

A DUAL TRACK SPATIAL STRATEGY FOR RUSSIAN ECONOMIC REFORM

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Abstract: *From the 1950s, central planning severely distorted the composition and location of economic activity in Russia so that investment efficiency steadily declined. Yet two decades after central planning collapsed in the early-1990s and reforms commenced the economy still remains distorted. This paper argues that the expansion of hydrocarbon rents since 1973 has created a rent-addicted economy that impedes economic reform. Increased rent eased pressure for economic reform through the 1970s and sustained inefficient industry and public services, too much of which was skewed towards locations in smaller settlements often in hostile environments. Although the collapse of rents in the late-1980s eventually forced reform to commence, the pace of change slowed when rent rebounded through the 2000s so reforms remain incomplete. This paper argues that Russian rent-dependence is unsustainable, but counsels against central reform because of the capacity of powerful rent-recipients to remove a reforming government. Instead, it proposes a dual track strategy to manage political opposition to renewed economic reform. The strategy postpones reform in the distorted economy (Track 2) while growing a dynamic market economy within Early Reform Zones (ERZs), which comprise Track 1. Unlike first generation economic zones, the ERZ requires no subsidies but is managed by experienced commercial firms and provides world class infrastructure along with guarantees for property rights and the rule of law. Experience with dual track reform in China, Malaysia and Mauritius indicates that Track 1 can rise to economic dominance within two decades. Critically, Track 1 also builds by then a pro-reform political coalition strong enough to face down rent-seeking recipients and co-opt them into pursuing economy-wide reform.*

1. INTRODUCTION

The Russian economy became strongly distorted as a consequence of several decades of central planning and an increasing dependence on hydrocarbon rent. The distortions exhibit strong inertia because they create powerful rent recipients that oppose economic reform and threaten the survival of reformist governments. Yet Russian rent dependence is high-risk due to price volatility while it is also unsustainable through the long-term due to the finite nature of the hydrocarbon rent source. Consequently, this paper proposes a dual track strategy for achieving effective economic reform by managing political opposition to reform. The strategy

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establishes Early Reform Zones (ERZ) that postpone top-down reform of the distorted economy (Track 2), while expanding a dynamic market economy (Track 1) that also builds a pro-growth political coalition, which within fifteen years can take on and co-opt potential opponents of reform within the distorted economy (Auty 2011). The ERZ differs from first generation zones by eschewing subsidies. Instead, it attracts internationally competitive firms by immediately providing post-reform conditions of world class infrastructure, efficient commercial services and guarantees of property rights and the rule of law.

The paper is presented in four stages. Section 2 establishes the extent of distortion of the Russian economy, structural and geographical, and the vested interests that maintain it and block top-down economic reform. Section 3 differentiates the ERZ from first generation export zones and explains how it restructures the space economy by avoiding the failure of first generation economic zones in Russia. Section 4 analyses the success with ERZs of Mauritius, Malaysia and China, noting how the ERZs became the catalyst for economy-wide economic reform. Finally, the policy implications for Russian reform are distilled and summarised. The paper argues that past Russian efforts to subsidise high-tech clusters and/or backward regions lacked sufficient appreciation of the coordination required by a dynamic market economy. Successful ERZs in other countries targeted a range of competitive economic activity in line with the economy's evolving comparative advantage and also built a pro-reform political coalition, achievements that have eluded Russian reformers hitherto.

2. RUSSIA'S DISTORTED RENT-DEPENDENT ECONOMY

Russia opted to become a rent-driven economy during the 1973-82 oil boom by deliberately eschewing socialist national self-sufficiency and expanding its hydrocarbon exports. One consequence was that ongoing experiments in economic reform lost their urgency until the oil price crash of the mid-1980s destabilised the political economy and prompted a phase of forced reforms in the 1990s that was botched. The economic hardship and political instability during the oil downswing gave way to more autocratic rule that was consolidated through the post-2000 boom, which sharply boosted hydrocarbon rent. The increased rent was associated with a deceleration of the economic reform effort. Consequently, the Russian economy exhibits symptoms of the resource curse that include Dutch disease effects, impaired governance and rent-seeking. Gaddy and Ickes (2010) conclude that Russia evolved from an oil-dependent economy into an oil-addicted economy. Yet rent-driven development is ephemeral so the economy needs to shift into productivity-driven growth in order to sustain continually rising living standards.

