, more recently, spur innovation, reinforced with EU Structural Funds in countries with access to these resources. Despite limited resources governments are increasingly targeting specific skill gaps and finding new ways to encourage foreign companies in certain sectors, such as the automotive industry, to invest. Overall there is a stronger appreciation for the role of the state in solving information and coordination problems in the economy, very much in line with what new structural economics would argue.

Should governments in the region have become more active on the industrial policy front at an earlier stage of economic and political transition? Could some of the competitiveness challenges the region now is facing have been less daunting had they been addressed earlier? Perhaps, but it is also important to pay attention to the political economy dimension, an aspect not emphasised by new structural economics. Arguably, targeted industrial policy is vulnerable to capture by special interests, and with weak economic and political institutions such capture is much more likely. This is also what we see in the least reformed countries in Eastern Europe where such policies have been more common. But it could be that more active state intervention that would have been disastrous at earlier stages of transition now has become more attractive as the quality of economic and political institutions has improved. Moreover, the powerful oversight of EU accession process has offered valuable commitment opportunities.

4. New structural economics meets transition economics

Our second objective is to see to what extent the perspective of transition economics, the field of research which has developed in response to the transition experience in Central and Eastern Europe, could be enhanced by incorporating elements from the structuralists and new structural economics – or, alternatively, how new structural economics could learn from the insights in transition economics. But before passing judgement on traditional structuralists, like Prebisch, Furtado and Myrdal, it is important to remember that they wrote before the explosion of the hugely influential literature on incentives in the 1970s and 1980s. Today, it is hard to imagine how any development problem could be understood without taking into account the impact of incentives on people's behaviour, including of those involved in policy-making. Thanks to the insights from behavioural economics, mainstream economics has also embraced a more complex understanding of how incentives influence human behaviour. In addition, we have a greater understanding of the importance of attitudes and more slow-moving values and how they can interact with incentives in shaping economic decision-making.

Still, many of the insights from structuralism have been taken on board by mainstream economics – in many ways, we are structuralists now. It is generally accepted that understanding underdevelopment requires deep knowledge of the structure of employment and production, and why these structures do not change to eliminate the productivity gap. Policy-makers and development experts exert considerable effort trying to understand the backward and forward linkages and spillovers of individual investments emphasised by Hirschman (1958). Governments go to great trouble to attract foreign direct investment or use their own funds to generate spillovers benefitting particular regions or industries. Moreover, there is an understanding that the structure of employment and production must change as a country moves closer to the world technological frontier. Central European countries, but also Russia, have managed to attract large investments in the automotive sector enhancing workforce skills and stimulating supplier networks and downstream retail and service delivery. Few Central European countries are also making significant investments in secondary and tertiary education to better accommodate to the changing requirements as they attempt to close the productivity gap.

The deep distrust of the structuralists towards markets as a mechanism for resource allocation is also much more understandable when seen through the lens of the incentives and institutions literature. Market failures and structural rigidities are today at the heart of transition economics and development economics. As a result, there is a more general understanding that interventionist policies may be necessary – the question is more about how to intervene and how to ensure that such interventions are not captured by special interests. As mentioned above, this is less of a concern in Central European countries where state intervention is constrained by the rules of the European Union, but where constitutional constraints are weak, like in Russia and Kazakhstan, the role of the state as a catalyst and promoter of structural transformation is more problematic.

More generally, few development professionals or observers of development policies would today deny that the state has an important role in encouraging and even steering structural transformation. The traditional structuralists and the new structural economics have emphasised this much more than transition economics literature. Given that the structuralists did not have access to all the insights of the "incentives revolution" in the economics literature, they must be excused for having a somewhat rosy-eyed view of the state as a force in development. As the challenges of implementing policies and governance failures have become increasingly apparent, this optimism has since mellowed.

The original structuralist call for more emphasis on institutional aspects has also largely been accepted (Furtado 1964).[8] Today, more emphasis is placed on the copying of institutions rather than industries, and what the appropriate institutions are and how institutions in advanced economies need to be adjusted to function in settings where industries are further away from the world production frontier. New structural economics, on the other hand, at least as presented in Lin (2015), seems to focus less on the role of institutions and the impact the quality of institutions might have on the making of industrial and broader economic policy.[9] This benign neglect of institutions is understandable given the Chinese experience where much of the growth has come from changes in the economic structure, and less on the other aspect of structural transformation – institutional change.[10]

Reforming the political institutions, a core element of broader institutional transformation, has also not been the primary concern of the Chinese government nor of new structural economics. Yet, the transition experience in Central and Eastern Europe suggests a strong interdependence between economic and political reforms. Early investments in political reforms paid off later in terms of the quality of economic institutions, and early economic reforms helped stabilise political institutions (EBRD 2013). The European transition experience suggests that the long-term stability of economic reforms can only be ensured when accompanied by political reforms.

