OVERVIEW





MAIN POINTS

- 2011 witnessed a four-year maximum in terms of the volume of transactions made (990,000 sq m) and an eight-year minimum in terms of the new warehouse space commissioned (366,000 sq m).
- The share of vacant area in Class A warehouses dropped from 5% to 0.5% (as of January 2012). As of the beginning of 2012, total vacant area in the constructed premises does not exceed 50 thousand sq m.
- Rental rates for Class A facilities grew by 11% in 2011 to \$130-135 per sg m p.a.

Moscov

MOSCOW REGION WAREHOUSE MARKET REPORT: 2011 RESULTS



Vyacheslav Kholopov Director of Industrial, Warehouse and Land, Knight Frank

"Strong activity coming from the tenants coupled with the low delivery resulted in virtually all premises available in the constructed warehouses has been washed out from the market in the first half of 2011. This caused a comeback to the preliminary agreement model. As a result, most of the premises under construction were rented or purchased by the end of the year.

We expect that new projects scheduled for commissioning in 2012 would hardly be able to saturate the market, and a slight shortage of premises will be observed throughout 2012, particularly in the first half of the year. This will, in its turn, facilitate further development of the design&build market".

Main indicators	Class A	Class B	Trend*
Total supply (Classes A, B, C), thousand sq m		10 950	
Total quality supply in classes A and B, thousand sq m	4 610	1 912	
Delivery in 2011, thousand sq m	328.9	37.3	
Expected delivery in 2012, thousand sq m	700		
Lease and sale transactionsin 2011, thousand sq m	990		
Average vacancy rate, %	0.5	2.0	0
Asking rental rates, \$ per sq m per annum**	130-140	105-125	
Operating expenses, \$ per sq m per annum	35-50	25-50	
* As compared to the previous year ** Without VAT, operational costs and utility bills			

Key Events

- 2011 set a four-year record in terms of transaction volume both for Moscow, where take-up of high-quality warehouse premises stood at 990,000 sq m, and for Russian on the whole, with the total take-up volume being in excess of 1,350 thousand sq m.
- In the first half of 2011, a number of big investment transactions were made on the warehouse market in Moscow and Moscow Region: Hines Global REIT acquired a 75,000 sq m warehouse facility in Khimky from AIG European Real Estate Partners. This was the fund's first acquisition in Russia. The value of

the transactions could be as high as \$80 million.

- A pod of investors (represented by PPF investment fund and CEO of Giffels Management Russia Chris Van Riet with his partners) acquired South Gate industrial park from Grove International Partners (controlling Giffels Management Russia, the project developer). This deal was valued at some \$90 million.
- A British developer Raven Russia obtained control over three construction companies, thus virtually becoming the sole owner of Pulkovo (36 thousand sq. m of total area) as well as Noginsk-Vostochniy logistic park (230,000 sq. m

- of total area) in Moscow Region. Raven Russia used to own those projects jointly with Espro, a developer.
- Two major design&build transactions were made in 2011. PNK Group was contracted to construct a 44,000 sq m logistic centre for DIXY Group. As directed by Dixy, this will be divided into a number of temperature zones. PNK Group will also construct a 50,000 sq m warehouse for CentrObuv at PNK Vnukovo facility. This will be the largest warehouse ever to be constructed to the customer's requirements for further selling. Knight Frank provided advice for this deal.
- In April 2011, a deal was announced



to be the largest one on the post-crisis warehouse rental market: X5 Retail Group leased over 75,000 sq m at Raven Russia Noginsk logistic park.

- Another record was set in the 3PL segment: Alidi leased an area of 40,000 sq m at PNK Chekhov. This appeared to be the largest lease transaction made by a logistic operator since 2008. Knight Frank provided advice for this transaction.
- When discussing an order "On Adoption of the Investment Plan – "Development of Moscow Region's Transport and Logistic Network in 2011-2015", a decision was taken by the Moscow Region Government to construct at least 20 logistic centres along the Central Ring Road that is under construction.

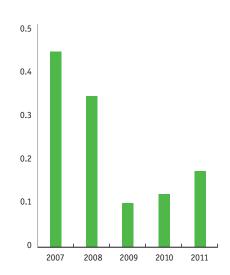
Supply

As of end of 2011, total high-quality warehouse area in Moscow and Moscow Region stood at 6,522 thousand sq m. 2011 set an 8-year antirecord in terms of the volume of new high-quality warehouses commissioned –

366,000 sq m Class A warehouses accounting for 90% of this figure. This resulted from a lower demand for warehouses in 2008-2009 and, consequently, fewer speculative warehouses constructed.