The structure of the Russian economy was distorted by a combination of decades of central planning (de Melo *et al.* 2001) and the deployment of the oil rent. Table 1 shows that on the eve of economic reform in 1990, employment in Russian

Table 1
Structural Change Russian Tradeable Sectors 1990-99 (Actual + Norm %
Employment Share)

	<i>Sector</i>	<i>Actual</i> 1990	<i>Norm</i> 1990	<i>Actual</i> 1999	<i>Norm</i> 1999	<i>Departure</i> <i>from norm</i> <i>in 1999</i>
Russia	PCI (US\$ 1995)	7,500	7,500	4,000	4,000	
	Agriculture	0.13	0.24	0.12	0.35	-0.23
	Industry	0.42	0.27	0.29	0.23	+0.06
	Distortion	-0.07		-0.17		

Source: Raiser *et al.* (2004), 29 and 31.

industry was 50% larger than the norm for a market economy while agricultural employment was half the size expected. Public services employed more workers than expected and market services fewer workers. This outcome reflected the repression of markets to accommodate an over-expansion under weak budget constraints of state-owned manufacturing and the premature mechanisation of agriculture. The collapse of central planning brought some economic restructuring through the 1990s. The share of industry in the workforce shifted towards market economy levels, falling from 42% to 29%, but still 6% above the market norm. However, agriculture remained well below the size expected (at one-third the predicted market level) so in aggregate the tradeables sectors employed two-thirds of the expected workforce. Non-market services remained larger than expected while market services expanded to a level slightly above the norm (Raiser *et al.* 2004).

The employment ratios are consistent with Dutch disease effects, with total service employment having 17% more workers than predicted but in addition, much industry remained dependent on direct or indirect government subsidies to cover its costs (under-pricing of energy and non-payment of taxes, respectively) and would have shut down without it. Gaddy (2007) estimates that some 48% of industrial enterprises remained loss-making a decade after market reform commenced. The World Bank (2004, 51) confirms this: Russia governments compensated for the inadequacy of their social safety nets by sustaining jobs that markets would not support. By 2008, the mining sector employed barely 1.6% of the workforce but it generated around one-third of GDP, one-third of government revenue and four-fifths of exports (Goldsworthy and Zakharova 2010). High-tech manufactured goods comprised just 8% of exports, mainly weapons.

Not surprisingly, the economic distortion is reflected in Russia's economic geography: compared with market economies the population is distributed away from the largest cities and into a long tail of smaller settlements. Russia is unusual for the under-sizing of its two largest cities and it also exhibits 'missing' cities in

the next size tier of 1.0-1.4 million people while it has a 'surplus' of cities of 0.5-1.0 million population (World Bank 2004, 27). This singular pattern dissipates potential agglomeration economies of scale (Glaeser and Resseger 2009; World Bank 2009), while the location of the smaller cities (or mono-towns, reflecting their typical single-industry character) in the harsh Siberian environment reflects the central planners' insensitivity to transport costs. By the 1990s, Siberia contained one-sixth of the Russian population but despite transfers generated barely one-eighth of GDP. Both construction costs and the cost of living were high, the latter up to four times that elsewhere (Hill 2004). Many remote one-industry towns become non-viable when central planning collapsed, yet workers struggled to relocate due to the difficulty of realising the value of their homes, work-specific service entitlements and unpaid wages. Although some geographical re-balancing along market economy lines did commence in the 1990s, the resource nationalism of Putin arrested the trend through the 2000s. Commander *et al.* (2011) argue that the tardy adjustment of mono-towns reflects the cycling of hydrocarbon rent, and perpetuates a substantial under-use of capital and labour.

In addition to distorting the economy, the rent stream retards institutional maturation. Country comparisons suggest that Russian indices of governance quality are significantly lower than expected for a country with its per capita GDP (Table 2). The World Bank (2011b) quality of governance indices reveal a relatively high degree of graft that has worsened somewhat since data first became available in 1996 whereas a rapid rise in per capita income, such as Russia experienced, is predicted to reduce corruption. The stalled reform of the mid-1990s maximised scope for rent-seeking because the economy combined arbitrary

Table 2
Indices of Institutional Quality 2011: Russia and Comparator Economies

Country	PCGDP International \$2005 PPP)	Voice + account- ability	Political stability	Effective gover- nance	Regula- tion burden	Rule of law	Control of graft	Aggregate index
Kyrgyzstan	2,039	-0.96	-0.96	-0.63	-0.28	-1.29	-1.07	-5.19
Mongolia	3,620	+0.00	+0.67	-0.61	-0.28	-0.43	-0.13	-0.78
Kazakhstan	10,921	-1.14	+0.46	-0.28	-0.32	-0.62	-1.00	-2.90
Turkey	12,547	-0.16	-1.00	+0.35	+0.38	+0.10	+0.01	-1.02
Chile	13,596	+1.04	+0.61	+1.18	+1.44	+1.29	+1.50	+7.06
Botswana	13,891	+0.43	+0.91	+0.51	+0.47	+0.66	+0.97	+3.95
Russia	14,186	-0.94	-0.89	-0.39	-0.39	-0.78	-1.07	-4.46
Poland	17,352	+1.03	+1.00	+0.71	+0.97	+0.69	+0.45	+4.85
Norway	46,908	+1.62	+1.29	+1.79	+1.48	+1.93	+2.07	+10.18
Memo Item:								
Russia 1996	7,589	-0.32	-1.27	-0.55	-0.31	-0.83	-1.03	-4.31