The structuralists are perhaps best known for their deep mistrust in the global trading system which they thought systematically disadvantaged "periphery" countries. While many underdeveloped and emerging economies – not least the countries of Central Europe – undoubtedly have benefited from an era of relative openness of trade, specific policies pursued by advanced economies, particularly in sectors like agriculture where under-developed economies are likely to have comparative advantage, tend to discourage growth convergence. More profoundly, evidence suggests that high value-added activities, more likely to be located in advanced economies, produce higher growth rates over time. Like so many underdeveloped and emerging economies around the world, Central and Eastern European countries have tried to climb the value-added ladder and diversify their exports and imports globally. In this regard, Central Europe and the Baltics have been much more successful than other countries in the former Soviet bloc.

5. Towards a neo-schumpeterian synthesis

Structural transformation in Central and Eastern Europe has been a learning process. Our theoretical understanding of economic growth and institutional change has evolved, and the availability of data has improved dramatically since transition started. New structural economics and transition economics have been part of this evolution. They differ in their emphasis between the two sides of structural transformation with new structural economics focusing on changes in economic structure and transition economics on institutional change. They have evolved largely independently and there is still ample room for cross-fertilisation between them within the "big tent" of modern economics. They would also both benefit from revisiting the original structuralism – new structuralist economics from rekindling the original structuralist's interest in institutions and political economy, and transition economics from gaining a stronger appreciation for economic structures and how the requirements on them, and on supporting institutions, change over time. The structuralist emphasis on systemic thinking and an experimental, learning-focused gradual approach is also worth taking into account when analysing development challenges and designing policy responses.

So far, we have assumed that the quality of political and economic institutions was independent of where a country found itself relative to this frontier. According to the notion of "appropriate institutions" in the New-Schumpetarian approach, this assumption does not hold. What institutions are appropriate and where to put the emphasis in institutional reform depend on where a country is relative to the world technology. For example, as countries move closer to the frontier, institutional arrangements for financing and policies facilitating entry and exit of firms and investments in research-type education become more important. Similarly, inequality of income and weaknesses in political institutions become more constraining closer to the frontier. The protection of intellectual property rights is likely to be more important as countries approach the frontier – far-away countries for which copying is essential may actually suffer from better enforcement of property rights.[11]

In assessing an economy's capacity for structural transformation, the Neo-Schumpetarian approach would look at its framework conditions for innovative capacity – its stock of public and private technological know-how and the functioning of its products markets, labour markets and financial markets – and its access to technology, particularly new technologies, ICT availability and use and the scope for transfer of know-how through FDI. It would also look at its capacity to absorb technologies, which is the level of education and human resources, including secondary and tertiary enrolment and availability of scientists and engineers. Neo-Schumpeterians would emphasise the dynamic challenges of training and retaining high-skill professionals and sustaining creative capacity through investments in the public science infrastructure and strengthening the links between this infrastructure and the private sector, IPR protection and venture-capital availability.

In the New-Schumpeterian world, the stresses on the economic structure and institutions, and the nature of structural transformation, change over time. In economies with very low levels of development, take up of technology is absent or slow, severely constrained by human capital. As development takes off, the pressure on existing human capital increases, and technology take up differs even across countries at similar levels of development reflecting differences the ability to effectively absorb new technologies (World Bank 2008). Companies buy high-technology products from abroad making growth of productivity and income dependent on the access to foreign technology through FDI, trade and migration of high-skilled workers. In order to absorb the new technology, a country needs to increase technology literacy of its workforce, improve its investment climate and reform public sector institutions to promote the take-up of critical technologies when private demand or market forces prove inadequate. As countries get closer to the technology frontier, heterogeneity increases further reflecting differences in the countries' own indigenous innovative capacity (Hoekman, Maskus, and Saggi 2005). Initially, the focus is on incrementally changing or adapting acquired know-how and only at later stages will it generate new technologies, particularly in sectors in which the country has developed some comparative strengths.