After demand started to recover in late 2010, investors and developers would announce their plans to construct new speculative warehouses and resume suspended projects. However, commissioning of many facilities was moved to 2012: out of 600,000 sq m announced, slightly more than 60% were actually commissioned. As a result, a substantial growth in new premises can only be expected in 2012.

Average warehouse construction costs \$ persq. m (incl. VAT)



Source: Knight Frank Research, 2012

roperty Name	Property Address	Total area, sq m	Developer
NK-Vnukovo	Borovskoye Hwy, 20 km from MKAD	80,000	PNK Group
aven Russia-Klimovsk	Simferopolskoye Hwy, 21 km from MKAD	55,000	Raven Russia
NK-Chekhov, Bld 8	Simferopolskoye Hwy, 49 km from MKAD	39,500	PNK Group
nfrastoy Bykovo	Novoriazanskoye Hwy, 19 km from MKAD	34,500	Infrastoy Bykovo
Belaya Dacha	Novoriazanskoye Hwy, 4 km from MKAD	32,000	Hines International, Belaya Dacha
1SK-SU9, phase 3	Novoriazanskoye Hwy, 1 km from MKAD	22,500	MSK-SU9
(rekshino	Between Minskoye Hwy and Kievskoyr hwy, 24 km from MKAD	20,000	RosEvroDevelopment
arlo Pazolini	Kievskoye Hwy, 3 km from MKAD	20,000	Carlo Pazolini
hlebnikovo	Dmitrovskoye Hwy, 8 km from MKAD	20,000	Khlebnikovo

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2011 INDUSTRIAL AND WAREHOUSE MARKET

Moscow



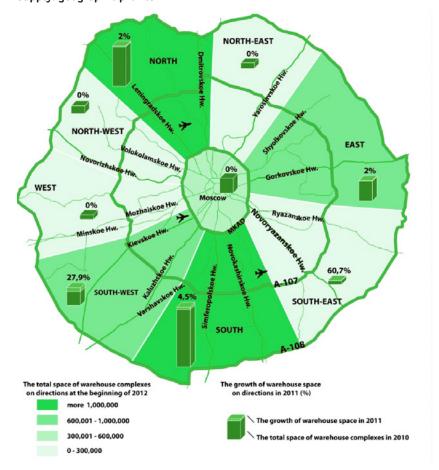
Another consequence of the 2008-2009 situation was reduced number of developers offering warehouse facilities. As a result, the bulk of new warehouses (72%) were sold by larger developers specialized in developing industrial and warehouse complexes. They constructed at least 50 thousand sq m of high-quality warehouse premises for lease or sele.

This situation was driven by several factors. Firstly, it is more difficult for new players to raise low interest rate financing for their projects, and this inevitably increases construction costs. Secondly, larger developers can cut construction costs using their expertise and scale effect. They can use most effective solutions while maintaining high quality. Mature developers have construction costs that are on average 10-20% lower than those of new market players. Thirdly, construction costs started to grow in 2011 after the downturn observed in 2009 caused by cheaper construction materials and lower labour costs. By the end of 2011, construction costs reached their precrisis level (\$800-850 per sq m, incl. VAT).

Most high-quality warehouses were concentrated in the north and south (over 56%). Just like in 2011, greatest growth in new premises offered came from the south and south-west. In addition to this, quite a lot of new supply came from the south-east with total volumes growing there by over 60%.

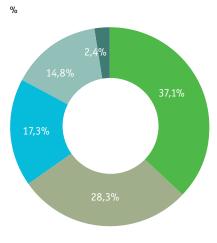
One could also claim that potential investors are also getting more and more interested in the warehouses segment. In 2011, investments totalled almost \$400 million. Major investors were Raven Russia,

Supply: geographic profile





Transactions as broken down by renter or buyer profile



Retailers
Other manufactors and distributors
Third party logistics providers (3PL)
FMCG (Fast Moving Consumer Goods)

Other 0

Source: Knight Frank Research, 2012

of UK, and Hines Global REIT. Potential investment opportunities available on the market in 2012 could be valued at over \$1 billion.

Demand

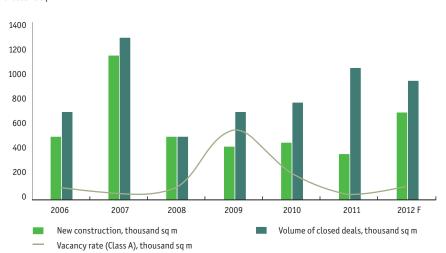
Throughout 2011, there was a high demand for high-quality warehouses. By the year-end, the total volumes of transactions made in Moscow Region exceeded 990,000 sq m (85% of facilities belong to Class A) which is the past four years' maximum. This is a 29% increase compared to 2010 and an almost twofold growth over 2008.

