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International Trade Liberalization Impact on the U.S. Peanut Industry

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Abstract: The acceptance of the NAFTA and GATT trade agreements will impact the U.S. peanut industry. This paper examines trade distorting policies and evaluates the effects of trade liberalization on peanut producers, shellers, manufacturers, and U.S. consumers of peanut products. Decreasing marketing quotas and support prices are expected to reduce gross income to peanut farmers, revenues to local governments, and tax bases in rural communities. Reduced peanut production would impact buyers/shellers through greater price variability and risk, changes in marketing methods and contractual relationships, and increased emphasis on buying high quality peanuts. Manufacturers will have additional sources for peanut supplies. Consumers' savings from decreases in raw peanuts prices are expected to be less than those from switching to lower-priced peanut products.

Key Words and Phrases: Peanut industry, Peanut production, Peanut consumption, International trade, NAFTA, GATT, Trade liberalization.

Trade liberalization under the proposed trilateral North American Free Trade Agreement (NAFTA) and/or the multiple country General Agreement on Tariffs and Trade (GATT) will impact the various sectors of the U.S. peanut industry in differing ways. Progress on the trade negotiations has been slow. Canadian legislators have approved NAFTA. Mexico, the originator of the first NAFTA discussions, will approve it. Currently, President Clinton has stated he will not introduce legislation implementing the NAFTA accord until some side issues are settled. These issues are establishing an adjustment process to provide protection against an unexpected surge in imports and defining the power countries may hold to deal with violations of domestic labor and environmental laws.

GATT discussions, especially on agriculture, have been in a holding pattern since the United States/European Community (EC) Blair House agreement on internal supports and export subsidies. At the Clinton administration's request, the House and Senate have passed legislation granting fast track authority for the Uruguay Round of GATT until

December 15, 1993. Lingering issues in agriculture, intellectual property rights, and dumping could delay a GATT agreement.

These new trade agreements are generally designed to 1) achieve greater trade liberalization among the trading countries and 2) bring all measures affecting import access and export competition under stricter rules and disciplines. Acceptance of the trade agreements would particularly affect agricultural commodities selling above world market prices in a country's domestic market.

The free trade argument depends on the concept of comparative advantage. National and global economies would be most efficient if countries produced and exported those goods with relatively low production costs. If this practice was followed, a country could then increase its income and consumption by trading goods relatively cheaper to produce for those that are more costly (Dixit, Herlihy and Magiera).

The objectives of this paper are to 1) identify trade distorting policies in agriculture with particular reference to the peanut industry, 2) evaluate the effect of trade liberalization provisions on the various sectors of the U.S. peanut industry, and 3) estimate the probable impact of trade liberalization on U.S. consumers of peanut products.

Trade Distorting Policies in Agriculture

Various forms of trade distorting policies affect world trade of agricultural commodities. Producer subsidies result in distorted prices relative to world prices at the producer level. Producer subsidies include price supports and deficiency payments used primarily to enhance producer income. In some countries, production costs such as fertilizer, seed, credit, water and electricity are subsidized. Supply management with the use of production quotas is used in several countries including the United States, the EC countries, Canada and Japan.

Export subsidies are used by many countries to provide incentives to export agricultural commodities and capture market share in the world market. Products are sold for export at world prices with the exporter being paid the difference between the higher domestic price and the lower world price in the form of a government subsidy. Other forms of export subsidies include export credit guarantees, export incentive and enhancement programs and government-funded food donations. Export subsidy programs are used frequently to reduce surpluses of agricultural commodities (Sharples).

Import quotas are used largely to protect price support and production quota programs. By limiting imports, domestic prices can be maintained

above world prices. Tariffs and licenses can also be used as a protective method to limit imports. In some countries, import quotas and tariffs are used for food security purposes to assure that a given proportion of the food supply will continue to be produced within the country.

Sanitary and phytosanitary rules and regulations are another means to prevent imports of agricultural commodities. These may include regulations against chemical compounds used on plants such as the growth regulator daminozide (Alar), chemical and mechanical treatments, or additives to animals such as bovine somatotropin (BST), and natural food compounds, such as aflatoxin in peanuts, that may cause illness in humans.