5.1. Similarities and differences

At the risk of oversimplifying, new structural economics focuses on the issues facing countries far away from the frontier, particularly China. As countries approach the frontier, new constraints will start to bind, and the resistance from those benefiting from the weaknesses in the existing institutional arrangements will intensify. Transition economics emphasises these institutional and political economy constraints and how they shape economic structures and policy interventions. The Neo-Schumpeterian approach, in turn, looks at the dynamic problem – how the demands on the economic structure and institutions changes over time. It stresses a country's capabilities to respond to new challenges as demand shifts and new opportunities open up.

At early stages of development, much of the productivity gains will come from the shift from agriculture to industrial production and, particularly in transition economies, services. Adoption and adaptation of established technologies are more important than genuine innovation, and much of this happens in existing firms that can be readily financed by commercial banks. The main focus is on policies facilitating the agricultural transition and technology adoption, but as a country moves towards the frontier economic policy becomes more about climbing the value-added ladder and strengthening innovation capacity. The relative importance shifts from economic structure to institutional change ensuring that institutions are appropriate for the new demands. The Neo-Schumpeterian approach looks at existing capabilities and tries to identify how new ones can be built. What are the missing skills and how can new technologies be put in place to facilitate future structural transformation?

A way of thinking about the difference in perspectives is that new structural economics assumes that establishing an economic structure generating growth is sufficient, institutions will then follow. In transition economics, the main challenge is to improve institutions, and by raising institutional quality economic structure will change and growth happen. In the Neo-Schumpeterian approach, economic structure and institutions evolve in a complex interplay with the relative importance of the two elements of structural transformation changing over time. This discussion is familiar from the growth and finance literature where one view has been that the financial system adjusts to changing demands in non-financial parts of the economy and another one arguing that financial development can drive economic growth. Again, a Neo-Schumpeterian perspective would recognise that causality goes both ways, and indeed, financial development in a particular country depends heavily on the appropriateness of other aspects of its institutions.

One illustration of how the different approaches complement each other to provide a more comprehensive and deeper picture by focusing on different elements could be the German-led cross-border industrial clusters which have created the conditions for sustainable growth in Central Europe. These countries overthrew their distorted economic and political systems and embarked on broad institutional reforms. Western European governments responded by offering countries an outside anchor for this reform process. Attracted by the abundance of cheap and relatively well-educated labour and protected by the umbrella of EU accession German companies invested massively in these transition economies contributing to the transformation of both economic structures and institutions. These companies could focus on more high-skill activities in Germany while lowering overall manufacturing costs. Over time, skill levels have been raised throughout these production networks increasing the competitiveness of the host countries of the German subsidiaries.

In dissecting this example of successful structural transformation, the new structural economics would focus on how industries followed comparative economic advantage while, transition economics would stress the enabling institutional changes encouraging capital to seek more profitable opportunities in the Central and Eastern Europe. The Neo-Schumpeterian perspective highlights the dynamics of this interaction between economic structures and institutions and how ultimately the receiving countries will have to shift from imitation and adaptation to innovation to converge towards the world technology frontier and enjoy the higher growth rates associated with more high-skill activities. Eventually, they will have to compete with the German companies. It is this transition from a middle-income imitator to a high-income innovator economy that has proven so difficult for so many countries in the world over the last half century.

Despite obvious and important differences in the state of structural transformation across countries the policy responses are strikingly similar. For example, all or most countries are establishing innovation policies, build techno parks and science parks and provide some kind of financial support to innovative activities, but there is little sense that these measures reflect the specific challenges in the countries they are being implemented. In fact, a recent survey of innovation policies across Central and Eastern Europe shows a remarkable homogeneity across countries – countries have adopted, but hardly adapted and rarely been very innovative about adapting these policies (EBRD 2014). The emerging overall conceptual framework may still not be granular enough to help design better tailored industrial policy interventions, but it is getting closer to an overall philosophy for such interventions. Any industrial policy would have to take place within the fiscal and implementation constraints of a particular government, raising the issue of how best to prioritise among possible interventions. Transition economics has often pointed to the severity of these institutional constraints, particularly in early phases of the transition process. Asking governments captured by vested interests to select "winners" among potential industries is unlikely to yield the desired results. Yet, horizontal policies, such as broad support to education and research, may risk spreading scarce resources too thinly. Some proponents of more vertical industrial policy have argued in favour of what they call "smart specialisation" which tries to marry-specific industries where a country has comparative advantage, say tourism, with more general purpose technologies like information technology (see Foray 2015) – by investing in an ITC-based upgrading of its tourism industry a country can achieve cost-effective improvements in its competitiveness.