Even though take-up appeared to be slightly higher in 2007 than in 2011, one could claim that market recovery is already the case with the market getting more "mature": most companies have already moved to facilities of higher quality.

The market situation caused a rapid reduction of vacant area. This was partially caused by the low volume of new area commissioned: developers were not prepared for such a strong growth in demand with virtually no projects launched in 2009-2010. As a result, the share of vacant class A warehouse area fell to 0.5% (below 50,000 sq. m). Moreover, some premises under construction have already been reserved under preliminary lease agreements. This was caused by the fact that 65% of the contracts during the past half-year

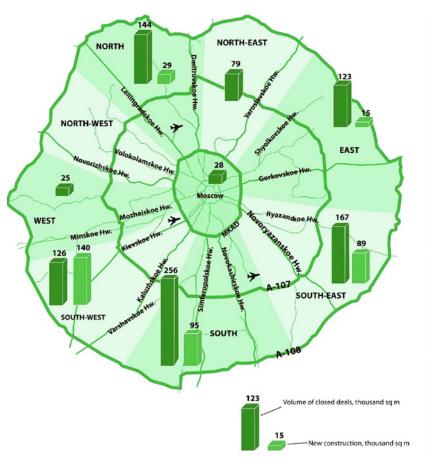
Demand, absorption and vacant area

thousand sq m



Source: Knight Frank Research, 2012

Take-up: geographical profile



2011 INDUSTRIAL AND WAREHOUSE MARKET

Moscow



were made while under construction.

Most transactions have retail operators involved who are traditional champions in terms of warehouse take-up, having won this championship from logistic operators in 2009. It is worth mentioning that the share of logistic operators grew over the previous period (2009-2010) to 166,000 sq m.

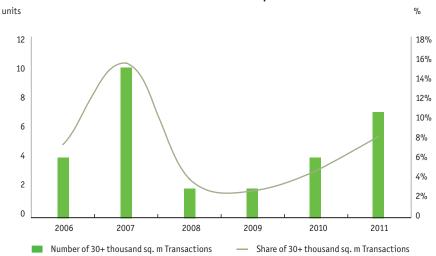
Geographically, greatest take-up volumes were recorded in the south and south-east. This is partially caused by more dense concentration of new premises offered to the market in 2011.

All in all, total volume of transactions made in Moscow Region in 2011 appeared to be three times higher than the area commissioned. This trend was valid for all geographical areas, except for the south-west, a champion in terms of space commissioned in 2011; the delivery was slightly ahead of absorption.

2011 witnessed more major transactions (over 30,000 sq m) made which is also an indicator of market recovery and positive trends. Particular attention should be paid to the largest transaction for the past four years – rental agreement for a warehouse at Noginsk-Vostochny logistic park (Raven Russia acting as a developer) by X5 Retail Group. Total area rented amounted to 75,700 sq m.

Another important trend observed in 2011 was the highest number and volume of design&build transactions. This was caused primarily by strong reduction of vacant area available at speculative warehouses. When customers were seeking to rent big warehouses, they would face a problem of short supply. Additionally, a number of companies started to place specific requirements for the premises rented. Should they fail to find a proper warehouse, they would opt for "design&build" construction. Out of five transactions over 40,000 sq m facilities commissioned made in 2011, two ones followed a design&build pattern which is a kind of record for this market as there has

Number and share of the transactions over 30,000 sq m



Source: Knight Frank Research, 2012

Growth of the share (total area) of design&build transactions

25% 20% 15% 10% 5% 0 2006 2007 2008 2009 2010 2011 2012 П



been no such big deal of the kind before.

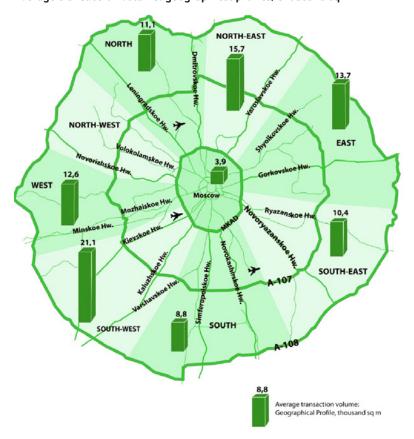
Those projects will be constructed at PNK-Vnukovo warehouse comlex in the south-west. Those deals are expected to raise the average transaction volume in this area to 21,000 sq m, twice higher than an average transaction made in Moscow and Moscow Region (approx. 11 thousand sq m). Another record set by the market in 2011 was the volume of area sold with its share reaching 15.5% (143 thousand sq. m), a nearly fourfold increase year-on-year.