Source: World Bank (2011). Each index scores from 2.5 to -2.5 and is based on several surveys in each country.

regulation with chaotic prices, interest rates and exchange rates (Aslund 2000). One early reform that backfired was the Law of Co-operatives enacted in 1988, which permitted the directors of SOEs to set up private firms within an SOE and transfer profits into it from the state sector. This conferred a vested interest on managers in blocking reform so as to maximise scope for rent seeking. The EBRD (2001, 81) calculates that during 1992-2000, one-third of the hydrocarbon rent accrued to private exporters who could capture it by using tax loopholes and deposit it in foreign banks for security. Meanwhile, at the regional level, oblast leaders could split rent with oligopolistic mineral firms to mutual advantage and also extract patronage and personal wealth from central reforms such as land reform.

The near-anarchy associated with the Yeltsin reforms risked the oligarchs wresting political power, prompting his successor to focus on electorate stability, (selective) law and order and restored national pride. Putin effectively arbitrated in disputes among oligarchs and proscribed entry by powerful oligarchs into politics, making an example of Yukos' leader Khordorovsky. Putin also replaced elected governors with his own nominees, which served to focus the elite rent contests on the central government, where liberals, technocrats and nationalists vied for influence, with the nationalist Siloviki (drawn largely from the security services) the most successful. Critically, the Putin government extended state control over the energy sector from hydrocarbon extraction to refining and power generation as a key source of political patronage, foreign policy influence and personal wealth (Bremmer and Charap 2006). The expansion of patronage damaged investment incentives, however. The Russian government usurped ownership in privately-owned Yukos and Sibneft and harassed major IOC investors such as Shell and BP. In addition, rent extraction by government-linked entities functions like an informal tax and combines with insecure property rights to encourage the remaining private oil companies to over-deplete their reserves and neglect investment in new reserves. The net effect has been an inability to sustain national oil production let alone to expand it (World Bank 2010).

The corollary of rent dominance has been neglect of manufacturing and SMEs in particular, despite their capacity to generate employment. Table 3 shows the Russian business environment performs poorly in terms of the quality of institutions (128 out of 142 countries); goods market competitiveness (128); financial market sophistication (127) and business sophistication (114). Rent seeking weakens property rights throughout the economy, which shortens time horizons, deters investment and lowers economy-wide welfare. For example, Aslund (2008) notes that Russia's road network remains inadequate and has construction costs three times the West because bidding for public construction projects lacks transparency and functions as a key vehicle for rent extraction. Yet the Russian economy needs to promote competitive diversification of the economy in order to reduce its reliance on ever-increasing hydrocarbon rent.

Table 3
Global Competitiveness indices 2011, Russia and Comparators (Rank in 142 countries)

	<i>Russia</i>	<i>Kazakhstan</i>	<i>Mongolia</i>	<i>Poland</i>	<i>Turkey</i>
Overall index	66	72	96	41	59
Basic requirements (31.7%)	63	62	101	56	64
Institutions	128	94	119	52	80
Infrastructure	48	82	118	74	51
Macro-economic stability	44	18	34	74	69
Health and primary education	68	85	98	40	75
Efficiency enhancers (50.0%)	55	76	105	30	52
Higher education and training	52	65	84	31	74
Goods market efficiency	128	87	92	52	47
Labour market efficiency	65	21	31	58	133
Financial market sophistication	127	121	129	34	55
Technological readiness	68	87	102	48	55
Market size	8	55	124	20	17
Innovation enhancers (18.3%)	97	114	112	57	58
Business sophistication	114	109	119	60	58
Innovation	71	116	102	58	69

Source: World Economic Forum (2011).

By 2012, the oil price required to balance the Russian budget had risen above \$120/bl, partly due to rash increases in public sector wages and transfers made during the March presidential election (Natixis 2004). During the Russian economic boom of 2000-09 trends in oil revenue, freight car production, retail sales, stock prices and imports were strongly synchronised, consistent with rent-driven development (Gaddy and Ickes 2010). Yet this rent addiction is risky because hydrocarbon rent has fluctuated wildly over the past four decades. Gaddy and Ickes (2010) calculate that in constant \$2009 dollars, Russian rent rose from around \$15 billion annually in 1970 to \$150 billion by 1975 and peaked at \$400 billion in 1981. It then fell back to \$150 billion under Gorbachev, and just below \$100 billion under Yeltsin. More recently, rent then rose sharply through the Putin presidency to exceed \$600 billion in 2008. The risk of a revenue collapse puts a premium on promoting a more efficient and flexible economy. This requires not only dynamic and competitive firms to invest in areas with potential agglomeration economies, but also a spatial adjustment through the migration of labour from regions of diminished opportunity to regions of rising opportunity.