The different approaches take different views on the need for state intervention and what form such intervention should take. New structural economics would emphasise the need to handle the shift away from industries defying comparative advantage towards industries where countries supposedly have such advantages. Transition economics would stress more the role of the private sector itself within the institutional framework set and enforced by the government, but would also recognise the need for government involvement when social returns are high and private returns are low. The proponents of new structural economics believe that these situations are common and that governments can be helpful, whereas transition economics would be sceptical about the government's ability to identify such situations and to constrain itself to only intervene then (ironically, new structural economics seems to ask the most from governments when institutions are likely to be the weakest, when an economy is far away from the frontier). Neo-Schumpeterian thinking is likely to be closer to new structural economics in terms of the role for industrial policy as it is focused on the more difficult dynamic problem of moving closer to the frontier, a challenge where social and private returns are even less likely to be aligned, but sees a role for the private sector to lead this process.

It is important to note that in the example of the German-led clusters the structural transformation was largely driven by the private sector, rather than by active industrial policies from the governments in the transitioning countries. However, governments in Central Europe are now realising that they can no longer rely on foreign direct investments attracted by low-cost labour and need to create the conditions to attract more high-skill activities. They have established specialised agencies, like Czech Invest, to engage with potential foreign investors. Yet, any successful strategy must rely on firms as they are in the best position to explore and test the new avenues of innovation and structural changes, in collaboration with research structures and other social organisations (Foray 2015). This process naturally involves trial and error, but it is critical that there is learning and accumulation of experience. Here, again governments can play an important role.[12,13] The example of the German clusters also illustrates that comparative advantage is only one of the determinants of where to locate production. Much of world trade takes place within industries rather than across industries. With the fragmentation of value chains and the interplay between traditional industries and enabling technologies, the distinction between inter- and intra-industry makes less and less sense.

The three perspectives would probably differ in terms of what exact form government intervention should take. New structural economics would likely support directed financial support for economic activities or investment in individual sectors where a country would be believed to have comparative advantages, whereas transition economics would prefer for such interventions to target-specific gaps, like sector-specific skill shortages or financing constraints. New structural economics would most likely welcome support to specific, well-defined geographical areas, whereas transition economics would be sceptical about the viability of islands of excellence in a sea of poor institutions. A Neo-Schumpeterian approach would argue that such technology parks, business incubators and science cities are more likely to be worth the investment when an economy is close to or on the frontier. It would share the emphasis in transition economics on innovation-based growth performance, strongly shaped by an industrial policy framework conditions and by the broader institutional environment.

6. Concluding remarks

What we need to understand the systemic structural transformation experience of Central and Eastern Europe is not another economics, as many of the early structuralists would have argued, but we do need new economic thinking that allows us to better understand the interaction between economic structure and institutions, how this interaction is affected by the legacies of history, geography and ethnicity and how it change as a country moves relative to the world technology frontier. We have presented three perspectives – new structural economics, transition economics and the Neo-Schumpeterian approach – all of them emphasising different aspects of structural transformation. Their relative explanatory power depends on the context – for example, the extent of distortions in the economy, the quality of the institutions and where a country finds itself relative to the world technology frontier – and the questions we are interested in understanding.

The choice of framework is also important because it shapes the narrative – costly and often painful structural changes and institutional reforms require a convincing story line to be embraced or at least not resisted. The structuralists and their followers at the time placed a lot of emphasis on language and perceptions (e.g. Myrdal 1969; Hirschman 2013). Experience shapes perceptions, and perceptions influence outcomes. For example, "privatisation" and "liberalisation" are words that have taken on certain meanings, also within Central and Eastern Europe, reflecting how these processes so far have been handled and how they played out in individual countries. In a similar vein, the perception of the word "democracy" also depends heavily on context and connotation. The output fall and general economic chaos, but democratically relatively vital, during the Yeltsin presidency still colours the understanding of Russian citizens of the "D-word" and the associated narrative. The evidence on the importance of slow-moving values, often persisting for centuries, is important to understand in order for policy-makers to shape these narratives and influence perceptions.

Both new structural economics and transition economics offer very general narratives, with messages on structural transformation largely independent of the historical context and where a country finds itself relative to the world technology frontier. The Neo-Schumpeterian approach, on the other hand, is more contextual, describing how economic structures and institutions need to change along the journey towards the world technology frontier. In this sense, it is more helpful in guiding policy in a particular country. Yet, the Neo-Schumpeterians have yet to understand better how the legacy of attitudes and values and broader collective memory influence economic structures and institutions today. Without an understanding of the behavioural aspects of structural transformation, it will be hard to break down behavioural barriers to entrepreneurship and cross-border investments. Here, again narratives are important. Given the apparent power of the Middle Income Trap to capture economies for decades, even centuries, the "escape narratives" need to be particularly powerful. We suggest that, to date, the Neo-Schumpeterian approach offers the most promising and persuasive story line to think about this difficult challenge.