Commercial Terms and Conditions

2011 appeared to be more of the "handlords' market". A substantial growth in demand and limited supply helped owners to raise rental rates throughout the year. It is more and more difficult for customers to negotiate. As a result, by the beginning of 2012, asking rental rates for Class A warehouses were in the range of \$130-135 per sq m (without VAT and operational costs). We expect that asking rental rates will grow slightly in the first half of 2012 to \$135-140 per sq m and will stabilize in the second half of the year.

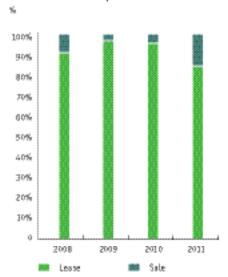
As compared to most European countries, Russia is one of the few nations where rental rates for class A warehouses demonstrated a steady growth throughout 2011. As of the beginning of 2012, Moscow ranked seventh number among European cities in terms of

Average transaction volume: geographical profile, thousand sq m



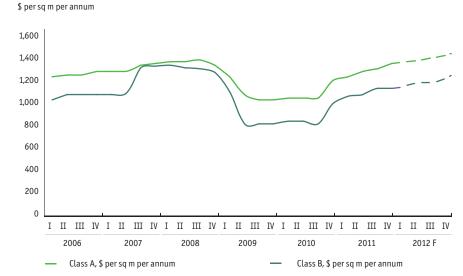
Source: Knight Frank Research, 2012

Rental and sale-and-purchase transactions



Source: Knight Frank Research, 2012

Warehouse rental rate profile



2011 INDUSTRIAL AND WAREHOUSE MARKET

Moscow

rental rates. Given the compllicated economic environment in Europe and current dynamics, one could expect Moscow to become one of the Top 5 European cities in terms of warehouse rental rates.

Lease agreements were usually made in 2011 in Moscow and Moscow Region for a term of 5-7 years. Supply of high-quality warehouse premises is primarily focused on companies ready to enter into long-termlease agreements (5 and more years) at rates nominated in US dollars and total area of 5,000 and more sq m (more preferably, 10,000 and more sq m) – for Moscow and St. Petersburg regions. A more convenient option for a tenant seeking a warehouse for a shorter period of time is to cooperate with logistic operators rather than lease.



We expect that most of the premises will only be offered to the Moscow Region market in the second half of 2012. A total of some 905 thousand sq m of new speculative warehouses has been announced to be commissioned during this year, and we believe that about 700 thousand sq m will actually be supplied.

2012, and its first half in particular, will continue to demonstrate deficit of high-quality supply causing most of the transactions to be made by way of preliminary lease agreements for premises under construction. Given a similar level of activity coming from tenant and quite a stable political and economic situation, vacant area will not exceed 1-2% by the end of 2012, meaning that new warehouse projects could be expected this year, particularly those implemented by large developers.

Rental rates will continue to slightly grow in the first half of 2012. However, in spite of the low volumes of vacant area available, this will be balanced by the tenants' limited payment capacity. In the second half of the year, the rates will stabilize as a lot of supply will emerge. As a result, asking rental rates for Class A warehouses could average \$135-140 per sq m (without VAT and operational costs) by the end of 2012.

Moreover, more design&build transactions are expected to be made. We assume that 20-25% of total absorption volumes will have to do with construction of warehouses to the customer's specific requirements.



3PL Market

In 2011 was recorded the higher share (17%) of logistic operators in the total volume of transactions made, 5 percentage points higher than in 2010 (166,000 vs. 113,000 sq m). This is an indicator of recovery of the 3PL market that suffered most during the crisis.

Positive changes were caused by a number of factors. Firstly, there is a remarkable growth in demand from existing customers. Secondly, some companies cannot lease their own warehouses due to the shortage of warehouse area available, and they engage 3PL operators.

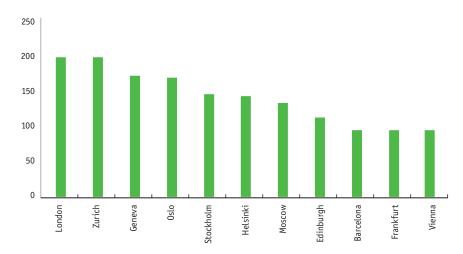
In this situation, logistic operators can select customers that are most reliable.