3. THE RATIONALE FOR EARLY REFORM ZONES AND WHY EARLIER RUSSIAN ZONES FAILED

3.1. The Nature of ERZs and their Role in a Dual Track Strategy

The dual track reform strategy expressly recognises that reform creates winners and losers so that to be successful reforming governments must manage the political

opposition. In order to do this the dual track strategy postpones reform of the rent-distorted sector (Track 2), while expanding a dynamic market economy in ERZs, within which post-reform conditions immediately apply. Critically, the strategy recognises that expansion of the dynamic market sector reaches a size that can eventually absorb capital and labour from Track 2 while also building a pro-reform political constituency strong enough to co-opt erstwhile rent-seekers. The opponents of reform are then neutralised by either participating where feasible in the expanding market economy and emulating ERZ production characteristics or by joining dynamic market sector firms. In this way the dual track reform strategy allows the winners of reform to compensate the losers (Lau *et al.* 2000).

The ERZ is a critical component of the dual track strategy. It is distinguished as a second generation zone, which unlike first generation export zones, which have a mixed track record (Farole and Akinci 2011) does not rely on subsidies to start production. Although ERZs share some characteristics with growth poles as well

Table 4
Special Economic Zones, Russia Early-2009

<i>Zone Type</i>	<i>Specialisation</i>	<i>Location</i>
<i>Established</i>		
Kaliningrad	Tax free imports assembly	Kaliningrad region
Magadan	Tax free imports assembly	Magadan East Sibeia
<i>Innovation</i>		
St Petersburg	Analytical instruments	Novo-Orlovsk and Neudorff,
Tomsk	Industrial electronics, biotech	Tomsk Region
Dubna	ICT and nuclear technology	Moscow Region
Zelenograd	Micro- and nano-electronics	Moscow region
<i>Manufacturing</i>		
Lipetsk	Domestic appliances	Lipetsk region
Alabuga	Auto components + chemicals	Republic of Tatarstan
Yemelyanovo Port	Air cargo Krasnayarsk	
Ulyanovsk Port	Air cargo	Volga Area
Sovetskaya Gavan	Ship repair, fish processing	Khabarovsk region
<i>Tourism</i>		
Altay valley	Tourism	Republic of Altay
Biriuzovaya Katun	Ecological tourism, skiing	Altay Territory
Grand SPA Yutsha	Health tourism, skiing	Stavropol Territory
New Anapa	Yachts and marine sports	Krasnodar Territory
Irkutsk	Tourism, hunting, fishing	Irkutsk Region
Buryatia	Ecological tourism	Republic of Buryatia
Kurshkaya Kosa	Ecological tourism, yachts	Kaliningrad region

Source: Luihto (2009), 8.

as export processing zones, the two most common variants of first generation economic zones, they differ from them in significant ways. Basically, ERZs are geographical areas located within rent-distorted economies in which post-reform conditions (world class infrastructure, enabling services and market-friendly institutions and efficiency incentives) immediately apply. Their fundamental objective is to provide immediately the conditions of a (fully reformed) competitive market economy for investors within geographical zones inside an otherwise distorted economy.

ERZs avoid the scale problems that have plagued most growth poles, whose principal objective is to rapidly establish agglomeration economies. They also eschew the subsidies of export processing zones, which risk political capture by rent-seeking investors who exploit the short-term rents until subsidies expire and then re-locate, whether they are foreign firms or local businesses seeking to evade legitimate taxation. In addition, the ERZ is executed as part of a dual track strategy, which manages political opposition in recognition of the fact that top-down economic reform within distorted economies expands competitive markets that reduce the scope for rent-seeking activity and therefore threaten existing rent-recipients and elicit their opposition. The ERZ surmounts this risk by deferring top-down reform while growing a dynamic market economy (Track 1) that rapidly expands employment, skills, taxes and exports. In this way, major reform of the rent-distorted sector (Track 2) is postponed to avoid early confrontation with rent-seekers that a reforming government is likely to lose. The dynamic market economy can expand to a scale that dominates the economy within fifteen or twenty years, while also nurturing a pro-reform political coalition with sufficient strength to absorb and co-opt the rent-seeking interests in Track 2.

The ERZ is not a growth pole, which is a concept that has been largely discredited. Although like ERZs, growth poles seek to overcome coordination problems, growth poles go further and attempt to capture the agglomeration economies by concentrating activity geographically. In practice the optimum scale of growth poles has proved so large as to outstrip domestic implementation capacity causing the potential economic benefits to be squandered, as most arrestingly in Venezuela's Ciudad Guayana (Auty 1990, 227-248). Supporters of big push growth poles as the key component of a balanced growth strategy, such as Murphy et al (1989) fail to appreciate the real world impracticality of executing a large-scale coordinated investment programme (Auty 1994). The heyday of growth poles was in the 1960 and 1970s when they were extensively, and invariably unsuccessfully, used to revive economic activity in lagging regions.