Trade Distorting Policies Affecting Peanuts

Peanuts are produced in a very few states and are relatively small in national economic importance, making up less than two percent of cash receipts of all crops produced in the United States. On a regional basis, peanuts make up about 11 percent of cash receipts of all crops in Alabama, Florida and Georgia, about 9 percent in North Carolina-Virginia, and only 5 percent in Oklahoma-Texas. In some peanut-producing counties within a state, peanuts make up more than 50 percent of cash receipts of all crops (Carley and Fletcher 1993a). In terms of the consumer food basket, less than ten pounds per capita are consumed annually. Thus, questions may be asked regarding the reasons for so much concern about trade negotiations affecting the U.S. peanut industry.

Peanuts fit into the trade distorting policies occurring in the world. For example, the United States and some other countries, particularly Japan and other Pacific Rim countries, have import quotas on raw peanuts and some peanut products, as well as various levels of import tariffs. The United States has both a production quota and price support program. There are several types of production subsidies in Brazil, India and many African countries (Lu). China and India use an implicit government policy that depends on the production/consumption balance and/or currency exchange policies.

The increased emphasis on peanut quality, especially the aflatoxin level and/or chemicals used on or contained in peanuts and peanut products, is becoming a critical factor in trade. With no scientific basis, some EC countries are enforcing lower and lower levels as acceptable. For example, aflatoxin limits have been reduced recently to five ppb with plans to reduce the limit to zero

NAFTA and GATT Provisions Affecting U.S. Peanuts

With the market access provisions, the peanut import quota of 775 mt will be eliminated and an agreed upon quantity of peanuts will be allowed to be imported free of tariffs. Under NAFTA, Mexico will be allowed to export 3,377 mt into the United States duty-free in the first year (Table 1). All imported peanuts must be produced in Mexico. Duty-free quantities will increase at the rate of 3 percent compounded annually. By the year 2000, the duty-free imports will increase to 4,032 mt. Under GATT, the duty-free quantity in the first year amounts to 3 percent of domestic consumption in the base period 1986 to 1988, or 33,770 mt. The duty-free quantity increases annually to 5 percent of the base period domestic consumption in the sixth year, or 56,283 mt.

Shelled peanut imports in excess of the duty-free quotas would have a 123 percent *ad valorem* tariff in the first year under NAFTA. The tariff rate would decrease 3 percent annually thereafter for five years, and then decrease in a straight line to zero in the fifteenth year. Under GATT, the tariff equivalent was set equal to the difference between the average U.S. domestic price and the average world price in the base period 1986 to 1988. This tariff is reduced straight line annually for six years to a 15 percent total reduction.

Table 1.

Current Import Quota and Minimum Access Imports of Peanuts Under NAFTA and GATT, U.S., 1994/1995 to 1999/2000

Marketing Year	Current Import Quota	Minimum Access Under	
		NAFTA	GATT
-----Metric Tons-----			
1993/1994	775	-	-
1994/1995	-	3,377	33,770
1995/1996	-	3,477	38,270
1996/1997	-	3,583	42,772
1997/1998	-	3,690	47,275
1998/1999	-	3,801	51,777
1999/2000	-	3,915	56,283

Source: Office of the U.S. Trade Representative.

Assuming NAFTA and GATT would become operational beginning August 1 of the 1994-1995 marketing year for peanuts, the estimated tariff rates for the first six years of both agreements are shown in Table 2 and Table 3. The difference in the two initial tariff rates is \$89 mt, with GATT 11 percent lower than NAFTA. With a world price of \$600 mt, the world price plus tariff would become equal to the current support price in the third year of NAFTA (Table 2). Under GATT, a world price of \$600 mt plus the tariff would be \$52 mt less than the support price in the first year (Table 3). At a \$750 mt world price, the import price would be about equal to the support price in the sixth year of GATT. Figure 1 shows the shelled peanut price in Rotterdam for U.S., Argentinean and Chinese imports since 1984. As indicated, there has been considerable price variability and prices from other countries have been in the range of \$600 mt to \$700 mt several times.

Table 2.