Activated demand for 3PL services triggered increased costs of freight storage and handling offered by logistic companies. Another factor contributing to higher logistic costs was higher warehouse rental rates.

We expect further growth of prices in 2012, primarily driven by higher warehouse rental rates. This growth can reach 7-10% by the end of the year. Another reason of increasing prices for 3PL services is the grouth of the rental rates for the warehouse spaces.

European cities in terms of warehouse rental rates for Class A warehouses

\$ per sq m per annum





Land Market

Currently, great demand for commercial land comes from large retail operators and companies planning construction of manufacturing and logistic facilities.

Large retail companies are focused on the land sites located along Dmitrovskoe, Yaroslavlskoe, Simferopolskoe, Mozhaiskoe, Minskoe, New Riga and Volokolamskoe highways, and in particular – on the right sides of those highways (if driving from Moscow) and within 20 km off the Moscow Ring Road.

In addition, there is a high demand for land intended for commercial construction (especially, for industrial purposes) along New Riga, Leningradskoe and Dmitrovskoe highways. Construction of logistic facilities there is driven by the cargo traffic coming from St. Petersburg and Finland. Industrial land offered there is very limited causing unsatisfied demand.

It is worth noting that a number of specialized developers engaged in warehouse construction are currently considering options for expanding their own land assets to support their construction activity in 2013-2015.

The market situation is improving, but the average land price is still comparable to 2009-2010 after the fall in early 2009. The price for industrial land plots situated 10-30 km off the Moscow Ring Road averages \$700,000 per hectar. For land plots located on the first line along major highways within 10 km off the Moscow Ring Road, the price varies in the range of \$1-2 million per hectares. One of the transactions made in 2011 was acquisition of a 14 hectar land plot along Yaroslavl highway, 15 km off the Moscow Ring Road. The price was \$825,000 per hectar.

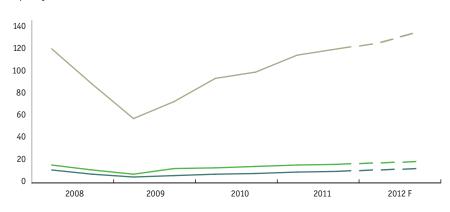
One could expect further increase in the volume of land plots sold at the back of quite a favourable market situation: land prices are quite low, and many companies have sufficient financial resources in place to invest in their own development on the whole and acquisition of land in particular. We expect an increase in the volumes of land transactions with a slight price growth (5-10%) in the first half of 2012.

Industrial Park Market

For several recent years, quite a lot of attention has been paid both by the market players and government authorities to a relatively new type of industrial real property – industrial parks that are territories organized specially for housing new manufacturing facilities. They have appropriate utility lines in place,

3PL services price dynamics

rub. per day



- Materials-handiling operations, rub. for 1 p/s per day
- Storage, rub. for 1 p/s per day
- Piking, rub. per 1 box

Source: Knight Frank Research, 2012

%

Share of logistic companies in total take-up

50% 40% 30% 20%

Source: Knight Frank Research, 2012

2008

2009

2010

2011

2007

0

all related infrastructure as well as proper administrative and legal environment. These are managed by specialized companies. Total area occupied by Russian industrial parks (both existing and projected) amounts to some 62,800 hectares.

Industrial parks are mostly greenfield projects (69%), i.e. prepared sites that used to be, as a rule, agricultural farming land, with or without related utility lines available. Brownfield industrial parks, i.e. sites used before

Share of brownfield and greenfield industrial parks

31%
69%
Brownfield Greenfield

Source: Knight Frank Research, 2012

for industrial, construction or other purposes, account for 31%.

It is worth mentioning that industrial parks are currently undergoing a certification process with the Russian Industrial Park Association. With effect from 2012, the Russian Ministry of Economic Development will not accept requisitions for state budget financial support from industrial parks lacking such a certificate.

OVERVIEW



Europe Austria Belgium Czech Republic France Germany Ireland Italy Monaco Poland Portugal Romania Russia Spain Switzerland The Netherlands UK

Africa Botswana Kenya Malawi Nigeria Tanzania Uganda Zimbabwe Zambia South Africa

Ukraine

Middle East Bahrain UAF

Asia Pacific Australia Cambodia China India Indonesia Malaysia New Zealand Singapore South Korea Thailand Vietnam

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