The export processing zone (EPZ), has proved more resilient than growth poles: but it has still had mixed success, with better results in Asia and Central America than in sub-Saharan Africa and South America (Watson 2001; Jayanthakurmanan 2003). For example, cost benefit analysis for export processing zones in six Asian

countries in the 1990s identified positive returns in all of them except for the Philippines, where the Marcos government mistakenly conferred over-generous subsidies at the outset. Importantly, EPZs have not failed throughout sub-Saharan Africa. Cling *et al.* (2005) contrast the robust success of export processing zones in Madagascar with failures elsewhere in the continent such as Senegal, Cameroon, Kenya and Zimbabwe. They note, however, the importance to successful zones of stability, including a sound macro-economic environment.

3.2. Failure of First Generation Russian Export Zones

Yeltsin's transition reforms of the mid-1990s yielded disappointing tax revenue, which prompted the imposition of an onerous tax burden that proved counter-productive by repressing investment incentives and encouraging tax avoidance (Litwack and Qian 1998). The government countered by establishing special economic zones, which conferred tax breaks and incentives to foreign investment. By 2010, only two of the first round zones, at Kaliningrad and Magadan, remained operational. Many more of the original zones were closed amid accusations of corruption and abuse regarding alleged bribes paid by dubious enterprises in order to evade official oversight (Table 2). This experience tarnished the reputation of economic zones in Russia.

Nevertheless, the Putin government subsequently established four new categories of SEZs in 2006, which embraced sixteen zones. Four targeted innovation; two manufacturing; seven tourism and three port zones (Liuhto 2009). The Putin zones have Federal legal status and offer tax breaks of 25-30% along with one-stop shop administration to facilitate start-up. In addition, Russia offered a well-educated workforce that was less expensive than the advanced market economies. These potential benefits are somewhat offset by fears of corrupt administration of the one-stop shop system, reflecting a broader problem of an anti-business attitude. Moreover, capricious treatment of FDI, notably in the hydrocarbon sector, fed doubts about the security of property rights.

There is also confusion regarding the purpose of the Russian zones (Tuominen and Lamminen 2009), which seem aimed less at creating a dynamic market economy and more at establishing specialist clusters of innovatory technology. Such zones echo the growth pole experiments and, after Porter (1990) seek to resolve investment coordination failure and capture localization economies capable of altering the national comparative advantage. Yet other Russian zones appear designed as more conventional growth poles aimed at rectifying regional backwardness. Finally, the Putin zones elicit subsidies that pose potential conflicts with WTO conditions.

The St Petersburg SEZ targeted analytical instruments, aiming to attract seventy firms and 7,000 jobs by 2010. In fact, it struggled to acquire one-third the target number of firms and most are little-known firms (Liuhto 2009, Tuominen and

Lamminen 2009). This may reflect in part the fact that the St Petersburg zone competes head-on with the nearby Kaliningrad zone that is already functioning. However, the Kaliningrad zone is scheduled to close in 2016. Yet there is scope for either zone to seek spill-overs from Finnish high-tech firms. Evidence of confused planning comes from proposals for a new zone at Kaliningrad that offers: (i) a six year tax holiday followed by a 50%-reduction in the tax rate for six more years; and (ii) duty-free imports if the value added is 30% or more (15% for consumer electronics). At least €4 million must be invested over three years and the new zone will terminate in 2031. In contrast, ERZs operate without subsidies and without pre-determined time constraints: they are a catalyst that is meant to last.

The Tomsk zone attempts to create a biotechnology centre by capturing spill-over effects from the Novosibirsk technological zone. It attracted slightly more firms than St Petersburg, but new start-ups experienced deficient services and labour shortages and struggled with the narrow technical focus (Tuominen and Lamminen 2009). *Moscow's two zones target clusters in the fields of nano-technology and information technology. However, these zones should not require subsidies given the locational advantages of proximity to state-of-the-art infrastructure and external economies in the Moscow conurbation. Of the two proposed industrial zones, Lipetsk has attracted most firms and targets domestic appliances, whereas Alabuga struggles to attract plants to make auto-parts. Finally, the tourist zones are expected to function on a modest scale, like the proposed gambling zones, and mainly serve to illustrate the variegated aims of Russian SEZ policy as well as the limited success.*

The lacklustre results of past promotion of economic zones in Russia risks compromising future efforts, which should seek to link skilled researchers and workers with firms that can provide capital, market access and managerial skills. In Russia private business finances only 30% of R+D compared with 50% in the EU, 60% in the US and 75% in Japan, while Russian research is dominated by military-industrial groups that are secretive, anti-business and likely to retard innovation (Liuhto 2009). In addition, the Russian bureaucracy is cumbersome and corruption-prone. To date, many zones have been relatively isolated and poorly promoted both in Russia and abroad, while their longevity has been rendered uncertain by torturous negotiations over WTO membership, which could render some zone features illegal, raising the risk of litigation regarding investor compensation. In fact, both the first and second generation of Russian economic zones have had little appeal to the dynamic firms the ERZ seeks to attract.