Estimated Tariff and Import Price Under NAFTA Compared to the Domestic Support Price, Shelled Peanuts, U.S., 1994/1995 to 1999/2000 Marketing Years

Marketing Year Beginning Aug. 1	Estimated Tariff ^a	Tariff Plus World Price of		Support Price ^b
		\$600	\$750	
-----Dollars/Metric Ton-----				
1994/1995	783	1,383	1,533	1,346
1995/1996	763	1,363	1,513	1,346
1996/1997	743	1,343	1,493	1,346
1997/1998	723	1,323	1,473	1,346
1998/1999	703	1,303	1,453	1,346
1999/2000	683	1,283	1,433	1,346

^aOffice of the United States Trade Representative.

^bSupport price for quota peanuts of \$674.93 per ton converted to cleaned shelled peanuts. U.S. International Trade Commission.

An interpretation of the proposed GATT agreement along with the Blair House Agreement indicates that the U.S. price support level for peanuts will not require a reduction. Furthermore, NAFTA does not address the U.S. peanut support level. However, the price support program will be affected

indirectly. Neither agreement currently has import surge protection for peanuts. The possibility exists that world prices could be at the level at which imports could enter the United States unabated. This would impact the current domestic peanut program to the point that the domestic support price would need to be adjusted down and the domestic quota levels possibly decreased. This scenario is more likely to occur under GATT than under NAFTA.

Table 3.

Estimated Tariff and Import Price Under GATT Compared to the Domestic Support Price, Shelled Peanuts, U.S., 1994/1995 to 1999/2000 Marketing Years

Marketing Year Beginning Aug. 1	Estimated Tariff ^a	Tariff Plus World Price of		Support Price ^b
		\$600	\$750	
-----Dollars/Metric Ton-----				
1994/1995	694	1,294	1,444	1,346
1995/1996	676	1,276	1,426	1,346
1996/1997	658	1,258	1,408	1,346
1997/1998	641	1,241	1,391	1,346
1998/1999	623	1,223	1,373	1,346
1999/2000	605	1,205	1,355	1,346

^aDunkel.

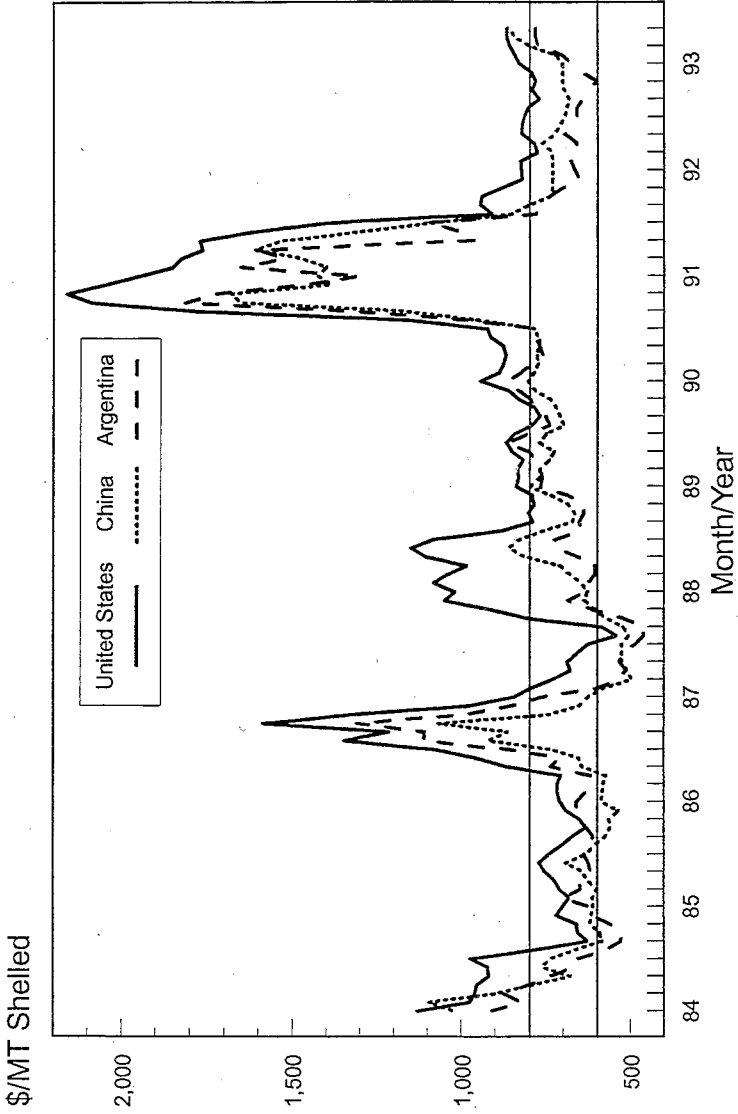
^bSupport price for quota peanuts of \$674.93 per ton converted to cleaned shelled peanuts. U.S. International Trade Commission.