Notes

1. Only 13 out of 101countries classified as middle income had become high income by the time of the global financial crisis in 2008 and a couple of them, Greece and Portugal, have since slipped back into middle-income status (World Bank 2012) Much effort has been spent on establishing at exactly which income level do economies get stuck in the so-called Middle Income Trap and why (Eichengreen, Park, and Shin 2013).
2. In fact, pursuing pro-competition beyond a certain level of competition may have counterproductive impact on innovation and productivity as the lower returns discourage firms from investing in developing new products or processes. The literature suggests a complex nonmonotonic relationship between innovation and competition trading off the Schumpeterian effect with Arrowian replacement effect (for early evidence on countries in Central and Eastern Europe, see Djankov and Murrell (2002) and Carlin, Schaffer, and Seabright (2004)
3. For a more granular view of the differences of societies within Central Europe and the Baltics, see Bohle and Greskovits (2014). They distinguish between the neoliberal type in the Baltic states, the embedded liberal type in the Visegrad countries and the neocorporatist type in Slovenia. They also emphasise the heterogeneity within the countries of south-east Europe. Yet, all these economies share the features identified in the text, and in these regards, they are distinct from the varieties of capitalism in the rest of Europe and the United States.
4. A number of researchers find remaining traces in the landscape of values and attitudes of the Pale of Settlement, the line beyond which Jews were not allowed to settle in the Russian empire (Grosfeld and Zhuravskaya 2013; Acemoglu, Hassan, and Robinson 2011), and of

the Ottoman and Habsburg empires (Becker 2011; Grosjean 2011). Using a similar methodology, researchers establish a lasting impact of the Second World War on today's economic performance (Grosjean (2013) and Grosfeld and Zhuravskaya (2013)).
5. Another source of divergence is violent conflicts in the early years of transition. Most of the revolutions in Central and Eastern Europe were remarkably peaceful, but some countries, like Tajikistan and former Yugoslavia, experienced war during transition that still affect political trust and legitimacy. Grosjean (2013) find such effects from the Tajik civil war and the results from the Life in Transition Survey suggest a similar impact in the countries of the Western Balkan (EBRD 2011).
6. Reform effort by individual members in a "club" like the EU tends to be determined by the least efficient member, but the threat of creating clubs-in-clubs (e.g. the Eurozone within the EU) can help sustain reform momentum (Berglof et al. 2012).
7. As Rodrik (2008) has pointed out, pure horizontal industrial policy is a theoretical limit case, and is never really observed in reality, as every measure is likely to have different impact across sectors.
8. Not all economists agree that institutions are the main determinant of economic growth (see, for example, Shleifer (2012) who emphasises human capital. The value of human capital, of course, is influenced by institutions and vice versa, and the effectiveness of institutions is likely to be influenced by the quality of institutions. Banerjee and Duflo (2011) also emphasise that institutions are not destiny-development objectives can be achieved even when institutions are weak.
9. It could be argued that the Chinese government also paid close attention to institutions – it is just that they were different from those recommended by the Washington Consensus (e.g. two-tier pricing, ambiguous property rights and market liberalisation) and thus would not be picked up by standard measures of institutional quality. However, they certainly placed less emphasis on rule of law and democratisation of the political process.
10. Much of the extraordinary growth in China, particularly in the first two decades after the transition towards a market economy with "Chinese characteristics" started, came from the transfer of underemployed labour from agriculture to industrial production. Starting with the development of the township village enterprises and then massive growth of new private enterprises, the focus has shifted from the agriculture transition to increasing the value added. The current focus on institutions, in particular on high-level corruption, is of recent date.
11. Microsoft seems to have pursued a very lenient approach to copying in less advanced markets. Part of this can be about enforcement issues, but it could also be optimal to let users lock into Windows technology and then be trapped as enforcement of property rights gets tougher.
12. This is akin to what Hausman and Rodrik (2003) and Rodrik (2004) have called "self-discovery" where governments are engaged in a process of understanding what the critical constraints in the economy are. This is an understanding that, at least in part, has to come from genuine first-hand experience.
13. The European Commission has attempting to generate such dynamics in individual regions (Foray 2015).

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