ERZs do not specifically target high-tech activity or seek to revive depressed regions: they eschew picking winners in terms of product, source of investment or intended geographical market. Rather the ERZ aims to provide a competitive space in which efficient firms can employ Russian land, labour, skills and capital efficiently and viably. The ERZ seeks to rectify shortcomings in the Russian business environment by immediately providing world class infrastructure, efficient business

services supplied by commercial firms of international repute within international guarantees of rule of law and property rights. But rather than diffuse such conditions throughout the country, which would risk massive coordination failure and sabotage by rent-recipients opponents, the ERZ concentrates these attributes in specific geographical areas at sites established in response to competitive bids by regional governments. The ERZs become the catalyst for the rapid diffusion of a dynamic market economy capable of sustaining economic growth by raising productivity, an outcome most but not all resource-driven economies have found elusive (World Bank 2009).

4. THREE EXAMPLES OF SUCCESSFUL DUAL TRACK REFORM

Three instructive examples of successful dual track strategies are provided by Mauritius, China and Malaysia. Mauritius deployed cropland rent and geopolitical rent (foreign aid) to manage its reform, whereas China relied mainly on regulatory rent (transfers from government manipulation of prices). Mauritius clearly illustrates the basic strategy, which was implemented under the Malthusian threat of rapidly rising population and closure of the dominant sugar industry's land frontier. China shows reform in a larger centrally planned economy and illustrates especially well the positive externalities conferred by the expanding dynamic market economy on the inefficient state sector. Finally, the Malaysia is particularly instructive for Russia both because of its strong initial reliance on natural resource rent and the associated macroeconomic volatility and also because of the speed with which it transformed from being a rent-driven economy to a manufacturing-driven economy. All three countries transformed their lagging sectors within just fifteen to twenty years of launching their dual sector strategy.

4.1. Mauritius: How ERZs Evolve Comparative Advantage

As a small island sugar mono-crop economy, Mauritius faced a Malthusian situation in the 1960s of rapid population growth and land scarcity. Quickly appreciating the limits of industrialisation by import protection the government established an SEZ in 1971 to absorb surplus labour. It initially attracted Hong Kong investors seeking to surmount EU and US quotas and tariffs on textiles by supplying these markets from Mauritius. In addition, domestic sugar planters invested some of the sugar price windfall of 1972-75 in the SEZ to diversify away from sugar, where land scarcity blocked essential increases in minimum factory size. The planters retained most of the sugar windfall that conferred an extra 7.4% of GDP annually on Mauritius during 1972-75 (Greenaway and Lamusse 1999, 214).¹ The saving rate rose to 34% of GDP 1974-75 and investment increased by half to 23% of GDP (Findlay and Wellisz 1993). Meanwhile, Mauritius Track 2 strategy saw the government increase social spending from 6% of GDP to 10% of GDP in the sugar boom to undercut radical political opposition. Through the 1970s the dual track

strategy deployed rent to expand manufactured exports and social spending that drove per capita GDP at 6% annually and eased the social tension of the 1960s.

In the 1980s, Mauritius' SEZ joint ventures gave way to mainly domestic investment, specialising in textiles until surplus labour was absorbed and wages rose and investors relocated low value items to Madagascar. Mauritius then focused on higher value products such as textile design, spinning, weaving and knitting. At its peak the Mauritius textile industry was the second largest world producer of knitted textiles and the zone employed 60,000 workers in 500 firms generating \$1.2 billion in exports. A state enterprise provided public goods services to the SEZ including training, investment credits and negotiated trade agreements. Signalling reform of the distorted sector, the SEZ tax holiday was replaced in 1985 with a 15% profit import substitution firms were given incentives to export.

SEZ expansion drove Mauritius *per capita* GDP at 5.7% annually through the 1980s, a rate helped by rapid completion of the demographic transition, which cut population growth to 1%. Manufactured exports ended sugar's dominance, rising from one-quarter of the total in 1980 to two-thirds in 1990. SEZ employment tripled and cut unemployment from 21% to 4%, which raised wages and automatically exerted pressure to diversify into more productive activity. By the mid-1990s, Mauritian textile wages were four times those of China and Vietnam and prompted diversification of the SEZ into information technology (Chernoff and Warner 2002). Services then increasingly drove the economy: tourist arrivals quintupled to 700,000 in 2003 and financial services rapidly expanded. The government took advantage of the dynamic economy to restructure the once-dominant sugar industry as WTO rules shrank sugar's geopolitical rent 2001-09.² In summary, from 1971 Mauritius' SEZ rapidly expanded competitive manufacturing within a dual track economic reform that postponed confrontation with redistributive political forces, including the sugar unions until the dynamic sector was sufficiently strong, economically and politically, to absorb labour and capital from the once-dominant lagging sector and effectively eliminate it.