Economic Impact on Peanut Farmers

The minimum access imports as shown in Table 1 could result in a requirement to decrease the domestic marketing quota to offset the imports. If the quota was not decreased, then the quota replaced by imports might result in a loss to the U.S. government through the Commodity Credit Corporation (CCC) purchase program. At the current quota support price of \$200 per ton, this loss could range from near \$2 million under the first year of NAFTA to almost \$30 million in the sixth year of GATT.

If the quota was decreased to offset the imports, each 1 percent change in the current quota at the current support price equals about \$10 million.

Figure 1.
Monthly Peanut Prices, cif Rotterdam, Runners 40/50, 1984-1993



Source: *Public Ledger's Commodity Week*, various issues.

Therefore, the decrease in quota could result in a reduction in gross income to peanut farmers ranging from \$2.5 million under NAFTA in the first year to \$42 million under GATT in the sixth year. If domestic use would increase at least equal to imports, then the income decrease would be less.

With the tariff schedules indicated in Table 2 and Table 3, peanut imports in excess of minimum access could become an increasing factor soon after the agreements are in force, especially if the domestic support price for quota peanuts remains at the current level. Furthermore, under the peanut program of the 1990 farm bill, the support price would increase if the cost of production increases. Therefore, the import price could become less than the support price even earlier.

At the current quota support price and quota level, a 1 percent change in the support price equals \$10 million. Decreasing the support price \$50 per ton to meet the potential import price would decrease gross income to peanut farmers about \$75 million. Furthermore, about 60 percent to 65 percent of the farm income reduction would occur in the southeastern U.S. peanut production region.

If the trade agreements are approved, the peanut program would probably require modification. The domestic marketing quota for peanut farmers could remain part of the program, but be adjusted for peanut imports. The support price program could remain, but the support price would need to be decreased to remain competitive with import prices under tariffication. The price adjustment needed under NAFTA would be less than under GATT.

With a peanut program adjustment scenario, including both a quota reduction as a result of minimum access imports and a price support decrease to remain competitive with import prices, the decrease in gross income to peanut farmers was estimated (Table 4). In the first year of NAFTA, gross income was estimated to decrease \$2.5 million, but the income loss could increase to about \$60 million in the sixth year. Under GATT, the income decrease was estimated at \$70 million in the first year and the increase to \$164 million in the sixth year. In six years, the total income decrease under GATT was estimated to be about \$700 million.

Decreasing quota prices and quantities may have other impacts on farmers and peanut farm communities in addition to decreasing income. There may be a further decrease in the number of farmers producing peanuts. With less income per ton from quota peanuts, quota rental values may decrease. This would have a serious income impact on retired land owners who rent quota out as a source of retirement income. Also, there would be an income impact on the smaller quota owners who may be renting quota out to the more efficient peanut farmers. For those who rent quota in, lower rents would reduce rental costs. At some level of lower prices for quota peanuts,

renting in quota may become unprofitable resulting in some quota peanuts not being produced. Thus, there may be a need to develop some type of decoupling program to compensate quota owners for the losses in quota values.

Income decreases and lower quota values in the longer term could result in decreases in farm land values, thus affecting the rural area tax base. Also, lower incomes to farmers would have an income multiplier impact on local communities in which peanuts are a primary source of farm income. Using a conservative multiplier of 2.1, there would be a \$1.4 billion loss in economic activity in local communities over six years of GATT (Kriesel and Kraybill). Given the potential magnitude of the loss, some type of community development program may need to be initiated in order to provide a more orderly transaction.

Fewer peanut farmers and lower peanut production may lead to different types of marketing systems for peanuts such as farmer-organized peanut marketing cooperatives. Price discovery and marketing methods may change. There may be the need to develop improved pricing methods with known price incentives to reward farmers for producing high quality peanuts. Price discounting for poor quality is negative while paying price premiums denotes a positive approach.