4.2. China: How ERZ Spill-Over Stimulates the Rent-Distorted Sector

Chinese SEZs were formally launched in 1980 as a controlled experiment in economic liberalization after three decades of central planning. China initially established four zones on the south-east coast to attract foreign investment: three in Guangdong close to Hong Kong and one in Fujian, close to Taiwan. The number of zones increased through the 1980s and 1990s to two hundred with varying structures ranging from free commercial zones to free industrial zones and technology parks. The southern coastal region was well endowed to sustain dual track reform because it had little obsolete industrial capital due to neglect under central planning and was close to the dynamic market economies of Hong Kong and Taiwan. Moreover, consistent with rent cycling theory (Auty 2010), the resource-

poor region's lack of resource rents incentivised provincial and local governments to grow the economy to generate employment and expand the tax base.

Foreign investment was attracted in the 1980s by lower central taxation and infrastructure investment that was gradually extended from the original reform zones to new ones established along the coast (Litwack and Qian 1998). From the early 1990s the zones lost their tax benefits although infrastructure investment continued to be concentrated and superior. In 1994 taxation was equalised across China's regions and the government shifted attention to stimulating the lagging interior. In addition, reform of large state-owned enterprises (the principal consumers of regulatory rent) intensified because they no longer dominated industrial production whereas in the mid-1980s they absorbed a disproportionately high share of capital investment and were sufficiently powerful to discourage top-down economic reform.

The dual track strategy helped transform China into a leading world exporter of manufactured goods and the principal recipient of FDI among the developing economies. The SEZs helped China attract 40% of all FDI to developing countries 1979-95, of which the coastal areas received 90% and Guangzhou alone 40%. Whereas the South Coast region accounts for 5% of China's land area and 19% of the population, by the mid-1990s it generated 32.7% of national GDP, a gain of 8.5% of GDP 1980-95 (Golley 1999). China also experimented with different forms of enterprise, including township and village enterprises (TVEs), which were basically local devices to absorb surplus rural labour in self-supporting employment. The TVEs accounted for two-fifths of China's manufactured output, mostly for the domestic market, while joint ventures generated 15% of manufactured output but half of all consumer goods and two-fifths of Chinese exports. MNCs produced half of all exports, worth 9% of GDP (Gang 2001).

The SEZ transformed the Zhu delta around Guangzhou into the second of three major Chinese agglomerations, along with the Chang delta (Shanghai) and the emerging Bohai triangle in the north-east. The agglomerations exerted beneficial spill-over effects on local state-owned enterprises (SOEs). Johnston (1999) shows that: provinces hosting one of the three agglomerations also hosted dynamic competitive manufacturing whereas provinces outside the agglomerations did not, including coastal provinces outside the three agglomerations. The agglomerations developed shares of non-SOEs and profits in excess of their share of urban population. Critically, the profitability of SOEs in the agglomeration provinces was disproportionately higher than that of SOEs elsewhere, reflecting positive spill-over effects from adjacent SEZ enterprises.

Aslund (2000) argues that the rapid extension of local competition in the coastal zone reduced scope for rent-seeking by government officials. Intensifying competition between firms in adjacent authorities shrank the regulatory

(government-created) rents, conferring on local officials an incentive to pass residual claims, from under-employed workers for example, to enterprise managers to avoid incurring onerous social support charges themselves (Li *et al.* 2000). Officials also needed to improve efficiency incentives for local enterprises so that they could bear the extra social responsibilities, which encouraged replacing SOEs with more efficient private firms (including MNCs) or profit-sensitive TVEs. The system also exerted some tax discipline since high taxes repress the incentives of management to be efficient whereas low taxes sap government interest in boosting enterprise efficiency, and hence taxes.

Finally, the SEZs' competitive spatial dynamic encouraged private firm managers to demand legislation to fully safeguard private property rights as well as independent courts to enforce contracts free from government manipulation (Li *et al.* 2000). Consistent with this, Li *et al.* (2000) show that privatisation spread faster where competition was most intense, namely in simple undifferentiated products and in the presence of falling transport costs, as in the South Coast region in the 1980s and 1990s. Privatisation occurred faster at lower tiers of government, partly because, the absence of scale economies in local enterprises, faced TVEs with intensifying competition sooner than the large national SOE monopolies, and partly because local officials had less administrative and legal leverage with which to protect firms than higher tiers of government. However, the relevance for Russia of this aspect of Chinese reform is potentially undercut by the fact that the elite in resource-poor China faced strong incentives to grow the economy through efficient use of capital and labour, rather than dissipate their effort in the politically-driven distribution of rent. Yet Malaysia shows that dual track reform can also succeed in rent-driven economies like Russia.

4.3. Malaysia: The Shift from Resource-Driven Development to Skill-Driven Growth

Like Mauritius, Malaysia realised the limits of import substitution industrialisation well before most other developing economies and its government embraced export manufacturing, despite the country's richly diversified natural resource endowment. The driving force for change was the inability of infant industry to contribute significantly to unemployment alleviation, which was seen as critical for improving the lagging welfare of the majority native Malay population. From 1968 the government began encouraging more labour-intensive export manufacturing, by offering manufacturers: reduced taxation linked to export performance and domestic content; tax deductions on export promotion expenses; accelerated depreciation where more than 20% of production was exported; and preferential rates on government export financing and insurance (Salleh and Meyanathan 1993, 9). In 1971, free trade zones were established, which were deemed outside Malaysian territory for the purpose of customs and excise duties. They

conferred duty-free imports of capital and inputs for goods processed for export. Land within the zones was leased to firms at below-market rates but firms normally built their own factories rather than leasing them. In addition, company tax relief was provided for specified periods.

The foreign investors of the 1970s were mainly from the US and Japan, but in the 1980s Taiwan rose to prominence and contributed more than one-third of Malaysia's FDI. Electronics exports initially dominated Malaysia's manufacturing expansion, which absorbed cheap labour but subsequently became technologically more sophisticated. By the late-1980s electronics generated one-fifth of all manufacturing employment and half of industrial exports. During 1982-93 manufactured exports jumped from 22% of the total to 74% and their composition switched towards telecommunications (Islam and Chowdhury 1997, 228). The growth in manufactured goods steadily reduced the economy-wide average effective rate of protection from 45% in 1969 (itself modest by developing country standards at the time) to 17% in 1987 (Edwards 1990), just sixteen years after the SEZs were established.

If the provision of employment motivated the establishment of economic zones in resource-abundant Malaysia, then contrary to the resource pessimism of Gaddy and Ickes (2010) the desire to reverse the decline in the Russian skills base and build a resilient technology-based economy may motivate efforts to establish a dynamic market economy there. ERZs create not just employment, exports and taxes, but also globally competitive firms capable of developing and harnessing new ideas to sustain welfare improvements and protect national security, goals central to the Putin regime's supporters. An effectively executed dual track strategy can achieve this.

6. BASIC ELEMENTS OF A RUSSIAN DUAL TRACK STRATEGY

Russia's first generation economic zones suffered from confused objectives and execution errors. This paper argues that second generation zones can complete Russian economic reform as part of a dual track strategy, which expressly addresses the politics of reform. The strategy postpones top-down reform of the rent-distorted economy (Track 2) and its inevitable conflict with elite rent-recipients while building a dynamic market economy in Early Reform Zones (Track 1). Track 1 also builds a pro-reform political coalition capable of co-opting and neutralising powerful rent-recipients in Track 2 within two decades. The ERZ is a geographical area within which the post-reform conditions (of a dynamic market economy) immediately apply. The three basic ERZ features are: world class infrastructure; efficient business-friendly services provided by a reputable commercial firm; and guaranteed property rights and the rule of law, backed by the IFIs. Consistent with WTO requirements the ERZ offers no subsidies. But the ERZ does require the backing of a pro-zone political coalition comprising local government leaders, business investors and ERZ

infrastructure investors, including IFIs to motivate the Federal government to ensure legal contracts are upheld.

The ERZs in Track 1 grow a dynamic market economy that over two decades gradually eclipses the rent-distorted economy (Track 2) in size. International experience suggests that the ERZs can rapidly expand globally competitive firms, employment, skills and taxes while also consolidating a pro-reform political coalition that can eventually co-opt powerful rent recipients and neutralise them. Local governments should submit competitive bids for the first ERZs, but proximity to the agglomeration benefits of Moscow, St Petersburg and south Urals suggests these regions will serve best as test start-up zones. Investor preferences, rather than government bureaucrats should determine where the second wave of ERZs is located.

The core goal of the dual track strategy is to manage opposition to reform by rent-recipients by diffusing internationally competitive firms in ERZs throughout the Russian economy until the dynamic sector is capable of neutralising rent-recipients and also absorbing into the market economy the capital and labour from the rent-distorted economy. Such a strategy offers the Russian government a practical means of accomplishing the required transition from unsustainable rent-driven growth, which is volatile and ephemeral, to the productivity-driven growth that is capable of sustaining long-term gains in welfare indefinitely.

Notes

1. Mauritius also drew geopolitical rent from favoured access to markets: the Commonwealth Sugar Agreement conferred rent averaging 4.5% of GDP annually during 1977-2000 and the Multi-Fibre Agreement yielded 0.5% of GDP in 1984 rising to 2.9% of GDP in 1996 as clothing exports grew (Subramanian and Rodrik 2003, 223 and 235).
2. Mauritian sugar production costs under the CSA were 25% above world levels and reform aimed to cut them from 40¢/kg to 26¢/kg by increasing the average factory size, mechanising cane production and releasing marginal land for tourism and information technology (IMF 2002).

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