Table 4.

Estimated Change in Gross Income to Peanut Farmers Under NAFTA or GATT

Year	NAFTA	GATT
	-----Million Dollars-----	
1st	-2.5	-70.2
2nd	-2.6	-89.4
3rd	-2.7	-108.5
4th	-23.6	-126.1
5th	-41.6	-145.0
6th	-59.6	-163.7
Total	-132.6	-702.9

Source: Tables 1, 2, and 3.

Economic Impact on the Buyer-Shellers Sector

With the acceptance of NAFTA and/or GATT and no change in support prices, peanut imports in addition to minimum access will increase over time. This would lead to the need for fewer peanuts to be produced in the United States which could vary by regions depending on peanut types. Lower prices could lead to a shift in the quantity of peanut production by region. Over time, production changes could result in the need for relocation of buying points and even shelling plants as well as a reduction in both.

If support prices are decreased over a series of years, there would be increased pressures by shellers to sell each year's crop promptly since the next year's price would be lower. Price variability may increase, especially in below average production years. Imported peanuts and increased price variability will increase price risk to buyer-shellers. Increased price risk may lead to further consolidation of the shelling sector and/or to increasing vertical integration to spread price risk. Vertical integration back to the farmer-grower through long-term contracts that include contractual specifications on peanuts could become commonplace. Specifications may include increased emphasis on quality including pricing incentives for delivery of high quality peanuts.

Marketing methods and relationships may change. Newer technologies such as computerized marketing to aid especially in price discovery, improved forward pricing strategies, and a futures market for peanuts may be adopted. The peanut market may acquire more price volatility with increasing price risks impacting on certain sectors of the marketing chain lending itself to a futures market. However, one feature of a futures market that could be lacking in the peanut industry is annual sales in the billions of dollars. The peanut market by most standards would be characterized as a thin market or a market that may have few daily transactions on a regular basis. However, on a worldwide basis, peanut futures may be a possibility.

Economic Impact on Manufacturers

If trade agreements open the U.S. market to imported peanuts, manufacturers would have additional sources from which to obtain raw peanut supplies. Emphasis could shift to obtaining the minimum-access, lower-cost peanuts before competitors can buy them. The multinational peanut manufacturers in the United States probably would have a competitive edge over the smaller domestic peanut manufacturers in obtaining the lower cost foreign peanuts. If this occurs, economic theory suggests the smaller firms

will be at a competitive disadvantage, potentially resulting in the industry's becoming more concentrated in the longer term.

With peanuts produced in other countries, a manufacturer will need to determine the value of those peanuts relative to the value of U.S. peanuts. How much more are U.S. peanuts worth? Obtaining reliable quality and delivery will be of utmost importance. Also, manufacturers will be interested in determining the blending of imported peanuts with U.S. peanuts to maintain consumer acceptance.

Manufacturers will be facing more price variability and, thus, additional price risk. With a decreasing support price, they will need to adjust to a price decreasing raw product. This would lead to the desirability of maintaining minimum inventories of the current year's peanuts and products since next year's raw product costs may be lower. With peanut sources increasing and raw product prices possibly decreasing, manufacturers would be dealing with a changing competitive environment. As with shellers, there may be the need to develop different pricing methods and marketing strategies.

Economic Impact on the Consumer

Finally, the impacts of raw product cost changes on peanut product prices and consumption are important to evaluate. At the support price level in 1992, the estimated farm value of peanuts in an 18-ounce jar of peanut butter was \$.56. The retail price averaged \$2.18, resulting in a price spread of \$1.62 (Table 5). The estimated farm value of peanuts in a 12-ounce package of snack peanuts was \$.38. With an average retail price of \$2.74, the price spread was \$2.36.

Decreasing the support (farm) price to \$500/ton would decrease the farm value in a jar of peanut butter by about \$.15. If this raw product price decrease was passed on in its entirety to the consumer, the retail price would decrease to \$2.03 per jar. With the same raw product price change at the farm level, a 12-ounce package of peanut snacks could decrease about \$.10. Economic theory suggests that in a market situation with few sellers and many buyers, the decrease in costs probably would not be passed on in its entirety. With lower raw product prices, there would be some savings in inventory holding cost that might result in a small price spread decrease. However, processing, packages, transportation, labor and other costs would not change. Estimated cost and retail price changes for a series of price changes at the farm level are shown in Table 5.

A study by Zhang, Fletcher and Carley estimated quality-price-income relationships for peanut products. The elasticities from that study were used

to estimate the changes in peanut use resulting from decreasing prices at the farm level.

With a change in the farm price from \$675/ton to \$500/ton, the wholesale price of shelled peanuts was estimated to decrease about 22 percent (Table 6). The response in peanut use in peanut butter from such a price change was a 3.5 percent increase and in snack peanuts use about a 5 percent increase. These results indicate that with a substantial decrease in farm value of \$175/ton (about 25 percent), retail prices and peanut use would not be expected to change more than in the range of 4 percent to 7 percent. This type of relationship is expected when the product prices are very price inelastic.

Table 5.

Estimated Farm Value and Retail Price of Peanut Butter and Snack Peanuts

Support or Farm Price (\$/ton)	18-Ounce Jar of Peanut Butter		12-Ounce Package of Snack Peanuts	
	Farm Value ^a	Retail Price	Farm Value	Retail Price
	-----Metric Tons-----			
700	.581	2.20	.391	2.75
675	.560	2.18 ^b	.377	2.74 ^b
600	.498	2.12	.335	2.70
550	.457	2.07	.308	2.67
500	.415	2.03	.280	2.64
400	.332	1.95	.224	2.59
350	.291	1.91	.196	2.56

^aEstimated from Dunham.

^bFrom Carley and Fletcher, 1993b.

Conclusions

The acceptance of the NAFTA and GATT trade agreements would impact on the peanut industry. Import quotas would be dropped in exchange for a minimum duty-free quantity of imports increasing over time plus a tariff on imports above minimum access. Based on published tariff schedules and a world price level for shelled peanuts in the range of \$600 mt to \$700 mt, it is possible that peanuts above the minimum access would be imported into

Table 6.

Estimated Change in Peanut Use Resulting from Farm Price Changes

Support or Farm Price (\$/ton)	Percent Change in Wholesale	Percent Change in Use in			
		Peanut Butter	Snack Peanuts	Candy	Roasted Peanuts
		-----Percent-----			
700	3.1	-0.5	-0.7	-0.2	-1.7
675	0.0	0.0	0.0	0.0	0.0
600	-9.3	1.5	2.2	0.7	5.1
550	-15.5	2.5	3.7	1.2	8.5
500	-21.7	3.5	5.2	1.7	11.8
400	-31.7	5.1	7.5	2.5	17.3
350	-40.3	6.5	9.6	3.2	22.0

Source: Tables 5 and Zhang, Fletcher and Carley.

the United States. This is based on the assumption that the price support for domestic marketing quota would remain at its current level.

Decreasing the marketing quota to adjust to minimum access imports and decreasing the support price to meet world price competition would reduce gross income to peanut farmers. Under GATT, the reduction could range from \$70 million in the first year to more than \$160 million after six years. Income reduction to peanut farmers would have an economic impact on rural communities both in income flow and tax base. Quota rental rates would decrease, impacting on rental income.

The buyer-sheller sector could be impacted by a reduction in peanut production, especially in some less efficient production areas. Price variability and risk may increase. This could lead to a need for changes in marketing methods and strategies, changes in contractual relationships, and increasing emphasis on buying high quality peanuts.

Peanut product manufacturers would have additional sources for peanut supplies with the opening of the U.S. market to imports. Manufacturers would need to determine the relative value of peanuts from all sources. Reliable quality and delivery will be very important. Manufacturers will face increased price variability and risk. With decreasing prices over time, they will be faced with adjusting to a price decreasing raw product. Thus,

inventory flow will become very important. With a changing competitive environment, pricing methods and marketing strategies will change.

The consumer may be able to buy peanut products at a lower price. However, decreasing the farm price by \$175 per ton shows only a \$.15 decrease in the retail price of a jar of peanut butter and \$.10 decrease in a package of snack peanuts. With such a decrease in the farm price of 25 percent, retail prices and peanut use would not be expected to change more than in a range of 4 percent to 7 percent. With the current wide variation in retail prices for peanut products, consumers can save more by shopping for the lowest priced products than they might save if prices for raw shelled peanuts were decreased.

Notes

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